NIAGARA'S KNOWLEDGE ABOUT, ATTITUDE TOWARDS, COMFORT LEVEL TALKING ABOUT, AND RESPONSE TO, SUICIDE

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Niagara Region
PUBLIC HEALTH

EXECUTIVE SUMMARY

Suicide is a public health issue that is responsible for over 3600 deaths annually across Canada (Statistics Canada, 2007). In Ontario, the province with the lowest suicide rate, there are 7.7 suicides per 100,000 population (Statistics Canada, 2011). At a local level, suicides account for approximately 40 deaths per year among Niagara residents (IntelliHEALTH, 2011). Suicide is a complex issue that requires a multifaceted approach when considering prevention efforts. As outlined by the Canadian Association for Suicide Prevention, awareness is one component of a suicide prevention strategy.

In Niagara, there is no information available about the residents' knowledge about suicide, their attitudes towards suicide, their comfort level talking about suicide, or how they would respond to someone presenting with thoughts of suicide. Gathering this information would produce a basis from which future messaging and programming could be formed. It is important to recognize where the community stands on an issue as sensitive as suicide. For this reason, Niagara Region Public Health (NRPH) developed and administered a survey to gather information about suicide awareness and attitude in Niagara. Specifically, the purpose of this survey was:

1. To identify Niagara residents' knowledge about suicide.
2. To identify attitudes towards suicide among Niagara residents.
3. To identify Niagara residents' current level of comfort talking about suicide.
4. To identify Niagara residents' response when faced with suicide.

Results suggest that the Niagara community appears to be ready to receive messaging and programming pertaining to suicide prevention. There is a willingness to start the conversation about suicide. Future recommendations are discussed within the report. This information can be used to help enhance Niagara's ability to become a suicide safe community.

INTRODUCTION

Across Canada, suicide accounts for over 3600 deaths annually (Statistics Canada, 2007). Suicide accounts for approximately 20% of all deaths for individuals between 15-34 years of age, making it the 2nd leading cause of death for that age group (Statistics Canada, 2007). Without taking emphasis away from the emotional pain left by the loss of a human life, it is important to investigate the economic burden of suicides. A New Brunswick study suggests that the direct and indirect costs of a death by suicide in the year 1996 were $849,877.80 (Clayton & Barceló, 1999). This study was unable to account for the costs of an attempted suicide.

In Ontario, the suicide rate is 7.7 deaths per 100,000, making it the lowest rate of all Canadian provinces and territories. In Niagara, the suicide rate is 9.8 deaths per 100,000, which is slightly higher than the provincial average (Statistics Canada, 2011). A bi-annual study conducted by the Centre for Addictions & Mental Health found that approximately 14% of students in grades 7-12 in Niagara[1] reported having serious thoughts of suicide in the year prior to survey administration (OSDUHS, 2009). Furthermore, 4% of students reported actually attempting suicide in the year prior (OSDUHS, 2009). At a local level, the 2010 NRPH Report on Preventable Injuries has identified intentional self-harm (suicide) as one of the top injury priorities. In Niagara, from 2003-2009 there was a yearly average of over 40 deaths, 700 emergency room visits, and 300 hospitalizations resulting from intentional injuries (IntelliHEALTH, 2011). As evidenced by these statistics, it is clear that suicide is a significant public health concern in the Niagara region.

Suicide is not an issue that impacts only one segment of the population. Individuals from various age groups, cultural backgrounds, and genders die by suicide. One of the most notable risk factors for suicide is mental illness. Research suggests that more than 90 percent of individuals who die by suicide have a diagnosable mental illness (Conwell et al., 1996; Arsenault-Lapierre et al., 2004). Furthermore, as evidenced by King et al. (2008), there is an increased risk of both suicide ideation and attempts among the lesbian, gay, and bisexual population. There is also a significant body of literature that suggests a strong link between bullying and increased risk for suicide (Kim et al., 2008). This is important to consider given that, in a survey of students administered in 2009, 36.4% of students in grades 7-12 in Niagara[1] reported being bullied in the previous year (CAMH, 2009). Given the variety of biopsychosocial, environmental, and sociocultural risk factors for suicide, it is evident that no single population is immune to the risk of suicide.

BACKGROUND

The Canadian Association for Suicide Prevention (CASP) released a Blueprint for a Canadian National Suicide Prevention Strategy in 2004. The document outlines some guiding principles for suicide prevention efforts across the country. The Niagara Suicide Prevention Coalition (NSPC) formed in 2003 due to concern regarding the increase in the number of suicides in the Niagara region. The coalition has

[1] this data is representative of the Hamilton, Niagara, Haldimand, and Brant Local Health Integration Network (LHIN)

grown to represent a variety of community agencies and members from across Niagara. A Regional Strategy released in 2006 identified a number of goals and objectives that would support efforts to prevent suicides in Niagara. The strategy outlines a comprehensive approach to suicide prevention through the lens of prevention, intervention, and postvention. Part of the comprehensive approach outlines the need to raise awareness about suicide.

As outlined by the CASP strategy, improving public understanding that breaking the silence pertaining to suicide increases realistic opportunities to save lives and to reduce suffering. To date there has been no large scale suicide awareness campaigns within the Niagara region. Suicide is often a sensitive subject which requires caution in effort to prevent adverse, unintended negative outcomes. An environmental scan of existing awareness campaigns provided some insight. For example, Daigle et al. (2006) modeled their research regarding Suicide Prevention Week campaign around the theory of planned behaviour as seen in Figure 1. This model suggests that increasing knowledge and awareness represents the first step in shifting attitudes, which consequently may result in a higher likelihood of behaviour change. The Suicide Prevention Week social marketing campaign resulted in increased knowledge however no change in attitude or behaviour was reported. There were no unintended adverse events observed as a result of their awareness campaign (Daigle et al., 2006).

