Profile of Suicide and Suicide Attempts In Adolescents and Young Adults in Ontario
November, 2003

Central West Health Planning Information Network

For Further Information Please Contact:

Central West Health Planning Information network
301B – 10 George Street
Hamilton, Ontario
L8P 1C8
Phone: 905-570-9952
Fax: 905-570-0974
http://www.cwhpin.ca

Table of Contents

Page

Executive Summary ***..... i***
Introduction ***..... 5***
Methods ***..... 13***
Results ***..... 24***
Discussion ***..... 48***
Conclusions.
.....57
References ***..... 59***

Appendices

A. Maps Of Northern And Southern Ontario Public Health Units**.....71**

B. Ontario Public Health Unit Areas Shown By County And Health Intelligence Unit**.....**
.....74

C. Optional And Common Content Modules CHS1.1**.....77**

D. CCHS1.1 Questions On Depression And Contact With A Mental Health Professional**.....**
.....79

E. CCHS Tables With Counts**.....86**

F. Glossary of Terms and Acronyms**.....92**

Figures

Figure 1: Major Causes of Death for 10-24 Year Olds in Ontario – 1999**……6**
Figure 2: Ontario Hospital Separations for Suicide Attempts By Age Group – 1999 **.....6**
Figure 3: Ontario Deaths by Suicide By Age Group – 1999 **……7**
Figure 4: Potential Years of Life Lost As A Result of Death by Suicide in Adolescents and Youth - Ontario 1999 **……7**
Figure 5: Framework for Data Collection by Intervention Level **……14**

Tables

Table 1: Variables and Data Sources**……16**
Table 2: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By NHIP HIU Area. Source: CCHS1.1 Share File (2000) **……26**
Table 3: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By CWHPIN HIU Area and Age group. Source: CCHS1.1 Share File (2000) **……26**
Table 4: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By SRHIP HIU Area and Age group. Source: CCHS1.1 Share File (2000) **……27**
Table 5: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By HIP

HIU Area and Age group. Source: CCHS1.1 Share File (2000) **…….27**
Table 6: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By CEHIP HIU Area and Age group. Source: CCHS1.1 Share File (2000) **…….28**
Table 7: Frequency Of Discharges from Hospital For Suicide Attempts Per Patient (Patient ID Number) For 10 to 24 Year Olds From 1997 To 2001 (Combined) In Ontario. Hospital Homeless Codes, Patients Who Were From Out Of Province Or Those Whose Place Of Residence Is Unknown Have Been Excluded From This Sample **…… …31**
Table 8: Entry Codes for Hospital Admissions for Suicide Attempts for 10-24 Year Olds in Ontario During the Calendar Years 1997-2001**……32**
Table 9: Admission categories for Hospital Admissions for Suicide Attempts for 10-24 Year Olds in Ontario During the Calendar Years 1997-001**……32**
Table 10: Mean, Median and Standard Deviation for Los for Suicide attempts 1997-1999 for 10-24 Years**……32**
Table 11: Length of Stay (LOS) for Ontario Hospitalizations For Suicide Attempts For 10-24 Year Olds For The Years 1997 – 2001 Combined For Acute Care, Altered Level Of Care, And Total Length Of Stay**……33**
Table 12: Exit Status for Hospital Admissions for Suicide Attempts for 10-24 Year Olds in Ontario During the Calendar Years 1997-2001**……33**
Table 13: Hospitalizations (Counts) and Age Specific Rates/100000 For Suicide Attempts by Age Groups and Health Intelligence Unit Area for the Combined

Years 1997-
2001**……..…..36**
Table 14: Hospital Separations for Suicide Attempts And Age Specific Rates (Per 100,000) By Public Health Units In The NHIP HIU Area For Teens And Young Adults For The Years 1997 To
2001**……37**
Table 15: Hospital Separations for Suicide Attempts And Age Specific Rates (Per 100,000) By Public Health Unit In The CWHPIN Area For Teens And Young Adults For The Years 1997 To
2001**……..38**
Table 16: Hospital Separations for Suicide Attempts And Age Specific Rates (per 100,000) By Public Health Unit In The HIP HIU Area For Teens And Young Adults For The Years 1997 To
2001**……..……39**
Table 17: Hospital Separations for Suicide Attempts and Age Specific Rates (per 100,000) By Public Health Unit in the SRHIP HIU Area For 10 –24 Year olds For The Years 1997 To
2001**……..…40**
Table 18: Hospital Separations for Suicide Attempts And Age Specific Rates (Per 100,000) By Public Health Unit In The CEHIP HIU Area For Teens And Young Adults For The Years 1997 To
2001**……41**
Table 19: Hospitalizations for Suicide Attempts By Method By HIU Area and Sex For Those Aged 10 – 24 Years Old for 1997 To 2001 Combined**……..42**
Table 20: Hospitalizations For Suicide Attempts By Poisoning By HIU Area And Sex For Those Aged 10 – 24 Years 1997 To 2001 Combined.
……43
Table 21 : Most Responsible Diagnostic Categories* For Hospital Separations For Suicide Attempt (E-Codes 950-959) For Ontario Adolescents And Youth (10-

24 Years) From 1997-
2001**.....44**
Table 22: Deaths (Counts) By Suicide* and Age Specific Rates/100000 for Ages 10-24 Years During the Years
1997,1998,1999**.....46**
Table 23: Deaths By Method of Suicide By Gender For 10-24 Year Olds In Ontario From The Combined Years
1997,1998,1999)**.....47**

Acknowledgements

Advisory Committee:

Chairperson

Grant Hollett, Health Planner, Waterloo Region Wellington Dufferin District Health Council;

Members

Andréa Carter, Suicide Prevention Resource Nurse, City of Hamilton Public Health and Community Services Department;

Linda Feldman, Senior Population Health Consultant, Central West Health Planning Information Network (CWHPIN);

Jane Gillman, Senior Health Planner Hamilton District Health Council;

Vicky Guertin, Health Planner Niagara District Health Council;

Marion McGeein, Manager Mental Health Services Brant Public Health Unit;

Lorraine Rudolph, Youth Connection Public Health Nurse Niagara PH;

Michele Singleton, Manager Mental Health Halton Public Health Unit;

Wayne Tucker, Epidemiologist Haldimand-Norfolk Public Health Unit;

Advice and Support

Dr. D. Eden – Regional Supervising Coroner for Niagara;

Fred Goettler, Bio-statistician, Policy And Planning Division, Toronto Public Health Department and Chair of the Suicide Prevention Committee in Toronto;

JoAnn Heale, Data Analyst, Waterloo Region Wellington Dufferin District Health Council.

Project Supervisor

Dr. Tom Abernathy – Director, CWHPIN

Project Staff

Ms. Linda Feldman – Senior Population Health Consultant, CWHPIN

Profile of Suicide and Suicide Attempts in Adolescents and Young Adults in Ontario

Introduction

O'Carroll et al (1996) defined suicide as a potentially self- injurious behavior, for which there is evidence (either explicit or implicit) that the person intended at some level to kill himself/herself. Suicidal behaviours are a serious national concern and a major public health problem. They contribute to morbidity, lost productivity, health care costs and premature mortality (Langlois & Morrison, 2001; Clayton & Barlcelo, 1999; Jenkins, 1997; Satcher, 2001). The impact on significant others and friends left behind is devastating. In Canada, in 1986, the potential years of life lost (PYLL) to age 75 due to suicide were 122,908/100, 000 population, 97,613 among males and 25,295 among females (Mao, Hasselback, & Davies et al, 1990; McNamee & Offord, 1994).

Especially tragic are suicidal behaviours in children, teens and youth. In 2001, 11% of students in Ontario (confidence interval: 9.3%-13.2%) reported that they had seriously considered suicide during the past year (The Centre for Addiction and Mental Health [CAMH], 2003). In 1999 (Figure1), suicide was the second leading cause of death in Ontario teens and youth. Individuals 10-24 years accounted for 25% of all Ontario hospital separations for suicide attempts and 12% of deaths by suicide in that same year (Figures 2 & 3). This amounted to 5,856 potential years of life lost (Figure 4).