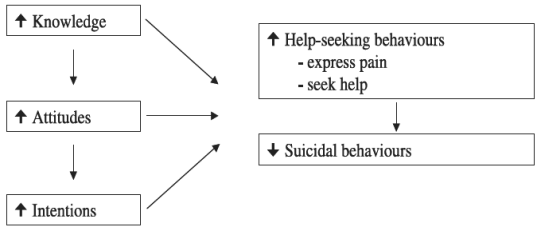


Figure 1. Theorization of the impact of a suicide prevention week (after Ajzen & Fishbein, 1980).

The Choose Life 'Suicide. Don't hide it. Talk about it.' campaign in Scotland, is another example of a public awareness campaigns regarding suicide (see Appendix A). The campaign was specifically designed to raise awareness of suicide and increase knowledge of supporting resources and methods of prevention (Choose Life, 2008). The pre- and post- evaluation suggested that 25 percent of the post-test group recall being exposed to information regarding suicide (an increase of 12 percent from pre-test). Furthermore, of the 419 people who completed the post-test, 33 percent claim to recall the 'Suicide. Don't hide it. Talk about it.' tagline. As well, from pre- to post- evaluation the percentage of individuals that report being comfortable talking about suicide rose from 31 to 41 percent, respectively. This campaign suggests a promising practice in terms of increasing awareness regarding the issue of suicide.

As highlighted by Kodaka et al. (2010), understanding attitudes toward suicide might be useful information for suicide prevention efforts. With uncertainty surrounding how Niagara residents perceive the issue of suicide, an opportunity was identified to gather this information as a baseline of Niagara's attitudes, knowledge, and beliefs regarding suicide. This information will inform future awareness and education campaigns, by ensuring that relevant messaging is developed to meet the community's needs.

Working from the theory of planned behaviour we know that when you increase knowledge, attitudes and increase help-seeking behaviour it is likely to reduce a targeted behaviour. Therefore, we felt that an environmental scan was needed to understand the current level of Niagara residence's knowledge of

and attitudes toward suicide and response to a person with suicidal ideation. These results can inform Niagara Region public health where to target suicide prevention messaged.

After speaking to community partners it was evident that frontline workers felt that people do not feel comfortable discussing suicide. Therefore, measuring Niagara's residence current comfort level talking about suicide became another objective of the survey. The questions that were used to measure the 4 objectives are outlined below.

Knowledge

The first objective is to identify Niagara residents' knowledge about suicide. To identify this information seven questions were asked. To assess if Niagara residents' feel suicide is a problem in Niagara, the following question was asked "I think suicide is a problem in Niagara". To identify if people felt that suicides can be prevented, the following question was asked "I think most suicides can be prevented". Further, to assess if people think you can identify someone at risk of suicide; the following question was asked "I think people who are suicidal give clear signs that they want to die." To assess Niagara residents' knowledge around what populations die by suicide; the following questions were asked: "I believe anyone can be at risk for suicide" and "I think that all suicides are a result of mental illness." To assess if Niagara residents feel that talking about suicide will give someone the idea to kill themself the following question was asked "I think that if you ask someone who is suicidal, about suicide, they will be more likely to attempt suicide". Lastly, to see if Niagara residents feel they can assist in preventing suicides, the following question was asked "I think that people other than professionals can help people prevent suicides".

Attitudes

The second objective is to identify attitudes towards suicide among Niagara residents. To identify this information seven questions were asked to participants. To understand if Niagara resident feel that suicide is an important issue to address, the following question was asked "I am concerned about suicide in Niagara." To understand people's negative attitudes towards suicide the following questions were asked: "I think people who die by suicide are selfish."; "I think people who die by suicide are taking the easy way out." and "I feel it is none of my business if someone wants to kill his or her self." To understand if people feel that people who are suicidal want to die or end the emotional pain they are in; the following question was asked "I believe that people experiencing thoughts of suicide want to die." To assess if people feel they can help prevent someone from killing themselves the following question was asked "I feel is someone really wants to kill him or herself, there is not much I can do about it." To understand if people's attitudes towards suicide are influenced by their religious or cultural identity, the following question was asked "I think that how I feel about suicide is strongly influenced by the religious and /or cultural group I identify with."

Comfort Level

The third objective is to identify Niagara residents' current level of comfort talking about suicide. To identify this information five questions were asked to participants. The writers were unsure if people

were comfortable discussing death, so to see if there is a difference between suicide and death the writers asked the following question. “I am comfortable talking about death.” Further, the team asked the three following question to assess if people comfort levels change in regards to talking about suicide with someone contemplating, someone who has attempted and after a suicide. “I would be comfortable talking about suicide to someone experiencing thoughts of suicide”, I would be comfortable talking about suicide to a person who has recently attempted suicide.” And “I would be comfortable talking about suicide with some who has been affected by suicide”. Lastly, To assess if comfort level differed for participants in regards to listening and talking about suicide, the following question was asked “I would be comfortable listening to someone talk about their thoughts of suicide.”

Responses when faced with suicide

The fourth objective is to identify Niagara residents’ response when faced with suicide. To obtain this information a scenario question was asked “A friend comes to you expressing thoughts of suicide (e.g., ‘I just do not think I can do this anymore,’ or ‘I would be better off dead.’) How would you respond?’”. Nine responses were provided to assess individual’s emotional response (i.e., “I would feel scared”, I would wish the person would have told someone else”), if they would not act on the comment (i.e., “I would not know what to do”, “I would ignore the comment” “I would keep it to myself” and “I would not take the comment seriously”), or seek help for the friend (i.e., “ I would ask the person if they were having thoughts of suicide”, “I would try to convince them life is not so bad”, and” I would call 911 or take them to the hospital.”