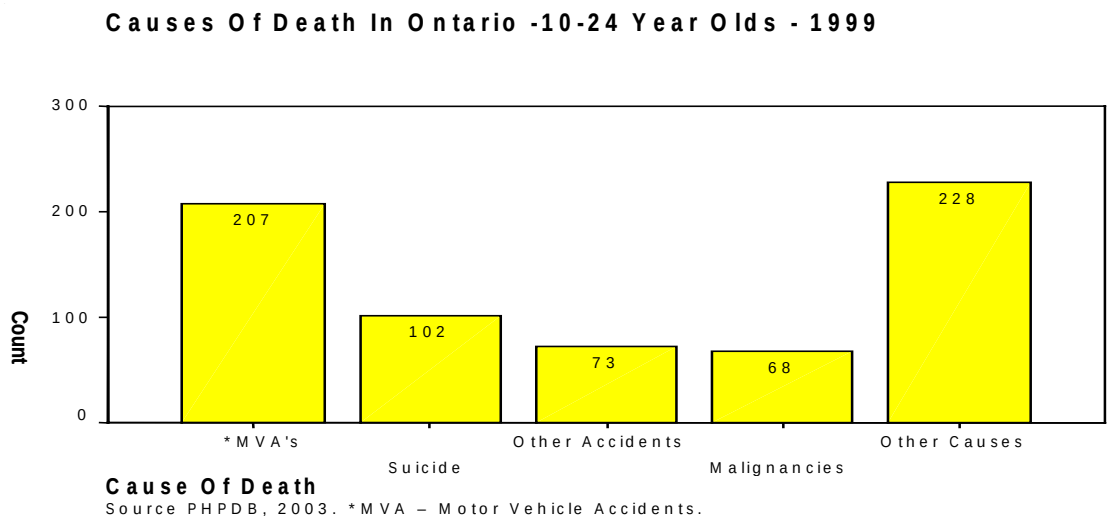

Figure 1: Major Cause of Death in Ontario 10-24 Year Olds 1999

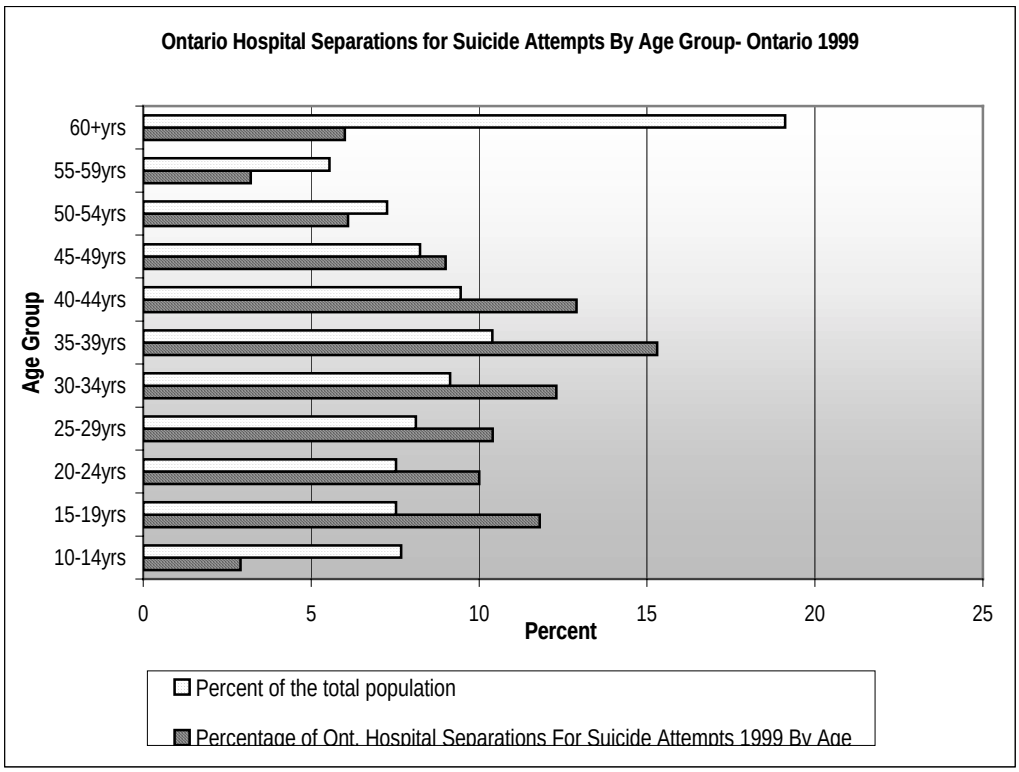

Figure 2: Ontario Hospital Separations for Suicide Attempts By Age group – 1999.
Source: PHPDB, 2003.

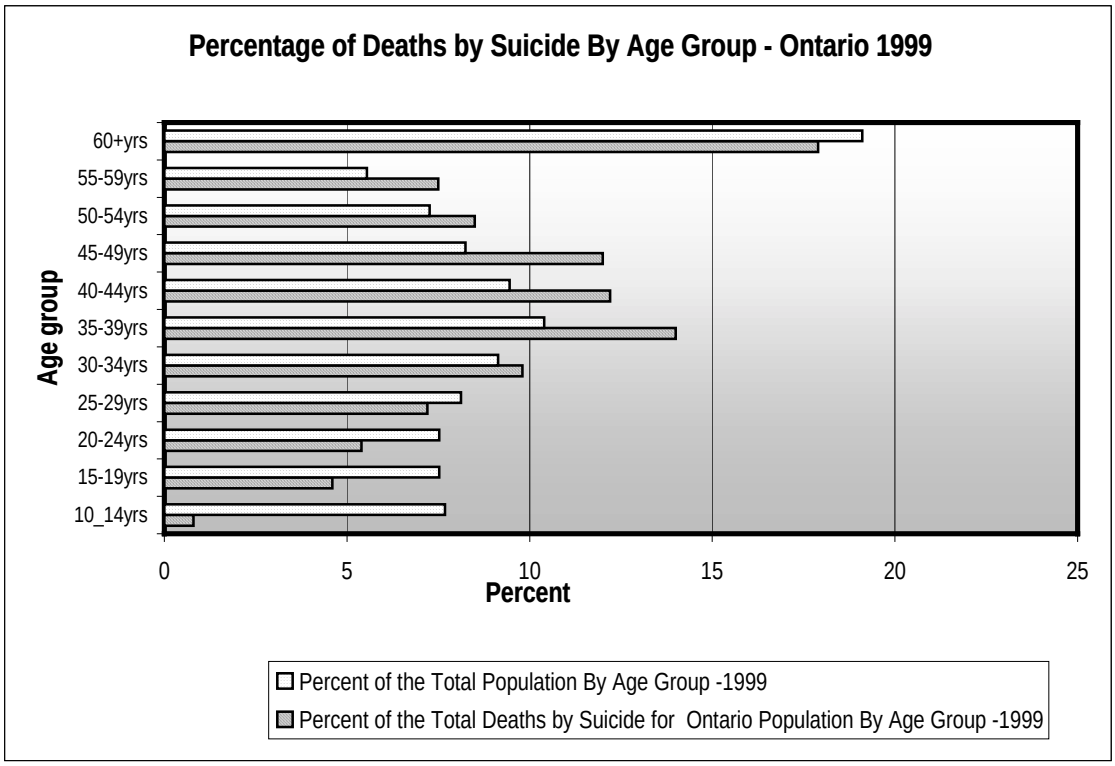

Figure 3: Percentage of Deaths by Suicide By Age Group - Ontario 1999. Out of Province and Unknown PHU Codes Have Been Excluded. Source: PHPDB, 2003

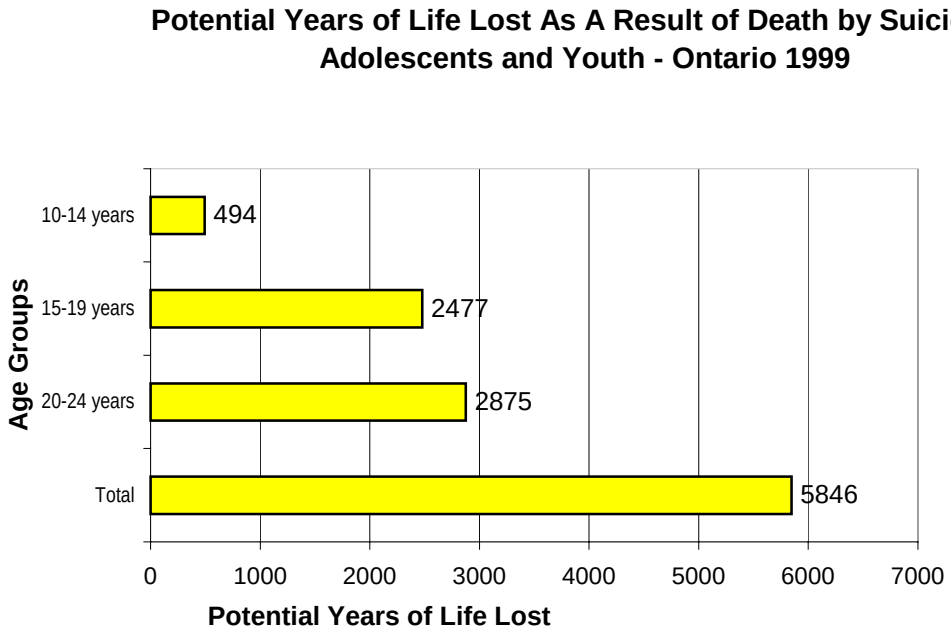

Figure 4: Potential Years of Life Lost As A Result of Death by Suicide in Adolescents and Youth - Ontario 1999. Original Data Source for Age and Death by Suicide: PHPDB, 2003.

According to the Federal/ Provincial/ Territorial Advisory Committee on Population Health (1999), compared to many other countries Canada's rates of youth suicide are high. This is especially true for young men. In Ontario and across Canada, while rates for suicide attempts in young people are much higher in females, especially the 10-19 year age group, completed suicides are considerably higher in males especially those 20-24 years (Federal/Provincial/ Territorial Advisory Committee on Population Health, 1999).

It has been reported that across Canada in 1997 there were 554 deaths from suicide in the 15 – 24 year age group (World Health Organization [WHO], 2002).

In both males and females, the greatest increase between 1960 and 1991 occurred in the 15-19 year age group, with a four and a half fold increase in males and a three-fold increase for females. Amongst males, other age groups at greater risk in 1991 compared with 1960 were those aged 10 to 14 (3.5:1) and 20 to 24 years (2.7:1). Despite the considerable increase in the suicide rate in young age groups over the last three decades, few reliable predictors of suicide in young people have been identified.

Durkheim, published first in 1915, is still considered to be an important theoretician in the area of suicide. He defined three types of suicide (Durkheim, 1951). The first type is altruistic suicide, where the individual is so closely integrated into a group or society that he or she will commit suicide for the perceived benefit of the group (Shaver, 1990). The second type is egoistic suicide, which is characterized by a strong value system, lack of integration in society, weak family ties, and a strong sense of personal responsibility. The group itself is not strong enough to provide the individual with a sufficient source of outside support and strength and the society is not sufficiently integrated to be able to collectively mitigate the individual's feelings of responsibility and guilt for moral weakness and failure.

The third type of suicide, anomic, is characterized by the absence of a strong value system and results from not being sufficiently integrated into a system of cultural values. Social norms are seen as meaningless. Feelings of loneliness,

social isolation and personal confusion are present in this type of suicide and may result in or are increased by a major life disruption (Durkheim, 1951; Shaver, 1990). When the individual is upset so that his/her horizons are broadened or, contrariwise, contracted beyond that which can be endured, conditions are at a maximum for anomic suicide (Durkheim, 1951). This typology of suicide may be seen as providing some or part of the explanation for the phenomena of teenage suicide.

Lester (1999) suggests that a high suicide rate in a country may be the consequence of an improved quality of life (Lester, 1999). He proposes that there is an increase in prevalence of personality traits associated with narcissism and antisocial personality disorders so that those who fail to achieve are likely to blame themselves when they feel compared to role models in the media. From the literature, the majority of adolescents who commit suicide, however, appear to be those with personal and social risk factors.

Research has shown the significance of several other factors in the etiology of suicide. One of the most important is the history of a previous attempt. The risk of another suicide attempt after an initial one has been reported in the research literature at rates ranging from 26.9:1 to 100:1 (McNamee & Offord, 1994). Although there are wide variations in hospital admitting practices in relation to suicidal behaviour (Gunnel, Brooks & Peters, 1996; Kapur et al, 1998) hospital admission predicts future suicidal behaviour. Repetition often occurs within the

first few months (Goodacre, Hawton, 1985). In the year after an attempted suicide, 10–15% of individuals will make a repeat attempt, 10% will be readmitted and approximately 1% will die (Rhodes, Links, Streiner et al, 2002; Gunnell, Brooks & Peters, 1996; Hall et al, 1998). Deaths from all causes are elevated in this group. Mortality rates are about 2–4 times higher than in the general population (Iribarren, Sidney, Jacobs and Weisner, 2000; Holly, Fick, and Love, 1998; Hall et al, 1998; Sellor, Hawton & Goldacre, 1990).

Preliminary data from a U.S. study (Shaffer, 1988) suggests that many adolescents commit suicide after an acute disciplinary crisis, a rejection or a humiliation. Associated psychopathology has been found in the majority of cases in U.S. psychological autopsy reports (Shaffer, 1988). Brent et al (1994) found that adolescents with a family history of depression, substance abuse, and parental discord were more likely to commit suicide. In a review of studies of young people (15-29 years) who took their lives, borderline personality disorder was diagnosed in 33% of cases (Runeson, 1989). The mentally ill (those with affective disorder, schizophrenia, neurosis, personality disorder or organic brain syndrome) and people with drug and alcohol problems are at greater risk (by a factor of 2.4 to 23 times) than the general population (Pokorney, 1983; Goldstein, Black, Nasrallah et al, 1991).

Rates also vary by marital status (higher for single and divorced people) and gender. Women make more attempts but men commit more suicides that end in

death. It has been suggested that gender differences may be partly because women are better at self-reporting their medical histories than men and because women are more likely to overdose on pain medications such as acetaminophen (Rhodes, Links, Streiner et al, 2002). Women are more likely to seek and receive help and emotional support, will more readily consider the consequences of their suicidal behaviour on others, and will be more inclusive in considering their options before acting (McNamee & Offord, 1994). A suicide attempt may be more consistent with a woman's attempt to send a message to another person for help (Murphy, 1998). Female hormones are not considered a major influence in suicide risk (Rhodes, Links, Streiner et al, 2002).

Other identified high-risk groups include new immigrants, those with a chronic or terminal physical illness, Aboriginal and Native people especially youth in northern communities, people with a family history of suicide, and persons in custody (McNamee & Offord, 1994). Gay, lesbian and bisexual youth are also at more risk for suicide attempts, but not completions (Shaffer, Pfeffer, & the Working Group on Quality Issues, American Academy of Child and Adolescent Psychiatry, 2001).

A report titled, *Priority Themes For Injury Prevention in Ontario* (Heale and Reynolds, 1992), states that the availability of a means for suicide is particularly important during adolescence, where the common belief is that suicide is often an impulsive action. Access to firearms has been identified as a risk factor in

young people in U.S. (Price, Everett, & Bendel, & Telljohann, 1997; Miller, Azrael & Hemenway, 2002; Shah, Hoffman, Wake & Marine, 2000) and international studies (Johnson, Kruge, & Potter, 2000) and especially in rural areas where access to firearms may be greater (Dresang, 2001).

An association between legal drinking age and suicide among youth has also been identified (Cohen & Potter, 1999; Berckmayer & Hemenway, 1999). Berckmayer & Hemenway (1999) propose that lowering the legal drinking age from 21 to 18 years in all U.S. states would increase suicides in 18-20 year olds by 125 per year. Alcohol use and abuse has also been associated with an increase in attempted and completed suicides in youth (Rowan, 2001; Powell et al, 2001).

Visits to a health professional, especially general practitioners, has been shown to increase in the weeks prior to a suicide attempt (Appleby et al, 1996; Andersen, Andersen, Rusholm & Gram, 2000). Access to Family Doctors specially trained in suicide prevention has been shown to decrease the number of suicides (Rihmer, Rutz & Pilgren, 1995; Rutz, Walinder and Eberhard et al, 1989; Rutz, von Knorring, & Walinder, 1989,1992; Rutz, Carllson, von Knorring, & Walinder, 1992).

Background

At the CWHPIN Planning Day Meeting, February 24, 2003, suicide in adolescents and young adults was identified as an area of concern to both Public Health Units and District Health Councils. A report was requested that addressed Ontario-wide suicidal behaviour for adolescents and young people. The report will be used to compare incidence and prevalence of suicide and attempts and selected risk factors across Ontario regions and to develop descriptive profiles that can be used for planning and programming. The Partners were also concerned that they understand the data quality issues in order to assess the quality and limitations of the data to be collected.

Local District Health Councils (DHC's) are concerned and involved in suicide prevention and mental health planning. Ontario Public Health Units (PHUs) are also reevaluating prevention strategies in these areas. A new draft (January, 2003) of the Guidelines for Mandatory Health Programs and Services Guidelines (Injury and Substance Abuse Prevention Section) contains a new objective not seen in the current Guidelines (1997)(personal communication Michelle Singleton, 2003). This new objective is: "To decrease the rates of suicide by 5 percent by the year 2010". Both DHCs and PHUs will need current accurate information upon which to base their mental health planning and programs.

An Advisory Committee made up of staff from CWHPIN partner agencies was formed and met for the first time on April 9th, 2003. The Advisory Committee for the CWHPIN Suicidal Behavior Profile For Adolescents And Young People In

Ontario (AC-SBAY) guides and oversees the report (SBAY) and the dissemination process. Purpose of the AC-SBAY is to:

- Act as the advisory body for all issues concerning the report,
- Determine the content of the report,
- Review drafts and provide editorial input into the report,
- Develop a dissemination strategy.

Method

The following diagram (Figure 5) will be used as the basis for discussing the data in the report. This framework portrays suicide as a progression from mental health risks to suicidal thoughts to attempts and sometimes death and gives us a clear framework for interpretation of the data. Unfortunately there is no available data on suicidal ideation at this time and limited local data on related risk factors for suicide and suicide attempts. Self- report data on visits to a health professional for mental health reasons, and episodes of depression in the last 12 months are available from the Canadian Community Health Survey 1.1 and have been included in the analysis.

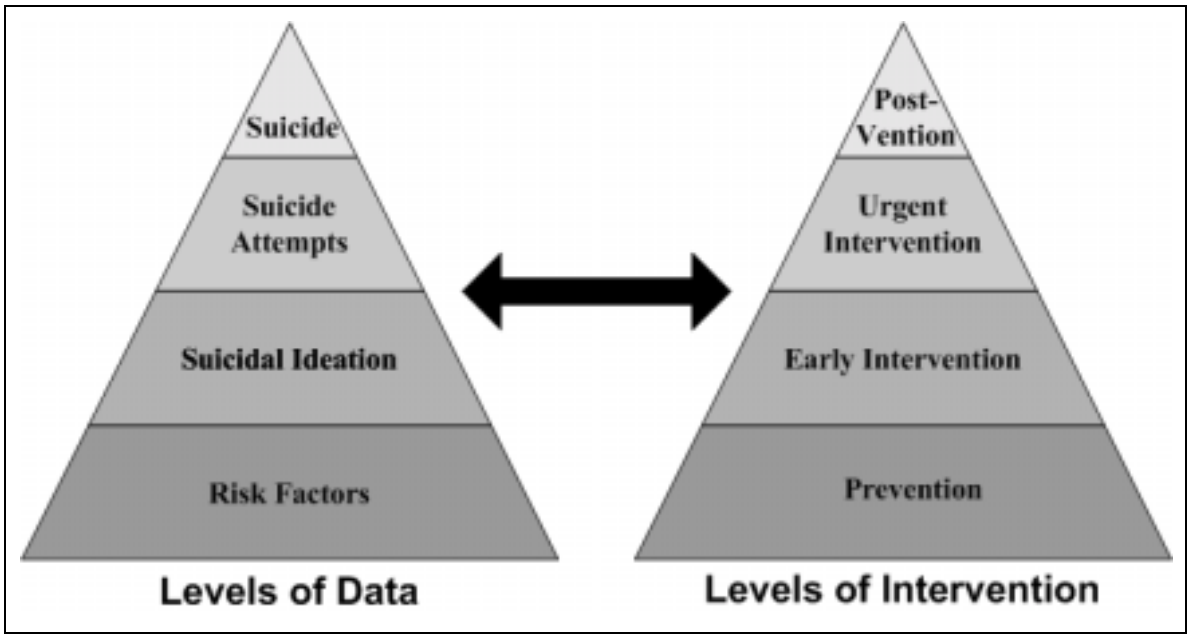

Figure 5: Framework for Data Collection by Intervention Level

Data Sources:

The data sources used in this report are shown in Table 1. Rates and counts, are calculated on number of events and not the number of individuals. Population estimates used as denominators were obtained from the Provincial Health-Planning Database. These numbers (1997, 1998, 1999, 2000) reflect post-censal estimates. Population estimates for 2001 are taken from Statistics Canada 2001 Census Data. Throughout the report in any table containing data obtained from the Provincial Health Planning Data Base (PHPDB) counts of less than 5 have been suppressed, as well as any total that allows someone to deduce a number less than 5, in accordance with Ministry of Health and Long-Term Care (MOHL-TC) guidelines for confidentiality (Personal correspondence with Lili Kranjac of the Health Planning Branch MOHL-TC, October, 2003).

Wherever possible throughout the report, rates and counts are presented by Public Health Unit area or HIU Regions and for Ontario as a whole. In the development of this descriptive profile of teen and youth suicide behaviours, tests of significance have not been conducted. This is consistent with the immediate needs of the Advisory Group.