DESCRIPTION OF SURVEY

The aim of this evaluation was to establish a baseline of the perceptions surrounding the issue of suicide within the Niagara region. This information will be used to inform future programmatic direction, awareness campaigns, and educational opportunities in Niagara.

The suicide survey was a 32-item survey that asked participants about: demographic information, perception of the issue, comfort level talking about suicide in various capacities, and response to a scenario involving suicide. This tool was developed by identifying and adapting relevant components of pre-existing tools (Aseltine et al., 2007; Spirito et al., 1988). See Appendix B for survey.

The survey was created to reflect the following objectives:

1. To identify Niagara residents’ knowledge about suicide.
2. To identify attitudes towards suicide among Niagara residents.
3. To identify Niagara residents’ current level of comfort talking about suicide.
4. To identify Niagara residents’ response when faced with suicide.

METHODOLOGIES

Study Population

The study population was limited to individuals above the age of 18 years old. The primary target audience was Niagara residents from various genders, ethnicities, and socio-economic statuses. Suicide is not discriminatory, therefore it was important to gather data from a variety of perspectives. The goal was to achieve a sample size of 300 individuals above the age of 18 years old. A convenience sample was gathered based on surveys collected through two mediums, online and hardcopy surveys. The online survey was promoted through Facebook advertisements and on the Niagara Region website. The hardcopy surveys were distributed to select Niagara businesses for staff to complete during the lunch hour.

Participants completed the surveys with implied consent through self-completed surveys online and onsite which were collected via drop boxes. The incentive to complete the survey was an opportunity to win a $100 gift certificate to a Niagara restaurant of choice.

Ethical Considerations

The project underwent review in accordance with the policies and procedures of the NRPH Ethics Review Committee. All data were treated as confidential and no identifying information was collected from the participants. Surveys were housed by NRPH in a secure fashion.

RESULTS

Demographics

A total of 408 eligible respondents completed the survey. Not all respondents answered every question, and as such, some of the totals do not equal 408. There were 311 (76%) female respondents and 97 (23.7%) male respondents (Table 1). As seen in Table 2, the age range of survey respondents was well distributed among the eligible age categories. Relative to the age distribution in the population most age groups were over represented with only the 65 and over population being highly underrepresented in the sample population (Figure 1). There were participants from all 12 municipalities, however, as highlighted in Figure 2, there was some variation relative to the actual population distribution by municipality.

Table 1. Gender of respondents

Gender	n	%
Female	311	76.0
Male	97	23.7
Total	408	100.0

Table 2. Age distribution of survey respondents.

Age category	#	%
18-24	50	12.6
25-29	56	14.1
30-34	51	12.8
35-39	39	9.8
40-44	46	11.6
45-49	57	14.4
50-54	40	10.1
55-59	31	7.8
60-64	18	4.5
65 and above	9	2.3
Total	**397**	**100.0**

Figure 1

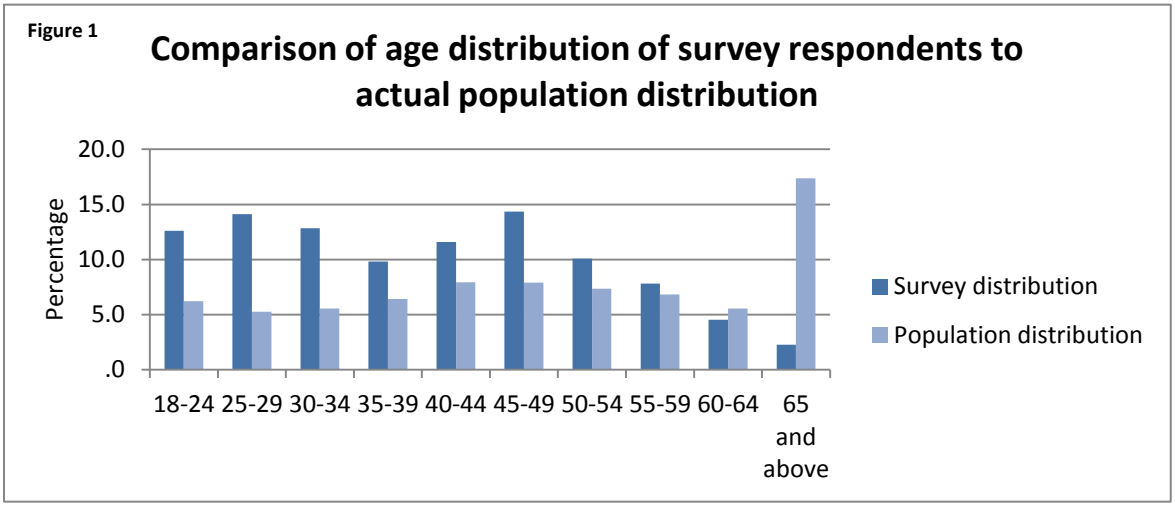
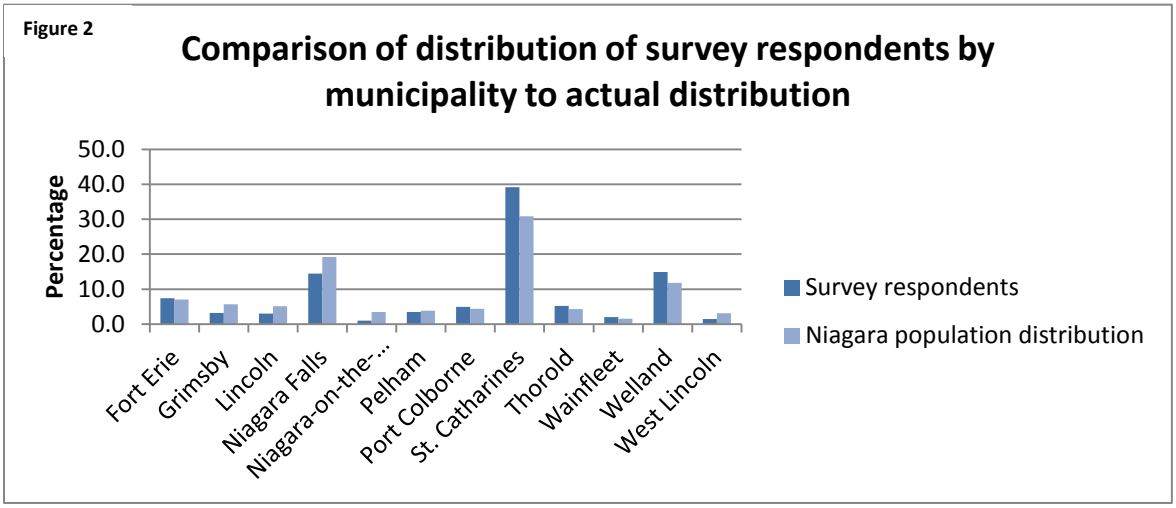


Figure 2



Objectives

The objectives of this survey were to identify: attitudes towards suicide among Niagara residents, knowledge levels about suicide among Niagara residents, Niagara residents' current level of comfort talking about suicide, and Niagara residents' response when faced with suicide. Results for each these objectives follow. For analysis purposes the original 6-point scale that ranged from strongly disagree, disagree, agree, to strongly agree, was combined into either disagree or agree.

Objective 1: To identify Niagara residents' knowledge about suicide

The first objective for this survey was to identify the level of knowledge of Niagara residents surrounding the issue of suicide. These questions were generated based on facts surrounding suicide and can loosely be interpreted as attitudes. Three quarters (75.8%) of respondents agree that most suicides can be prevented. The vast majority (82.4%) believe that anyone can be at risk of suicide. A minority of respondents (36.2%) believe that people who are suicidal give clear signs they want to die.

No significant differences ($p<0.05$) existed by gender. As well, results were categorized into three groups: 18-34, 35-49, and 50+ years old, and then analyzed using a chi-square test. There were no significant differences between age groups for any of the knowledge based questions.

Table 3. Percentage of respondents who agreed/disagreed with knowledge statements.

Statement	Disagree		Agree	
	n	%	n	%
I think most suicides can be prevented.	99	24.2	310	75.8
I believe anyone can be at risk of suicide.	72	17.6	337	82.4
I think that all suicides are a result of a mental illness.	308	75.3	101	24.7
I think people who are suicidal give clear signs that they want to die.	261	63.8	148	36.2
I think that if you ask someone who is suicidal, about suicide, they will be more likely to attempt suicide.	359	87.8	50	12.2
I think that people other than professionals can help people prevent suicide.	57	13.9	352	86.1
I think suicide is a problem in Niagara.	118	28.9	288	70.9

Objective 2: To identify attitudes towards suicide among Niagara residents

In order to determine attitudes towards suicide a series of statements were presented to the respondents. The level of agreement towards these statements is displayed in Table 4. As there were no wrong or right answers, this information was collected to get an indication of the raw attitudes that

exist towards suicide. As evidenced by the responses the majority of respondents answered in a similar fashion. The statement with the greatest margin of difference in terms of responses was 'I think people who die by suicide are selfish'. Approximately 30 percent of respondents agree with this statement with 70 percent in disagreement. The statement with the greatest accord is 'I feel it is none of my business if someone wants to kill his or her self'. An overwhelming 89.7 percent of respondents disagree with this statement.

When these results were dichotomized by gender some statistically significant differences ($p<0.05$) arose (Table 5). The greatest disparity between genders exists for the statement 'I think people who die by suicide are taking the easy way out'. A greater percentage of males (39.6%) as compared to females (24.8%) were in agreement with this statement. Furthermore, more males (20.8%) than females (6.8%) feel it is none of their business should someone chose to end their own life. Further, less males are concerned with suicide in Niagara compared to females.

The attitude based results were also analyzed by age group (18-34, 35-49, and 50+ years old). A chi-square analysis found a significant difference ($p<0.05$) between age groups for one attitude statement (Table 6). The youngest respondents are most likely to agree with the statement 'I think people who die by suicide are taking the easy way out'. The eldest age group (50+ years old) was least likely to agree with this statement.

Table 4. Percentage of respondents who agreed/disagreed with attitude statements.

Statement	Disagree		Agree	
	n	%	n	%
I think people who die by suicide are selfish.	283	69.2	126	30.8
I think people who die by suicide are taking the easy way out.	293	71.8	115	28.2
I feel it is none of my business if someone wants to kill his or her self.	367	89.7	42	10.3
I believe that people experiencing thoughts of suicide want to die.	342	83.6	67	16.4
I feel if someone really wants to kill him or her self, there is not much I can do about it.	332	81.2	77	18.8
I am concerned about suicide in Niagara.	115	28.3	292	71.7
I think that how I feel about suicide is strongly influenced by the religious and/or cultural group that I identify with.	301	73.6	108	26.4

Table 5. Attitude statements which differ significantly by gender.

Statement		Disagree		Agree		p-value
		n	%	n	%	
I think people who die by suicide are	Female	233	75.2	77	24.8	0.016

taking the easy way out.	Male	58	60.4	38	39.6	
I feel it is none of my business if someone wants to kill his or her self.	Female	290	93.2	21	6.8	0.000
	Male	76	79.2	20	20.8	
I feel if someone really wants to kill him or her self, there is not much I can do about it.	Female	265	85.2	46	14.8	0.001
	Male	66	68.8	30	31.3	
I am concerned about suicide in Niagara	Female	79	25.6	230	74.4	0.048
	Male	34	35.4	62	64.6	

Table 6. I think people who die by suicide are taking the easy way out.