Table 1: Variables and Data Sources	
Category/ Source	**Data Variable**
Death by Suicide Source: The Canadian Vital Statistics Database obtained from the HELPS Share files. Deaths for Calendar years 1997, 1998, 1999. All data reported by gender. E-codes 950 – 959.	Counts/year
	Age Specific Rates/100,000
	Methods Used
Suicide Attempts Source: Hospital Separations 1997 to 2001 (Calendar Years) are from The Hospital Morbidity Database, maintained by the Canadian Institute for Health Information and were obtained form The Provincial Health Planning Data Base. All data reported by gender. E-codes 950-959.	Counts/year
	Frequency Of Visits Per Patient
	Age Specific Rates/Year
	Method Used
	Types Of Poisons Used
	Types Of Admissions
	Entry And Exit Codes
	Re-Admission Codes (Cause)
	LOS – Acute, ALC, Total
	Attempts By Primary Diagnosis
Risks for Suicide Source: CCHS1.1 (2000) Statistics Canada Sharefile. All data reported by gender.	*Depression* *1) Derived depression scale – short form score* Variable name: DPSADSF Based on: DPSA_02, DPSA_03, DPSA_04, DPSA_05, DPSA_06, DPSA_08A, DPSA_08B, DPSA_10, DPSA_11, DPSA_12, DPSA_13, DPSA_16, DPSA_17, DPSA_18, DPSA_19, DPSA_21A, DPSA_21B, DPSA_23, DPSA_24, DPSA_25, DPSA_26 Description: The following variable assesses the respondent's depression state. The items used to measure depression are based on the work of Kessler and Mroczek. They selected a subset of items from the Composite International Diagnostic Interview (CIDI) that measure major depressive episode (MDE). The CIDI is a structured diagnostic instrument that was designed to produce diagnoses according to the definitions and the criteria of both DSM-lll-R and the Diagnostic Criteria for the Research of the ICD-10. The short-form of MDE used in the CCHS was developed to operationalize Criteria A through C of the DSM-III-R diagnosis of MDE. The diagnostic hierarchy rules defined in the Criterion D (not superimposed on schizophrenia, schizophrenia form disorder, delusional disorders, or psychotic disorders NOS) were ignored.
	Contacts with mental health professionals CM_Q01K- In the past 12 months, that is, from _ date one year ago to yesterday, have you seen, or talked on the telephone, to a health professional about your emotional or mental health? (1 Yes; 2 No (Go to CM_END) ;DK, R (Go to CM_END)
Population Estimates Source: PHPDB, 1997-2000 Calendar Yrs, post-censal estimates ; Canadian Census 2001 Sharefile – 2001 estimates. All data reported by gender.	Counts by PHU and HIU Area.

The Canadian Community Health Survey (CCHS 1.1, 2003) - Cycle 1.1

The Canadian Community Health Survey (CCHS) - Cycle 1.1 (2000), was conducted by Statistics Canada to provide regular and timely cross-sectional estimates of health determinants, health status, and health system utilization for health regions across Canada, plus the territories. A chart containing sample size and module participation by health region can be found on the Statistics Canada (2003) website. Reporting levels according to sample size are determined using the coefficient of variation tables provided by Statistics Canada. Estimates in the main body of the tables are to be rounded to the nearest hundred units using the normal rounding technique. Totals, subtotals, averages, proportions, rates and percentages are to be derived from their corresponding unrounded components and then rounded themselves to the nearest hundred units.

The CCHS began collection in September 2000 with the CCHS 1.1, (Statistics Canada, 2003) and staff will be in the field every month from that point forward. Each two-year collection cycle will be comprised of two distinct surveys: a health region-level survey in the first year with a total sample of 130,000 and a provincial-level survey in the second year with a total sample of 30,000. Sample sizes in any particular month or year may increase due to provincial or health region-level sample buy-ins. Both computer-assisted personal and telephone interviews are planned. The target population of the CCHS includes household residents in all provinces and territories; with the principal exclusion of

populations on Indian Reserves, Canadian Forces Bases, and some remote areas. There will be one randomly selected respondent per household, although planned over-sampling of youths resulted in a second member of certain households being interviewed. For the first collection cycle (CCHS 1.1) only those 12 years of age and over are eligible for selection, although it is expected that in future cycles, child-specific content will be included.

The CCHS - Mental Health and Well-being (Cycle 1.2) was conducted by Statistics Canada to provide provincial cross-sectional estimates of mental health determinants, mental health status and mental health system utilization. Results from this survey will be released at the end of this year.

Questions in the mental health area for the CCHS1.1 survey were largely optional with the exception of a question on contact with health professionals for mental health reasons (Note: often stated in this report as visits with a mental health professional). The optional question on depression was included in the survey by all Ontario PHU's except Brant. Included in this report is analysis of the responses to two CCHS 1.1 variables: 1*)* The Derived depression scale – short form score*,* variable name: DPSADSF*;* and 2) In the past 12 months, that is, from _date one year ago to yesterday, have you seen, or talked on the telephone, to a health professional about your emotional or mental health? The variable name is CM_Q01K.

Data Quality

Risk Factors

The data available on risk factors is from the CCHS1.1 (Statistics Canada, 2003). This large cross-sectional survey was conducted in 2000 by Statistics Canada, for public health unit areas in Ontario. Serious consideration was given to ensure a low-non-response rate. Despite this effort there is always a concern that self-report data especially in sensitive areas such as mental health may not be accurately answered.

Suicide Attempts

Hospitalization separations for suicide attempts do not provide a complete picture of the issue. This data however, is all that is available currently for this report. The data is limited by the fact that not all patients who attempt suicide are admitted to a hospital. As well, Canadian hospital data includes self-inflicted injuries considered intentional, but without suicide intent.

Hospitalization morbidity data includes only inpatient admissions; it does not include outpatient treatment received in emergency rooms or other medical facilities. Some individuals who have attempted suicide do not report. Suicides may also be misclassified through random errors and nonrandom bias. Mohler & Earls (2001) in the US suggest that in some locations there may also be bias because of various factors such as insurance benefits or religious or social

stigma of suicide. Moyer et al, (1989) found that at least 10% of suicides were misclassified in other injury categories.

Rhodes, Links, Streiner et al (2002) examined how consistently hospital separation E-code data reflect suicidal behaviours. Expert clinicians in a teaching hospital in a large Canadian city, reviewed medical records of individuals who had a separation for self-poisoning, to determine whether the self-poisoning was deliberate. Agreement among clinicians was evaluated and latent class analysis performed to derive a summary estimate of the prevalence of deliberate self-poisoning. This estimate was then compared to the prevalence of deliberate self-poisoning based on the external cause of injury (E-codes). Clinicians estimated the prevalence to be 63% higher than the E-code- based prevalence. Much larger discrepancies were apparent among older age groups, those whose care was primarily medical in nature and those with a longer length of hospital stay. They state that estimating the prevalence of admissions for suicidal behaviour using hospital separation data is of questionable validity among older age groups whereas the prevalence of deliberate self-poisoning among younger persons was about 50%, whether E-codes or a combination of clinical judgment and latent class analysis were employed. This estimate did not change appreciably when the most responsible diagnosis of self-poisoning N-code (regardless of the nature of the E-codes) was applied. These findings suggest that in younger age groups, the prevalence of hospitalizations for deliberate self-poisoning may be estimated with more consistency than in older age groups in specific settings.

Death by Suicide

In general caution is necessary when analyzing suicide rates at the district level because of small populations and low number of suicide deaths. Slight changes in the number of suicides may cause dramatic annual fluctuations in rates when no substantial changes have actually occurred (Niagara District Health Council, 2003). Take note as well that prior to age ten a death cannot be classified as a suicide.

The definition used by Ontario Coroners for the diagnosis for suicide is, " Death resulting from an intentional act of a person knowing the probable consequence of what he/she is about to do" (personal communication, Dr. D. Eden – Regional Supervising Coroner for Niagara [RSC-N]). Homicide can mask suicide, so each suicide is vigorously investigated. Mental impairment (from for example, drugs or alcohol) does not change the act or finding of suicide as long as the purpose is a lethal act; as well, according to the RSC-N, impulsivity does not exclude the finding of suicide even if the cause of the act is unknown or there is a no suicide note. The ICD-9 code definition does not reflect the component of intentionality however, only the self-inflicted nature of the injury.

Cause of death is classified by Ontario Coroners using the "NASH" classifications of ***N***atural Causes, ***A***ccidental Death, ***S***uicides, ***H***omicides or undetermined (O'Carroll et al, 1996). The RSC-N stated that Beckon v. Young in 1992, was a pivotal case for coroners and changed policy as well as the criteria for identifying

and classifying suicide. The definition of 'undetermined' has also been redefined since the early 1990's because of Justice Campbell's ruling from the report on the Bernardo case. The RSC-N estimates that about 1/3 of cases that would be classified as suicide on the basis of probabilities, do not meet the legal test in Beckon v Young and therefore would be classified as underdetermined (personal communication, 2003).

As an outcome of the policy changes stated above, suicide records for the early 1990's (1992 to 1994) are considered unstable. Data for the later 1990's can be considered stable and it is reasonable to combine the years 1997, 1998 and 1999, as has been done in this report.

Statistics Canada obtains most of its data from the office of the Registrar General of Ontario, which collects information on suspicious deaths from the Chief Coroner's Office. Studies have found that the data from Statistics Canada does not always correspond directly to the database on deaths from suicides from the Chief Coroner's Office (Goettler, 1999; Wagner, 2001). The RSC-N (2003) states that he personally, as the liaison person representing Ontario Coroner's, has been working with the Registrar General to ensure that information is transmitted in an accurate, complete and timely fashion. Over the same period all of the Provinces and Territories have also been working to ensure faster and more consistent death data collection. He expects that by the year 2000 there will be "closer, if not perfect synchrony" between the two databases however

there may be still be small discrepancies in the data during the late1990's (personal communication, 2003).

A literature review, discussions, and email communication with experts including the RSC-N, and Fred Goettler, Chair of the Suicide Prevention Committee in Toronto, suggest that suicide deaths may sometimes be under-reported due to the reluctance to officially code the event based on uncertain/unknown motivation or to amend death certificates once a final determination of suicide is made. The RSC-N (2003) indicated that Ontario uses a narrow definition to identify suicide as a cause of death. This may lead to under-reporting of suicide deaths. Suicide as a cause of death may also be underreported owing to the sex of the deceased, i.e. statistically women are more likely to choose less violent and more ambiguous mechanisms of injury, which are less likely to meet the legal test in Beckon v. Young, and therefore will be classified as undetermined. Death due to firearms, more frequent in men, are less likely to be attributed to accidental causes (Canetto & Sakinofsky, 1998). The literature does indicate, however that the data for adolescents and young people is more accurate that that for older people (Rhodes et al, 2002).

Although it is generally accepted that Canadian suicide rates might be affected by under-reporting, McNamee and Offord (1994) in a chapter on the prevention of suicide, in the Canadian Task Force on the Periodic Health Examination, state that this has been questioned. One study (Speechly & Stavraky, 1991) they quote, found that under-reporting suicide in Canada did not substantially alter

findings, suggesting that most conclusions based on official rates are essentially correct. In the RSC-N's estimation, Canadian Vital Statistics identifies about two thirds of Ontario suicide deaths as compared to those investigated and identified by police (personal communication, 2003).

Coding practices also vary from province to province. For example, Quebec's definition of suicide is essentially the same as that of Ontario; what differs is the standard of proof required to make the finding, which in Quebec is essentially the 'balance of probabilities', compared to Ontario's 'high degree of probability'. The substantial degree to which Quebec's suicide rate exceeds Ontario's is, in the RSC-N's opinion, mostly or entirely explained by the differing standard of proof required for the finding (RSC-N, personal communication, 2003; Niagara District Health Council, 2003).

Results

Risk Behaviours

Depression

Please note that because of small cell sizes it was necessary to calculate the following tables (Tables 2 – 6) based upon the percentage and counts for those who did ***not*** experience an episode of depression in the 12 months prior to the CCHS1.1 survey. The non-response counts were included in the calculations although they tend to be low. These tables (2-6) only include the age groups 15-19 and 20-24 years old and as a result cannot always be directly compared to the tables showing suicide attempts and deaths, which include the 10-14 year

age group as well. The findings are reported by Public Health Unit Areas within an HIU region. Brant PHU area in the CWHPIN HIU Region did not participate. Rounding and reportable numbers are presented in compliance with the guidelines for the CCHS Sharefile (CCHS Sharefile – Ontario Sample Guidelines for Analysis and Release of Data, 2000/01). Cells having an unweighted total of less than 30 or where a count of less than thirty in another cell could be calculated (residual disclosure) are not reportable.

In the NHIP Region, North Bay appear to have more self-reported depression in 15-19 Year olds although this trend wasn't seen in the 20-24 Year olds (Table 2). Porcupine, Timiskaming and Algoma PHU areas appear to have less self reported depression.

In the CWHPIN Region (Table 3), 15-19 Year olds in Haldimand Norfolk (HN) seem to self-report less depression than the teens in the other PHU areas. Teens and youth in Halton report somewhat more depression (15-19 and 20-24 Years) than the other PHU areas in the CWHPIN Region.

In the SRHIP Region (Table 4), teens and youth (15-24 years) in Chatham-Kent and Lambton PHU's have the lowest percentage of students (15-24 years) reporting depression across Ontario. There appears to be slightly more self reported depression in all age categories in Huron.

Overall there appears to be very slightly higher percentages of self- reported depression in 15-24 years olds in the HIP HIU Region (Table 5) than in the other

HIU Regions. (HIP 83.9 vs. NHIP-85. 2%, CWHPIN – 86%, SRHIP – 87.3%, CEHIP – 88% who report ***no*** depressive episodes in the previous 12 months). This seems to be primarily due to higher self-reports of depression within the samples from Ottawa Carlton PHU and Hastings/Prince Edward PHU.

In the CEHIP Region (Table 6), an astounding 97.5% of 15-19 year olds in Peterborough PHU area report no depressive episodes in the previous 12 months. Durham (91.4%) and the City of Toronto (91.4%) also had somewhat higher percentages than other PHU areas within the CEHIP Region.

Table 2: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By NHIP HIU Area and Age Group. Source: CCHS1.1 Share File (2000)

Age Group	15 – 19 Years		20 - 24 Years		15 – 24 Years	
NHIP PHU Area	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits
	Percent	Percent	Percent	Percent	Percent	Percent
Algoma	90.9	95.3	82.7	100.0	86.8	97.7
North Bay	77.2	82.7	85.0	93.5	81.1	88.1
Northwestern	82.4	-----	82.1	-----	82.3	93.0
Porcupine	-----	93.6	-----	98.6	92.8	96.1
Sudbury	84.8	88.2	81.5	86.0	83.2	87.1
Thunder Bay	83.4	96.2	86.6	93.8	85.0	95.0
Timiskaming	-----	-----	-----	-----	90.2	90.5
Total	85.6	90.5	84.8	94.4	85.2	92.5

Note: Cells with unweighted values of less than 30 and cells where there would be residual disclosure have been suppressed and are shown as -----. * Includes visits to a health professional for *any* mental health reason (not just depression) and will be influenced by the availability of services.

Table 3: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By CWHPIN HIU Area and Age group. Source: CCHS1.1 Share File (2000)

Age Group	15 – 19 Years		20 - 24 Years		15 – 24 Years	
CWHPIN PHU Area	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits
	Percent	Percent	Percent	Percent	Percent	Percent
Brant	[a]	96.0	[a]	95.0	[a]	95.5
Haldimand-Norfolk	-----	94.7	-----	92.5	90.7	93.6
Halton	84.8	94.4	79.6	86.9	82.2	90.6
Hamilton	90.2	91.1	84.2	93.2	87.2	92.2
Niagara	88.4	95.1	84.9	92.1	86.7	93.6
Waterloo	89.4	95.1	84.7	92.1	87.2	93.6
Wellington-Dufferin-Guelph	-----	95.6	-----	84.0	84.1	89.8
Total	88.4	94.6	83.6	90.8	86.0	92.7

Note: Cells with unweighted values of less than 30 and cells where there would be residual disclosure have been suppressed and are shown as -----. * Includes visits to a health professional for *any* mental health reason (not just depression) and will be influenced by the availability of services.

Table 4: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By SRHIP HIU Area and Age group. Source: CCHS1.1 Share File (2000)

Age Group	15 – 19 Years		20 - 24 Years		15 – 24 Years	
	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits
SRHIP PHU Area	Percent	Percent	Percent	Percent	Percent	Percent
Elgin-St Thomas	-----	-----	-----	-----	83.2	94.7
Bruce-Grey-Owen Sound	-----	-----	-----	-----	84.8	90.9
Huron PHU	-----	96.3	-----	94.6	81.2	95.5
Kent-Chatham	94.1	95.1	94.9	94.8	94.5	95.0
Lambton	95.9	92.4	93.8	97.2	94.9	94.8
Middlesex-London	84.2	96.5	84.3	89.2	84.3	92.9
Oxford	87.3	83.4	92.8	89.4	90.1	86.4
Perth	91	95.6	85	91.4	88	93.5
Windsor-Essex	92.2	98.5	83.3	91.3	87.8	94.9
Total	88.3	93.7	86.2	92.7	87.3	93.2

Note: Cells with unweighted values of less than 30 and cells where there would be residual disclosure have been suppressed and are shown as -----. * Includes visits to a health professional for *any* mental health reason (not just depression) and will be influenced by the availability of services.

Table 5: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By HIP HIU Area and Age group. Source: CCHS1.1 Share File (2000)

Age Group	15 – 19 Years		20 - 24 Years		15 – 24 Years	
	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits
HIP PHU Area	Percent	Percent	Percent	Percent	Percent	Percent
Hastings-Prince Edward	89.4	97.2	73.8	71.8	81.6	84.5
Kingston- Frontenac - Lennox &	90.1	94.3	85.5	95.4	87.8	94.9
Leeds-Grenville–Lanark	-----	93.1	-----	91.8	86.5	92.5
Ottawa Carlton	81.1	90.3	81.9	89.0	81.5	89.7
Renfrew	-----	98.3	-----	87.4	85.3	92.9
Eastern Ontario	-----	90.9	-----	87.1	88.5	89.0
Total	84.9	94.0	82.8	87.1	83.9	90.6

Note: Cells with unweighted values of less than 30 and cells where there would be residual disclosure have been suppressed and are shown as -----. * Includes visits to a health professional for *any* mental health reason (not just depression) and will be influenced by the availability of services.

Table 6: Percentage Of Those Who Had No Significant Depression And Have Not Visited A Mental Health Professional* In The Previous 12 Months By CEHIP HIU Area and Age group. Source: CCHS1.1 Share File (2000)						
Age Group	**15 – 19 Years**		**20 - 24 Years**		**15 – 24 Years**	
CEHIP PHU Area	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits	No Depression	No Mental Health Visits
	Percent	Percent	Percent	Percent	Percent	Percent
Durham PHU	91.4	96.4	88	91.2	89.7	93.8
Haliburton-Kawartha -Pine Ridge PHU	-----	-----	-----	-----	83.1	90.2
Muskoka- Parry Sound PHU	-----	-----	-----	------	83.4	95.4
Peel PHU	86.1	98.0	86.1	94.3	86.1	96.2
Peterborough PHU	97.5	95.0	88.1	99.0	92.8	97.0
Simcoe PHU	87.1	94.6	86.6	89.5	86.9	92.1
York PHU	82.4	92.1	85.4	92.8	83.7	92.5
City of Toronto PHU	91.4	96.3	89.2	93.0	90.3	94.7
Total	88.4	95.0	87.6	92.9	88.0	94.0

Note: Cells with unweighted values of less than 30 and cells where there would be residual disclosure have been suppressed and are shown as -----. * Includes visits to a health professional for *any* mental health reason (not just depression) and will be influenced by the availability of services.

Contact With A Mental Health Professional

Please note that because of the size of the cells this data will be reported based on Tables (Tables 2-6) showing those who *had not* consulted with a health professional for mental health reasons over the previous 12 months. The findings for this question will be strongly influenced by local access to mental health professionals and services. Sample sizes are small so results should be viewed with caution.

In the NHIP Region (Table 2) approximately 85% of those 15-24 years old self reported that they had not had a depressive episode although approximately 93% reported that they had not consulted a mental health professional (Table 2). Although approximately 15% may have suffered depression over the previous 12 months, only a maximum of 7% may have seen a mental health professional. This trend is consistent across all HIU Regions - CWHPIN 14% vs. 7% (Table 3);

SRHIP 13%vs. 7% (Table 4); HIP 16% vs. 9% (Table 5); CEHIP 12% vs. 6% (Table 6).

Within the NHIP Region (Table 2), more 15-19 year olds in North Bay appear to have consulted a mental health professional than in other PHU areas. Fewer 15-19 years old in Thunderbay and Algoma and fewer 20-24 year olds in Algoma (100%) and Porcupine (98.6%) have consulted a mental health professional than in the other PHU areas in NHIP.

In PHU areas within the CWHPIN region (Table 3), between 90- 96 % of 15-24 year olds had not consulted a mental health professional in the previous year. Slightly fewer 20-24 year olds in Wellington-Dufferin (84.0%) stated that they had not consulted a professional for their mental health.

In the SRHIP region (Table 4), between 86 and 96% of 15 to 24 year olds had not seen a mental health professional in the past year. In Oxford only 83% of 15-19 year olds state that they hadn't seen a health professional while the average Ontario percentage in that age grouping was 93.66%.

Within the HIP region (Table 5), Hastings – Prince Edward PHU area stood out because only 71.8% of those 20-24 year olds reported not having seen a mental health professional. This was considerably less than responses in any other

PHU area in all of Ontario. Overall 91% of 15-24 year olds in the SRHIP area had not seen a mental health professional during the designated time period.