Age		Disagree	Agree	Total
18-34	Count	104	53	157
	%	66.2%	33.8%	100.0%
35-49	Count	103	39	142
	%	72.5%	27.5%	100.0%
50+	Count	80	18	98
	%	81.6%	18.4%	100.0%
Total	Count	287	110	397
	%	72.3%	27.7%	100.0%

Objective 3: To identify Niagara residents' current level of comfort talking about suicide

Talking about suicide is one step towards breaking the silence around suicide. With this in mind, identifying people's level of comfort when talking about suicide in various contexts is important. The overwhelming majority (87.5%) of respondents are comfortable talking about death. It was anticipated that less people would be comfortable talking about suicide which was the case to varying degrees (Table 7). The item with the greatest discrepancy was talking to someone who had recently attempted suicide. Approximately 27 percent of respondents would not be comfortable talking to a person in this circumstance. There were no significant differences ($p<0.05$) by gender.

When results were broken down into age groups a significant difference ($p<0.05$) in mean score existed for one comfort statement (Table 8). 33.8% of 18-34 years old respondents disagreed with the statement 'I would be comfortable talking about suicide to a person who has recently attempted suicide' making the youngest age category the most likely to disagree with that statement. The oldest age group (50+ years old) were least likely to disagree with that particular comfort statement.

Table 7. Percentage of respondents who agreed/disagreed with comfort statements.

Statement	Disagree		Agree	
	n	%	n	%

I am comfortable talking about death.	51	12.5	358	87.5
I would be comfortable talking about suicide to someone experiencing thoughts of suicide.	80	19.6	329	80.4
I would be comfortable talking about suicide to a person who has recently attempted suicide.	110	26.9	299	73.1
I would be comfortable talking about suicide with someone who has been affected by suicide.	64	15.6	345	84.4
I would be comfortable listening to someone talk about their thoughts of suicide.	65	15.9	343	84.1

Table 8. I would be comfortable talking about suicide to a person who has recently attempted suicide.

Age		Disagree	Agree	Total
18-34	Count	53	104	157
	%	33.8%	66.2%	100.0%
35-49	Count	26	116	142
	%	18.3%	81.7%	100.0%
50+	Count	22	76	98
	%	22.4%	77.6%	100.0%
Total	Count	101	296	397
	%	25.4%	74.6%	100.0%

Objective 4: To identify Niagara residents' response when faced with suicide

The final component to the survey had participants complete a collection of statements regarding their response to a situation where someone was presenting with possible suicide ideation. These results suggest that the majority of participants would become actively engaged in helping the individual who presented themselves as having thoughts of suicide (Table 9). The vast majority of participants (87.5%) state that they would ask if the person was having thoughts of suicide. There was some disparity in the response to "I would call 911 or take them to the hospital" with 40.4 percent of people disagreeing with this statement. Nearly all (91.2%) of respondents would take the suicidal comments seriously. Three quarters (74.8%) of respondents admit that they would feel scared if someone presented themselves as having thoughts of suicide. No significant differences ($p<0.05$) existed by gender.

Several differences between age categories were evident when a chi-square analysis was ran for the response to a situation pertaining to suicide (Table 10-12). Over one quarter (26.1%) of young respondents would be unsure of how to respond should a friend present with thoughts of suicide. The 50 and over age group is most likely (87.8%) to know what to do in this circumstance. Furthermore, 5.7 percent of the youngest (18-34 years old) respondents would ignore a comment made by a friend pertaining to suicide. This was the only age group with respondents who would ignore a suicide threat.

Finally, relative to the other age groups, the youngest age group is most likely (13.4%) to keep a friend's suicidal comment to themselves.

Table 9. Percentage of respondents who agreed/disagreed with statements about response to someone presenting with thoughts of suicide.

Statement	Disagree		Agree	
	n	%	n	%
I would not know what to do.	326	79.7	83	20.3
I would ignore the comment.	397	97.1	12	2.9
I would keep it to myself.	369	90.2	40	9.8
I would ask the person if they were having thoughts of suicide.	51	12.5	358	87.5
I would wish the person had told someone else.	320	78.2	89	21.8
I would try to convince them that life is not so bad.	103	25.2	306	74.8
I would call 911 or take them to the hospital.	165	40.4	243	59.6
I would not take the comment seriously.	373	91.2	36	8.8
I would feel scared.	103	25.2	306	74.8

Table 10. I would not know what to do.

Age		Disagree	Agree	Total
18-34	Count	116	41	157
	%	73.9%	26.1%	100.0%
35-49	Count	116	26	142
	%	81.7%	18.3%	100.0%
50+	Count	86	12	98
	%	87.8%	12.2%	100.0%
Total	Count	318	79	397
	%	80.1%	19.9%	100.0%

Table 11. I would ignore the comment.

Age	Disagree	Agree	Total

18-34	Count	148	9	157
	%	94.3%	5.7%	100.0%
35-49	Count	142	0	142
	%	100.0%	0%	100.0%
50+	Count	98	0	98
	%	100.0%	0%	100.0%
Total	Count	388	9	397
	%	97.7%	2.3%	100.0%

Table 12. I would keep it to myself.