Within the CEHIP region (Table 6), 94% of 15-24 year olds had not consulted a mental health professional and responses were fairly consistent across both age groups and all PHUs. In Muskoka (15-19 only), Peel (15-19 only) and Peterborough (20-24 only) less than 2% of the age grouping identified that they had seen a mental health professional.

Suicidal Ideation

Suicidal thinking is a key indicator of mental distress and an important antecedent to suicide attempts (CAMH, 2003). CAMH has conducted the Ontario Student Drug Use Survey (OSDUS) regularly over two decades and have recently reported on findings re suicidal ideation in Ontario teens. In the spring of 2001, 4211 students from grades 7 through OAC, in 106 schools and 272 classes participated in the most recent survey. CAMH (Adlaf & Paglia, 2001) produced a companion document to the OSDUS report describing the physical and mental health indicators for 2001 and changes since 1991. All data is self-reported data derived from anonymous questionnaires administered in classroom.

In 2001, 11.1% of the students, (females 13.3%; males 8.9%) in their study (Adlaf & Paglia, 2001) reported that they had seriously considered suicide in the

past year. There was no association to grade or region in the province. Students who report a good relationship with parents (9.6% vs. 38.6 %), students who live in a family with two parents (10.1% vs. 16.3%), and students whose parents monitor their whereabouts (9.1% vs. 20.2%) are less likely to have thoughts of suicide. Other factors influencing suicidal ideation (in the expected direction) were a feeling of attachment to one's school and feeling safe at school. Those who had been bullied or were likely to bully others were also more likely to have suicidal thoughts.

Admissions and Length of Stay (LOS)

The numbers of hospital discharges (separations) for suicide attempts per patient (ages10-24 years), for the years 1997 to 2001, are shown in Table 7. Most (9130)

had only one visit however 1235 individuals had 2 or three and 148 had 4 or more admissions for suicide attempts during the 5 year period. Percents for all age groups are fairly similar. Note that codes used by a hospital to designate admissions for patients who have no address, all patients from out of province or those whose PHU of residence was classified as 'unknown" are omitted from this analysis.

Table 7: Frequency Of Discharges (Seps) from Hospital For Suicide Attempts Per Patient By Age Group For 10 to 24 Year Olds From 1997 To 2001 (Combined) In Ontario. Hospital Homeless Codes, Patients Who Were From Out Of Province Or Those Whose Place Of Residence Is Unknown Have Been Excluded From This Sample. Source: PHPDB, 2003

10-14 Years			15-19 Years			20-24 Years			10-24years		
Number of Individual Hospital Seps over a five year period	**Frequency of Patients Visits**	**Percent of Sample**	**Number of Individual Hospital Seps over a five year period**	**Frequency of Patients Visits**	**Percent of Sample**	**Number of Individual Hospital Seps over a five year period**	**Frequency of Patients Visits**	**Percent of Sample**	**Number of Individual Hospital Seps over a five year period**	**Frequency of Patients Visits**	**Percent of Sample**
1	1211	90.2	1	4615	86.6	1	3304	86.0	1	9130	86.8
2	110	8.2	2	535	10.0	2	364	9.5	2	1009	9.6
3	15	1.1	3	114	2.1	3	97	2.5	3	226	2.1
4	7	1.4	4	28	.5	4	44	1.1	4	79	.8
			5	16	.3	5	14	.4	5	30	.3
			6+	19	.4	6+	20	.6	6+	39	.4
Total	1343	100%	Total	5327	100%		3843	100%	Total	10513	100%

Cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5 have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----. Note that 44 of these hospitalizations resulted in death.

Teens and young people (10-24 Years) across Ontario were most often admitted for suicide attempts through the hospital emergency department (Table 8). The admission category for approximately 47% of those admission was a life threatening emergency, 51% were considered urgent but not life threatening and 2% were planned admissions (Table 9).

Table 8: Entry Codes for Hospital Admissions for Suicide Attempts for 10-24 Year Olds in Ontario During the Calendar Years 1997-2001 Source: PHPDB 1997-2001	
Entry Code	**Frequency / Counts**
Direct Through Admitting Department	1134
Emergency Department	13795
Via Clinics Department In Reporting Hospital	-----
Via Day Procedure/Surgery Department	-----
Total	14940

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 9: Admission categories for Hospital Admissions for Suicide Attempts for 10-24 Year Olds in Ontario During the Calendar Years 1997-2001. Source: PHPDB 1997-2001	
Admission Category	**Frequency/ Counts**
Elective/Planned Admission	267
Emergency/Life Threatening Condition	6993
Urgent/Not Life Threatening	7680
Total	14940

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

The mean total length of stay for a suicide attempt over the five-year period between 1997-2001 was 5.63 days (Table 10). The mean LOS for Acute care was 5.45 days while the LOS for Alternative Level of Care (ALC) was very small and only amounted to 58 days in total (Table 11).

Table 10: Mean, Median and Standard Deviation for LOS for Suicide attempts 1997-1999 for 10-24 Years. N= 14940 Source: PHPDB 1997-2001			
	Alternative	**Acute Care LOS**	**Total LOS**
Mean	6.71E-02	5.45	5.63
Median	.00	2.00	2.00
Std. Deviation	1.78	13.58	14.03

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 11: Length of Stay (LOS) for Ontario Hospitalizations For Suicide Attempts For 10-24 Year Olds For The Years 1997 – 2001 Combined For Acute Care, Altered Level Of Care, And Total Length Of Stay. Source: PHPDB 1997-2001			
Length Of Stay In Days	**Acute Care LOS**	**Altered Level Of Care LOS**	**Total LOS**
No Days	54	14877	0
1 - 28	14465	53	14479
29 – 56	290	5	318
57 – 84	-----	-----	85
85 – 112	-----	-----	26
113 – 140	8	0	10
141 – 168	8	0	9
169 – 336	7	0	9
337 or more (50 weeks)	-----	0	-----
Total	14940	14940	14940

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Discharge Status

Not surprisingly most 10-24 year olds admitted for a suicide attempt (95% - 14184) were discharged but almost 5% (704) signed themselves out against physician's orders and .3% (52) died (Table 12).

Table 12: Exit Status for Hospital Admissions for Suicide Attempts for 10-24 Year Olds in Ontario During the Calendar Years 1997-2001. Source: PHPDB 1997-2001	
Exit Status	***Frequency/ Counts***
Discharged	14184
Signed Themselves Out	704
Deceased	52
Total	14940

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Age Specific Rates

The age specific rates for hospital separations for suicide attempts are much higher in the NHIP region for both males and females and in all three age ranges (10-14, 15-19, 20-24 Years)(Table 13). Rates in HIP and CEHIP Regions are

generally lower than the other HIU Regions (Table 13). Within NHIP, for the five year span from 1997 to 2001 combined, 10-24 Year olds show higher age specific rates for both males and females in Northwestern PHU and the Thunderbay PHU areas . Lowest rates in NHIP were seen in Timiskaming PHU (Table 14).

In the CWHPIN Region (Table 15) rates in 10-24 year olds were higher in Niagara and Halton and lowest in Haldimand-Norfolk. In HIP Region (Table 16) in 10-24 Year olds rates were much higher in Renfrew, especially in males, and were generally lower in KFL&A and Eastern Ontario PHUs. In SRHIP (Table 17) rates (10-24 Year olds) were higher for both males and females in Oxford and Windsor-Essex PHUs and lowest overall in Elgin-St. Thomas. In the CEHIP Region (Table 18) hospital separations for suicide attempts are markedly higher in 10-24 Year olds, especially in males, in Simcoe PHU and lowest for both sexes in York and Durham.

Hospital Separations for Suicide Attempts By Method 1997 to 2001

Across Ontario, (1997-2001 combined) in 10-24 year olds, separations for suicide attempts (Table 19) are highest for poisonings by solid or liquid substances in both males (78%) and females (88.1%). The next most frequent method is injury by cutting and piercing instruments (males 11.8%; females 8.5%). Males are more frequently admitted than females for attempts by hanging, strangulation or suffocation (males 4.1%; females 1.4%).

The most common category of poisons (Table 20) cited as a cause is “analgesics, antipyretics and antirheumatics” (males 32.9%; females 47.0%). Tranquillizers and other psychotropics are used by 31% of males and 24% of females admitted for suicide attempts in Ontario from 1997 to 2001. Poisoning by “other specified drugs and medicaments” account for 22% of separations for suicide attempts due to poisonings in males and 21% for females in the same age range.

Table 13: Hospitalization Separations (Counts) and Age Specific Rates/100000 For Suicide Attempts by Age Groups and Health Intelligence Unit Area for the Combined Years 1997-2001.