Age		Disagree	Agree	Total
18-34	Count	136	21	157
	%	86.6%	13.4%	100.0%
35-49	Count	134	8	142
	%	94.4%	5.6%	100.0%
50+	Count	91	7	98
	%	92.9%	7.1%	100.0%
Total	Count	361	36	397
	%	90.9%	9.1%	100.0%

DISCUSSION

The results of this survey offer a fresh outlook on the attitudes towards suicide among Niagara residents, knowledge levels about suicide among Niagara residents, Niagara residents' current level of comfort talking about suicide, and Niagara residents' response when faced with suicide. Analyzing the components of the survey as independent items offers one part of the story, however interpreting synthesized data enables stronger conclusions to be drawn. The survey provided valuable results that can be used to inform future suicide messaging and programming in Niagara.

As mentioned previously, there is a relationship between one's knowledge and attitudes. The first objective of the survey focused on the underlying knowledge of respondents. In general respondents appear to have a solid foundation of baseline knowledge regarding suicide. The majority of respondents (70.9%) believe that suicide is a problem in Niagara, further most (75.8%) feel that the majority of suicides can be prevented. These knowledge statements interpreted in conjunction with specific attitude statements offer a promising outlook for Niagara. For example, most respondents (89.7%) disagree with the belief that it is none of their business should someone they know want to take their own life. This suggests that the Niagara community feels they may play a role in suicide prevention efforts. Although this role is not defined, it is further supported by the notion that many respondents (86.1%) agree that people other than professionals can help prevent suicides. A significant number of respondents (81.2%) believe that if someone they knew wanted to kill themselves there is something

they could do about it. The attitudes that exist among the sample of respondents are all relatively positive. This is a favourable outcome when attempting to identify the readiness of the Niagara community to be engaged in suicide prevention efforts at a population level.

Although most attitudes highlighted were relatively positive in nature there were some that merit being highlighted. Nearly one third (30.8%) of respondents has the attitude that people who die by suicide are selfish. Although the majority of respondents do not agree with this statement, this attitude statement has the greatest degree of variation. It is important to note that although respondents have this raw attitude, many of these same respondents do see a role for individuals other than professionals to support prevention efforts.

Considering suicide prevention programs and campaigns that exist in other parts of the country and world, it was felt important to identify the comfort level people hold when talking about various issues surrounding suicide. Results suggest that respondents are overwhelmingly comfortable talking about the issue of suicide in various capacities. This is promising given that many of the existing suicide awareness campaigns, such as the Choose Life campaign, encourage people to talk about suicide. Given this type of message, it is important that people are comfortable having these conversations because they may become one part of the protective net that an individual relies on. People being comfortable talking about suicide is a starting point, it is important that they know how to approach and advance the conversation in a safe manner. As evidenced by the widely accepted Applied Suicide Intervention Skills Training (ASIST), there is a suicide intervention model that can be used to guide conversations with someone having suicide ideation (Ramsey et al., 2004). This model suggests moving through three general phases of: connecting, understanding, and assisting. This model can be considered as the equivalent to First Aid and CPR however specific to scenarios where suicide intervention is required.

The final component of the survey attempted to identify the reaction that respondents would have if a friend was presenting with thoughts of suicide (e.g., 'I just do not think I can do this anymore,' or 'I would be better off dead.'). Results suggest that respondents would provide support if their peer presented in such a manner. The response with greatest degree of uncertainty surrounds whether respondents would call 911 or take them to the hospital. Approximately 40 percent of respondents would not access these emergency services and nearly 60 percent of respondents would access these services. This divided response was anticipated as there was no right or wrong answer. Depending on the progression of the conversation, the individual experiencing thoughts of suicide may require an immediate emergency response however some individuals may not. It is important for Niagara residents to have the skills to make this distinction. What cannot be drawn from this analysis are specifics around how respondents would help the individual. Only 20.3 percent of respondents would not know what to do in a situation where someone presents with suicide ideation. However, among those that do feel they know how to respond to a suicide situation, there is no way through this survey tool, to determine if respondents truly know how to respond or if this is only their perception. There are appropriate and inappropriate ways to have a conversation with someone experiencing ambivalence about life (Ramsey et al., 2004). It is important to equip Niagara residents with adequate tools to approach the conversation around suicide. One component of an awareness and education campaign should focus on educating people about what actions should be taken under various circumstances.

Each scenario is different and relies on the discretion of those who are helping the individual experiencing thoughts of suicide.

There is an existing gender difference between the number of suicide deaths and non-fatal attempts. Niagara males are more likely than females to die by suicide, whereas females are more likely to present in the emergency room with injuries resulting from an attempted suicide (IntelliHEALTH, 2011). Interesting findings were evident when survey results were interpreted by gender. Although there is no wrong or right attitude towards suicide, males were more likely than females to have negative attitudes towards suicide. Referring back to the behaviour change model discussed by Daigle et al. (2006), one's knowledge regarding a topic is suggested to influence their attitude which will ultimately determine behaviour. Based on the results of the current analysis, there is a disconnect between knowledge, attitudes, and behaviours when interpreting results by gender. The only significant difference by gender exists for attitudes, however one would also anticipate differences for knowledge and potentially behaviour as per the model explained by Daigle et al. (2006). Perhaps this suggests that males need to be further educated on suicide to influence their attitudes. Additional education might influence males to feel that they have a role in helping someone wanting to kill themselves. Ultimately this might improve help seeking behaviour for one's self and for others when someone is experiencing suicide ideation.

Differences by age were also evident. Based on Tables 6, 8, and 10-12 there is a statistically significant ($p<0.05$) difference among age groups for several responses. Young respondents (18-34 years old) are not as comfortable talking about suicide as other age groups. Further, young people are least likely to respond in a favourable manner to a friend presenting with thoughts of suicide. This suggests that life experiences may influence knowledge, attitudes, and behaviour towards suicide. This difference between age groups suggests a potential target audience for future messaging and campaigns.