Age/ HIU/Year	10-14Years		Pop. Est. 10-14Years		Age Specific Rate 10-14Years		15-19 Yrs.		Pop. Est.15-19 Yrs		Age Specific Rate 15-19 Yrs.		20-24 Years		Pop.Est. 20-24 Yrs.		Age Specific Rate 20-24 Yrs.		10-24 Yrs.			Pop Est. 10-24 Yrs.			Age Specific Rate 10-24Yrs		
	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Both	Male	Fem	Both	Male	Fem	Both
NHIP																											
1997	8	60	30118	28782	26.56	208.46	77	195	31114	29492	247.48	661.20	75	95	28893	27422	259.58	346.44	160	350	510	90125	85696	175821	177.53	408.42	290.07
1998	10	46	29025	27689	34.45	166.13	78	163	30396	28917	256.61	563.68	52	87	27966	26448	185.94	328.95	140	296	436	87387	83054	170441	160.21	356.75	255.81
1999	20	53	28621	27225	69.87	194.67	62	128	30073	28689	206.16	446.16	65	78	27616	25853	235.37	301.71	147	259	406	86310	81767	168077	170.32	316.75	241.56
2000	18	66	28347	27069	63.49	243.82	80	192	29608	28216	270.20	680.46	76	122	28339	26698	268.18	456.96	174	380	554	86294	81983	168277	201.64	463.51	329.22
2001	16	66	27265	25845	58.68	255.36	85	185	27710	26385	306.75	701.16	68	131	21740	21790	312.79	601.19	169	382	551	76715	74020	150735	220.30	516.08	365.54
Total	72	291	143376	136610	50.21	213.01	382	863	148901	141699	256.55	609.04	336	513	134554	128211	249.714	400.12	790	1667	2457	426831	406520	833351	185.08	410.07	294.83
CWHPIN																											
1997	12	64	76547	72197	15.68	88.65	112	252	72673	68317	154.12	368.87	114	151	72184	69690	157.93	216.67	238	467	705	221404	210204	431608	107.50	222.17	163.34
1998	7	55	77572	72841	9.024	75.51	75	199	73915	69439	101.47	286.58	107	130	72222	69541	148.15	186.94	189	384	573	223709	211821	435530	84.48	181.29	131.56
1999	15	61	78522	73898	19.10	82.55	82	185	75447	70672	108.69	261.77	103	131	72834	69726	141.42	187.88	200	377	577	226803	214296	441099	88.18	175.92	130.81
2000	6	54	79868	75398	7.512	71.62	76	195	77292	72320	98.33	269.63	105	121	73866	70611	142.15	171.36	187	370	557	231026	218329	449355	80.94	169.47	123.96
2001	11	78	79325	75595	13.87	103.18	80	216	76905	72360	104.02	298.51	99	118	68450	67150	144.63	175.73	190	412	602	224680	215105	439785	84.56	191.53	136.89
Total	51	312	391834	391834	13.02	79.63	425	1047	376232	353108	112.96	296.51	528	651	359556	346718	146.85	187.76	1004	2010	3014	1127622	1069755	2197377	89.04	187.89	137.16
SRHIP																											
1997	8	49	54708	52011	14.62	94.21	62	157	53187	50574	116.57	310.44	76	101	51367	49483	147.95	204.11	146	307	453	159262	152068	311330	91.67	201.88	145.50
1998	15	31	54387	51929	27.58	59.70	73	143	54061	51349	135.03	278.49	71	90	51337	49281	138.30	182.63	159	264	423	159785	152559	312344	99.51	173.05	135.43
1999	14	34	54505	51672	25.69	65.80	60	131	54465	51939	110.16	252.22	78	79	52111	49762	149.68	158.76	152	244	396	161081	153373	314454	94.36	159.09	125.93
2000	7	36	54681	51917	12.80	69.34	57	168	55221	52584	103.22	319.49	64	86	53100	50701	120.53	169.62	128	290	418	163002	155202	318204	78.53	186.85	131.36
2001	9	40	54225	51645	16.60	77.45	42	168	53925	51880	77.89	323.82	80	103	47545	47045	168.26	218.94	131	311	442	155695	150570	306265	84.14	206.55	144.32
Total	53	190	272506	259174	19.45	73.31	294	767	270859	258326	108.54	296.91	369	459	255460	246272	144.45	186.38	716	1416	2132	798825	763772	1562597	89.63	185.40	136.44
HIP																											
1997	-----	-----	-----	-----	-----	-----	39	140	50108	47410	77.83	295.30	53	94	51815	49385	102.29	190.34	95	278	373	154801	146759	301560	61.37	189.43	123.69
1998	5	34	52564	49880	9.51	68.16	39	129	50580	47626	77.11	270.86	53	74	51021	49066	103.88	150.82	97	237	334	154165	146572	300737	62.92	161.70	111.06
1999	-----	-----	------	-----	-----	-----	52	141	54465	51939	95.47	271.47	56	72	50967	49180	109.88	146.40	111	234	345	155671	148104	303775	71.30	158.00	113.57
2000	6	27	53862	51431	11.14	52.50	64	126	52496	49242	121.91	255.88	39	54	50979	49317	76.50	109.50	109	207	316	157337	149990	307327	69.28	138.01	102.82
2001	-----	-----	-----	-----	-----	-----	33	148	52210	49745	63.21	297.52	39	84	48350	47665	80.66	176.23	77	265	342	155210	149000	304210	49.61	177.85	112.42
Total	22	159	267071	253424	8.24	62.74	227	684	259859	245962	87.36	278.09	240	378	253132	244613	94.81	154.53	489	1221	1710	777184	740425	1517609	62.92	164.91	112.68
CEHIP																											
1997	28	116	173138	163403	16.17	70.99	150	459	167777	158903	89.4	288.86	203	307	174293	171862	116.47	178.63	381	882	1263	515208	494168	1009376	73.95	178.48	125.13
1998	25	94	177074	167147	14.12	56.24	168	432	172295	163410	97.51	264.37	150	253	177339	173228	84.58	146.05	343	779	1123	526708	503785	1030493	65.12	154.63	108.98
1999	19	86	180794	170452	10.51	50.45	125	365	175576	167032	71.19	218.52	183	278	180464	175507	101.41	158.40	327	729	1056	536834	512991	1049825	60.91	142.11	100.59
2000	17	104	185999	174774	9.14	59.51	150	440	180056	170461	83.31	258.12	154	263	181171	175882	85.00	149.53	321	807	1128	547226	521117	1068343	58.66	154.86	105.58
2001	15	89	188605	178425	7.953	49.88	121	410	183485	173390	65.95	236.46	169	253	173125	174575	97.62	144.92	305	752	1057	545215	526390	1071605	55.94	142.86	98.64
Total	104	489	905610	854201	11.48	57.25	714	2106	879189	833196	81.21	252.76	859	1354	886392	871054	96.91	155.44	1677	3949	5627	2671191	2558451	5229642	62.78	154.35	107.60
ONTARIO																											
1997	59	333	387389	366357	15.23	90.89	440	1203	374859	354696	117.38	339.16	521	748	378552	367842	137.63	203.35	1020	2284	3304	1140800	1088895	2229695	89.41	209.75	148.18
1998	62	260	390622	369486	15.87	70.37	433	1066	381247	360741	113.57	295.50	433	634	379885	367564	113.98	172.49	928	1960	2889	1151754	1097791	2249545	80.57	178.54	128.43
1999	71	255	395559	373806	17.95	68.22	381	950	387148	366697	98.41	259.07	485	638	383992	370028	126.30	172.42	937	1843	2780	1166699	1110531	2277230	80.31	165.96	122.08
2000	54	287	402757	380589	13.41	75.41	427	1121	394673	372823	108.19	300.68	438	646	387455	373209	113.05	173.09	919	2054	2973	1184885	1126621	2311506	77.56	182.32	128.62
2001	56	306	404965	383880	13.83	79.71	361	1127	394915	374500	91.41	300.93	455	689	359650	358770	126.51	192.05	872	2122	2994	1159530	1117150	2277230	75.20	189.95	131.48
Total	302	1441	1981292	1874118	15.24	76.89	2042	5467	1932842	1829457	105.65	298.83	2332	3355	1889534	1837413	123.42	182.59	4676	10263	14940	5803668	5540988	11345206	80.57	185.22	131.69

Sources: *Deaths were taken from HELPS, Registrar General Vital Statistics Database: ** Population estimates (1997-2000) used as denominators were obtained from the Provincial Health-Planning Database. These numbers (1997, 1998, 1999, 2000) reflect post censal estimates. Population estimates for 2001 are taken from Statistics Canada 2001 Census Data Sharefile. Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 14: Hospital Separations for Suicide Attempts And Age Specific Rates (Per 100,000) By Public Health Units In The NHIP HIU Area For Teens And Young Adults (10-24 Years) For The Years 1997 To 2001. Source: PHPDB, 2003.						
PHU/Year	**Attempts**	**Attempts**	**Total Pop.**	**Total Pop.**	**Age Specific**	**Age Specific**
NHIP	*Male*	**Female**	**Male**	**Female**	**Male**	**Female**
Algoma						
1997	29	34	13709	13101	211.54	259.52
1998	17	46	13572	13039	125.26	352.79
1999	19	27	13325	12737	142.59	211.98
2000	27	50	13345	12862	202.32	388.74
2001	17	39	11690	11235	145.42	347.13
Total	109	196	65641	62974	166.05	311.24
North Bay						
1997	9	24	10355	9929	86.91	241.72
1998	18	28	9181	8812	196.06	317.745
1999	21	13	9217	8819	227.84	147.41
2000	9	28	9317	8857	96.60	316.13
2001	16	25	9645	9240	165.89	270.56
Total	73	118	47715	45657	152.99	258.45
Northwestern						
1997	46	102	9682	9255	475.11	1102.11
1998	29	65	10872	10235	266.74	635.08
1999	35	61	10992	10242	318.41	595.59
2000	40	126	11154	10404	358.62	1211.07
2001	33	96	8280	7845	398.55	1223.71
Total	183	450	50980	47981	358.96	937.87
Porcupine						
1997	16	47	11674	10907	137.06	430.92
1998	18	34	10818	10122	166.39	335.90
1999	14	29	10691	9902	130.95	292.87
2000	20	41	10636	9909	188.04	413.77
2001	16	35	9095	8725	175.92	401.15
Total	84	186	52914	49565	158.75	375.26
Sudbury						
1997	15	36	22548	21548	66.52	167.07
1998	19	31	21909	21024	86.72	147.45
1999	13	35	21281	20462	61.09	171.05
2000	28	46	21024	20341	133.18	226.14
2001	35	32	18715	18495	187.02	173.02
Total	110	180	105477	101870	104.29	176.70
Thunder Bay						
1997	42	100	17916	16942	234.43	590.25
1998	36	88	16964	15963	212.21	551.27
1999	42	92	16758	15793	250.63	582.54
2000	46	86	16713	15729	275.23	546.76
2001	49	143	15750	15165	311.11	942.96
Total	215	509	84101	79592	255.64	639.51
Timiskaming						
1997	-----	-----	-----	-----	-----	-----
1998	-----	-----	-----	-----	-----	-----
1999	-----	------	-----	-----	-----	-----
2000	-----	-----	-----	-----	-----	-----
2001	-----	-----	-----	-----	-----	-----
Total	16	28	20003	18881	79.99	148.30
Grand Total	790	1667	426831	406520	185.08	410.07