CONCLUSION

In summary, based on the knowledge, attitudes, comfort level talking about suicide, and response to suicide reported by respondents, the Niagara community appears to be ready to receive messaging and programming pertaining to suicide prevention. To date, there has been no widespread awareness or education campaign pertaining to suicide in the Niagara community. However, a nationwide survey suggests that 75 percent of Canadians strongly agree that Canadians must freely discuss suicide without any fear or shame in order to prevent youth suicides (Your Life Counts Harris Decima, 2010). The results of the current survey suggest that Niagara is ready to start a conversation about suicide. Although awareness alone is not expected to decrease the number of suicides that may occur in the region, it is perceived as a launch point and one part of a comprehensive suicide prevention strategy (Parliamentary Committee on Palliative and Compassionate Care, 2011). Raising awareness would be one step in making Niagara a suicide safer community. It is recommended to identify existing campaigns and initiatives that have experienced success in raising the level of awareness and adapt and modify those resources to fit the Niagara picture. Based on these results, in Niagara, males and the younger target audience should be the primary target audience for future programming.

Limitations

The results of this investigation are limited by several factors. The self-reported nature of the information collected exposes results to self-report bias. Given that the survey inquired about raw attitudes on a relatively controversial topic it is possible that respondents provided socially desirable responses. This analysis was limited to adults over the age of 18 years old, based on the observed age differences, in the future it would be valuable to acquire similar information for the youth population. The sample was limited to 409 respondents, although there were respondents representing all 12 Niagara municipalities, results should be interpreted with caution and the generalizability is limited. A notable limitation is the underrepresentation of the 65 and over demographic. As there appear to be some age differences in survey responses, it is important to consider that the 409 respondents do not reflect Niagara's age demographic. Finally, based on the vehicle used to disseminate the survey, it is unknown who completed the questionnaire. There is no method to decipher whether respondents were in the mental health or the health care profession, or whether respondents were representative of the various professions that exist in Niagara. Results should be interpreted in light of these limitations.

FUTURE RECOMMENDATIONS

Recommendation # 1

Find appropriate means (i.e. focus group) to determine which resources Niagara residents are aware of when seeking help for themselves or others. Respondents were comfortable talking about suicide and appear willing to support others, therefore it is important to ensure they are aware of appropriate resources.

Recommendation # 2

The Niagara community appears ready to receive suicide prevention messaging and programming. Conduct an environmental scan of relevant evidence-based awareness campaigns, ground within an appropriate behaviour change model (i.e. Theory of planned behaviour), determine relevant messaging for the Niagara community (i.e. warning signs, help seeking behaviour, prevalence of suicide, etc.), and implement an awareness campaign. Ensure evaluation is a component of future awareness and education campaigns.

Recommendation # 3

Based on suicide death data and the results from this survey, males should be a primary target audience. Furthermore, the younger population (ages 18-34) should also be a main audience for messaging. For the 65 and over age group additional investigation is required regarding their knowledge of, attitudes towards, comfort level talking about, and response to, suicide.

Recommendation # 4

Raising awareness is only one part of a comprehensive suicide prevention strategy. Education, environmental supports, and enforcement need to work collectively to comprise a multipronged approach to suicide prevention. Ensure that any awareness and educational campaign is integrated with other aspects of an overarching suicide prevention strategy.

Recommendation # 5

Advocate for suicide intervention training for gatekeepers within Niagara. There are various trainings available for example, ASIST, Safe Talk and Question, Persuade, and Refer (QPR), but results from this survey suggest that very few respondents are trained with the skills to have a conversation with someone potentially having thoughts of suicide.

REFERENCES

Arsenault-Lapierre, G., Kim, C., & Turecki, G. (2004). Psychiatric diagnoses in 3275 suicides: a meta-analysis. *BMC Psychiatry, 4,* 1-11.

Aseltine, R., James, A., Schilling, E., & Glanovsky, J. (2007). Evaluating the SOS suicide prevention program: a replication and extension. *BMC Public Health, 7.*

Centre for Addictions and Mental Health (2009). Ontario Student Drug Use and Health Survey. Retrieved from www.camh.net.

Clayton, D., & Barceló, A. (1999). The cost of suicide mortality in New Brunswick, 1996. *Chronic Diseases in Canada, 20*, 89-95.

Conwell, Y., Duberstein, P., Cox, C., Herrmann, J., Forbes, N., & Caine, E. (1996). Relationship of age and axis I diagnoses in victims of completed suicide: a psychological autopsy study. *The American Journal of Psychiatry, 153,* 1001-1008.

Daigle, M., Beausoleil, L., Brisoux, J., Raymond, S., Charbonneau, L., & Desaulniers, J. (2006). Reaching suicidal people with media campaigns: New challenges for a new country. *Crisis, 27,* 172-180.

Kim, Y.S., & Leventhal, B. (2008). Bullying and suicide: A review. *International Journal of Adolescent Medicine and Health, 20,* 133-154.

King, M., Semlyen, J., See Tai, S., Killaspy, H., Osborn, D., Popelyuk, D., & Nazareth, I. (2008). A systematic review of mental disorders, suicide, and deliberate self harm in lesbian, gay and bisexual people. *BMC Psychiatry, 8*, 1-17.

Kodaka, M., Postuvan, V., Inagaki, M., & Yamada, M. (2010). A systematic review of scales that measure attitudes towards suicide. *International Journal of Social Psychiatry, 57*, 338-361.

Parliamentary Committee on Palliative and Compassionate Care. (2011). Not to be forgotten: Care of vulnerable Canadians. Retrieved from http://pcpcc-cpspsc.com/wp-content/uploads/2011/11/ReportEN.pdf.

Ramsay, R., Tanney, B., Lang, W., & Kinzelm T. (2004). Suicide Intervention Handbook. Calgary, Alberta: LivingWorks Education Inc.

Spirito, A., Overholser, J., Ashworth, S., Morgan, J., & Benedict-Drew, C. (1988). Evaluation of a suicide awareness curriculum for high school students. *Journal of the American Academy of Child & Adolescent Psychiatry, 27*, 705-711.

Vital Statistics 2003-2007, Ontario Ministry of Health & Long-Term Care, IntelliHEALTH Ontario Data, extracted November, 2011.

Your Life Counts (2010). Harris/decimal national telephone omnibus: Your life counts.

APPENDIX A

Niagara Region
PUBLIC HEALTH


chooselife
The national strategy and action plan to prevent suicide in Scotland
SUICIDAL
Suicide. Don't hide it. Talk about it.
Samaritans 08457 90 90 90 Breathing Space 0800 83 85 87
healthier scotland
SCOTTISH GOVERNMENT

APPENDIX B

PLEASE NOTE: This survey asks several questions about your attitudes, knowledge, response, and comfort level talking about suicide. If suicide is a sensitive topic for you, feel free to stop the survey at any time. If you need emotional support, a list of resources can be found by clicking 'here'.

Thank you for taking time to complete the Suicide Survey. Niagara Region Public Health (NRPH) would like to ask you questions about your attitudes and knowledge about suicide by completing the survey questions below. Your responses will be used to help guide future NRPH programs and services.

This survey should take approximately 10 minutes to complete. By completing this survey you are acknowledging that:

- you understand that this survey is voluntary and that you can stop answering questions at any time;
- you understand that no personal information will be collected and your answers will remain completely confidential;
- you consent to allow your answers to be entered into a NRPH database;
- you understand that only NRPH authorized personnel will be able to access your answers; and
- you consent to allow your answers to be analyzed for the purpose of report generation, program evaluation and improvement of public health programs and services.

If you have any questions before continuing, or at any time during the completion of this survey, please feel free to contact Ian Masse (905-688-8248 ext. 7234; ian.masse@niagararegion.ca) or Ryan Alexander (905-688-8248 ext. 7306; ryan.alexander@niagararegion.ca).

Suicide Survey

Thank you for taking the time to complete this survey. Please read each question carefully. Your participation is completely voluntary and you may stop at any time.

1. What is your gender?

□ Female □ Intersex □ Male

□ Transgender □ Transsexual □ Other _____

2. What is your current age in years? _____

3. In which municipality do you currently live?

□ Fort Erie □ Grimsby □ Lincoln □ Niagara Falls

□ Niagara-on-the-Lake □ Pelham □ Port Colborne □ St. Catharines

□ Thorold □ Wainfleet □ Welland □ West Lincoln

□ Other _____

4. **In the following section, we are interested in finding out how you feel about suicide. Please read the following statements below and indicate your level of agreement with each of the statements. Please answer as honestly as possible; there are no right or wrong answers.**

Statements:	**Strongly disagree**	**Disagree**	**Somewhat disagree**	**Somewhat agree**	**Agree**	**Strongly agree**
I think most suicides can be prevented.	○	○	○	○	○	○
I believe anyone can be at risk of suicide.	○	○	○	○	○	○
I think people who are suicidal give clear signs that they want to die.	○	○	○	○	○	○
I think that if you ask someone who is suicidal, about suicide, they will be more likely to attempt suicide.	○	○	○	○	○	○
I think people who die by suicide are selfish.	○	○	○	○	○	○
I think that people other than professionals can help people prevent suicide.	○	○	○	○	○	○
I think people who die by suicide are taking the easy way out.	○	○	○	○	○	○
I feel it is none of my business if someone wants to kill his or her self.	○	○	○	○	○	○
I believe that people experiencing thoughts of suicide want to die.	○	○	○	○	○	○
I think that all suicides are a result of a mental illness.	○	○	○	○	○	○
I feel if someone really wants to kill him or her self, there is not much I can do about it.	○	○	○	○	○	○
I think suicide is a problem in Niagara.	○	○	○	○	○	○
I am concerned about suicide in Niagara.	○	○	○	○	○	○

I am comfortable talking about death.	○	○	○	○	○	○
I would be comfortable talking about suicide to someone experiencing thoughts of suicide.	○	○	○	○	○	○
I would be comfortable talking about suicide to a person who has recently attempted suicide.	○	○	○	○	○	○
I would be comfortable talking about suicide with someone who has been affected by suicide.	○	○	○	○	○	○
I would be comfortable listening to someone talk about their thoughts of suicide.	○	○	○	○	○	○
I think that how I feel about suicide is strongly influenced by the religious and/or cultural group that I identify with.	○	○	○	○	○	○

5. **In the following section we are interested in finding out how you would respond to a friend presenting with thoughts of suicide. Please read the following statements below and indicate your level of agreement with each of the statements.**

A friend comes to you expressing thoughts of suicide (e.g., 'I just do not think I can do this anymore,' or 'I would be better off dead.'). How would you respond?

Statements:	**Strongly disagree**	**Disagree**	**Somewhat disagree**	**Somewhat agree**	**Agree**	**Strongly agree**
I would not know what to do.	○	○	○	○	○	○
I would ignore the comment.	○	○	○	○	○	○
I would keep it to myself.	○	○	○	○	○	○
I would ask the person if they were having thoughts of suicide.	○	○	○	○	○	○
I would wish the person had told someone else.	○	○	○	○	○	○
I would try to convince them that life is not so bad.	○	○	○	○	○	○
I would call 911 or take them to the hospital.	○	○	○	○	○	○
I would not take the comment seriously.	○	○	○	○	○	○
I would feel scared.	○	○	○	○	○	○

6. Have you ever received suicide intervention training?
   - ☐ No
   - ☐ Yes

   If yes, please specify the name of the training(s) _____