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 15: Hospitalization Separations for Suicide Attempts And Age Specific Rates (Per 100,000) By Public Health Unit In The CWHPIN Area For Teens And Young Adults (10-24 Years) For The Years 1997 To 2001. Source: PHPDB, 2003						
PHU/Year	**Attempts**	**Attempts**	**Total Pop.**	**Total Pop.**	**Age Specific**	**Age Specific**
CWHPIN	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Brant						
1997	10	16	13578	12840	73.65	124.61
1998	7	20	13660	12856	51.24	155.57
1999	15	12	13810	12957	108.61	92.61
2000	6	18	13987	13177	42.90	136.60
2001	7	44	12325	11855	56.80	371.15
Total	45	110	67360	63685	66.81	172.73
Haldimand-Norfolk						
1997	9	21	11699	10907	76.93	192.54
1998	-----	-----	-----	-----	-----	-----
1999	6	25	12335	11358	48.64	220.11
2000	-----	-----	-----	-----	-----	-----
2001	7	8	11215	10515	62.42	76.08
Total	31	72	60089	55731	51.59	129.19
Halton						
1997	41	106	35739	33774	114.72	313.85
1998	42	76	36057	34046	116.48	223.23
1999	40	69	36438	34624	109.78	199.28
2000	46	91	37439	35674	122.87	255.09
2001	37	87	37395	35730	98.94	243.49
Total	206	429	183068	173848	112.53	246.77
Hamilton						
1997	48	59	48271	46626	99.44	126.54
1998	28	86	48763	46829	57.42	183.65
1999	26	64	49513	47091	52.51	135.91
2000	35	80	50225	47431	69.69	168.67
2001	47	64	50400	48300	93.25	132.51
Total	184	353	247172	236277	74.44	149.40
Niagara						
1997	63	108	41617	39028	151.38	276.72
1998	52	83	41683	39118	124.751	212.18
1999	45	78	41957	39458	107.25	197.68
2000	42	74	42646	39982	98.49	185.08
2001	41	82	40065	38220	102.33	214.55
Total	243	425	207968	195806	116.85	217.05
Waterloo						
1997	49	110	46138	44071	106.20	249.60
1998	42	70	46547	44503	90.23	157.29
1999	48	77	47281	45136	101.52	170.60
2000	35	66	47849	45942	73.15	143.66
2001	31	85	47615	46130	65.11	184.26
Total	205	408	235430	225782	87.07	180.71
Well. -Duff. -Guelph						
1997	18	47	24362	22958	73.89	204.72
1998	14	36	24926	23255	56.17	154.81
1999	20	52	25469	23672	78.53	219.67
2000	18	36	26113	24386	68.93	147.63
2001	20	42	25665	24355	77.93	172.45
Total	90	213	126535	118626	71.13	179.56
Grand Total	1004	2010	1127622	1069755	89.04	187.89

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 16: Hospitalization Separations for Suicide Attempts And Age Specific Rates (per 100,000) By Public Health Unit In The HIP HIU Area For Teens And Young Adults (10-24 Years) For The Years 1997 To 2001. Source: PHPDB, 2003						
PHU/Year	Attempts	Attempts	Total Pop.	Total Pop.	Age Specific	Age Specific
HIP	Male	Female	Male	Female	Male	Female
Eastern Ontario						
1997	18	27	19773	18636	91.03	144.88
1998	14	25	19916	18861	70.30	132.55
1999	7	25	20224	19220	34.61	130.07
2000	13	23	20806	19769	62.48	116.34
2001	9	14	18805	18005	47.86	77.76
Total	61	114	99524	94491	61.29	120.65
Hastings-Prince Edward						
1997	-----	-----	-----	-----	-----	-----
1998	13	30	14998	14358	86.68	208.94
1999	18	23	15244	14487	118.08	158.76
2000	12	14	15697	14861	76.45	94.21
2001	-----	-----	-----	-----	-----	-----
Total	52	122	76535	72888	67.94	167.38
KFL&A						
1997	12	16	18826	17517	63.74	91.34
1998	-----	-----	-----	-----	------	-----
1999	10	30	18148	17341	55.10	173.00
2000	9	12	17934	17261	50.18	69.52
2001	-----	-----	-----	-----	-----	-----
Total	39	117	91792	86948	42.49	134.56
Leeds, Gren.-Lanark						
1997	8	31	15332	14569	52.18	212.78
1998	8	21	15416	14731	51.89	142.56
1999	14	22	15558	14979	89.99	146.87
2000	10	28	16028	15464	62.39	181.07
2001	13	32	15065	14500	86.29	220.69
Total	53	134	77399	74243	68.48	180.49
Ottawa						
1997	42	154	74913	71364	56.07	215.80
1998	35	122	75195	71753	46.55	170.03
1999	46	114	76385	72555	60.22	157.12
2000	48	118	76655	72923	62.62	161.81
2001	40	131	78615	75890	50.88	172.62
Total	211	639	381763	364485	55.27	175.32
Renfrew						
1997	10	25	10301	9681	97.08	258.24
1998	24	16	10181	9510	235.73	168.24
1999	16	20	10112	9522	158.23	210.04
2000	17	12	10217	9712	166.39	123.56
2001	6	22	9360	8945	64.10	245.95
Total	73	95	50171	47370	145.50	200.55
Grand Total	489	1221	777184	740425	62.92	164.91

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 17: Hospital Separations for Suicide Attempts and Age Specific Rates (per 100,000) By Public Health Unit in the SRHIP HIU Area For Teens And Young Adults (10 –24 Years) For The Years 1997 To 2001. Source: PHPDB, 2003:

HIU/PHU/Year	Attempts	Attempts	Total Pop.	Total Pop.	Age Specific	Age Specific
SRHIP	Males	Females	Males	Females	Males	Females
Chatham-Kent						
1997	12	28	12463	11708	96.29	239.15
1998	10	19	12506	11618	79.96	163.54
1999	10	17	12522	11587	79.86	146.72
2000	12	15	12643	11751	94.91	127.65
2001	7	15	11520	10990	60.76	136.49
Total	51	94	61654	57654	82.72	163.04
Elgin-St. Th.						
1997	6	14	8893	8334	67.47	167.99
1998	7	11	9024	8502	77.57	129.38
1999	6	8	9191	8624	65.28	92.76
2000	-----	-----	-----	-----	-----	-----
2001	-----	-----	-----	-----	-----	-----
Total	28	51	45159	42569	62.00	119.81
Grey-Bruce						
1997	8	37	16677	15527	47.97	238.29
1998	12	24	16781	15571	71.51	154.13
1999	10	13	16858	15764	59.32	82.47
2000	14	20	17288	16196	80.98	123.49
2001	9	30	15680	14680	57.40	204.36
Total	53	126	83284	77738	63.64	162.08
Huron						
1997	5	17	6779	6362	73.76	267.21
1998	------	-----	-----	-----	-----	-----
1999	5	13	6899	6524	72.47	199.26
2000	-----	-----	-----	-----	-----	-----
2001	7	10	6390	6115	109.55	163.53
Total	23	62	33923	32160	67.80	192.79
Lambton						
1997	19	21	14444	13690	131.54	153.40
1998	13	22	14390	13699	90.34	160.60
1999	7	19	14466	13695	48.39	138.74
2000	7	23	14625	13904	47.86	165.42
2001	9	18	13070	12685	68.86	141.90
Total	55	103	70995	67673	77.47	152.20
Midd.-London						
1997	33	83	42290	40957	78.03	202.65
1998	30	68	42180	40804	71.12	166.65
1999	43	61	42579	41060	100.99	148.56
2000	38	88	42775	41158	88.84	213.81
2001	39	124	42675	42565	91.39	291.32
Total	183	424	212499	206544	86.12	205.28
Oxford						
1997	13	17	10815	10229	120.20	166.19
1998	15	23	10920	10396	137.36	221.24
1999	16	14	10975	10438	145.79	134.13
2000	-----	-----	-----	-----	------	-----
2001	-----	-----	-----	-----	-----	-----
Total	57	121	54283	51613	105.01	234.44
Perth						
1997	-----	-----	-----	-----	-----	-----
1998	-----	-----	-----	-----	-----	-----
1999	5	19	8238	7899	60.69	240.54
2000	9	5	8338	8036	107.94	62.22
2001	-----	-----	-----	-----	------	------
Total	37	45	41020	39311	90.20	114.47
Windsor-Essex						
1997	45	87	38753	37481	116.12	232.12
1998	54	91	38980	37669	138.53	241.58
1999	50	80	39353	37782	127.06	211.74
2000	35	65	39662	37983	88.25	171.13
2001	45	67	39260	37595	114.62	178.22
Total	229	390	196008	188510	116.83	206.89
Grand Total	716	1416	798825	763772	89.63	185..40

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 18: Hospitalization Separations For Suicide Attempts And Age Specific Rates (Per 100,000) By Public Health Unit In The CEHIP HIU Area For Teens And Young Adults (10-24 Years) For The Years 1997 To 2001. Source: PHPDB, 2003						
HIU/ PHU/Year	Attempts	Attempts	Total Pop.	Total Pop.	Age Specific	Age Specific
CEHIP	Male	Female	Male	Female	Male	Female
Durham						
1997	36	82	50317	48011	71.55	170.79
1998	23	55	51490	49262	44.67	111.65
1999	26	46	52981	50766	49.07	90.61
2000	31	77	55216	52880	56.14	145.6
2001	24	79	54895	52920	43.72	149.28
Total	140	339	264899	253839	52.85	133.55
Hal.-Kaw.-PR						
1997	18	24	15910	14711	113.14	163.14
1998	13	21	17107	15687	75.99	133.87
1999	18	28	17559	16005	102.51	174.94
2000	12	35	18390	16703	65.25	209.54
2001	15	42	15535	14650	96.56	286.69
Total	76	150	84501	77756	89.94	192.91
Muskoka-PS						
1997	7	13	7452	7045	93.93	184.53
1998	-----	-----	-----	-----	-----	-----
1999	-----	-----	-----	-----	-----	-----
2000	9	12	9565	8802	94.09	136.33
2001	8	21	7465	6915	107.2	303.69
Total	35	82	42655	39636	82.05	206.88
Peel						
1997	71	155	98663	94675	71.96	163.72
1998	72	136	101674	97400	70.81	139.63
1999	76	144	104577	100079	72.67	143.89
2000	71	139	107767	102580	65.88	135.50
2001	60	118	107705	103525	55.71	113.98
Total	350	692	520386	498259	67.26	138.88
Peterborough						
1997	14	21	12865	12323	108.82	170.41
1998	-----	-----	-----	-----	-----	-----
1999	15	22	12918	12549	116.12	175.31
2000	-----	-----	-----	-----	-----	------
2001	11	19	12930	12505	85.07	151.94
Total	52	107	64731	62571	80.33	171.01
Simcoe						
1997	45	91	34778	32914	129.39	276.48
1998	38	88	35909	34062	105.8	258.35
1999	33	86	37433	35447	88.16	242.62
2000	41	101	39340	37209	104.22	271.44
2001	49	103	38320	36590	127.87	281.50
Total	206	469	185780	176222	110.88	266.14
York Region						
1997	47	107	71381	67108	65.84	159.44
1998	46	78	73616	69360	62.49	112.457
1999	34	70	75994	71932	44.74	97.31
2000	43	94	79855	75718	53.85	124.14
2001	28	100	81635	76925	34.29	129.99
Total	198	449	382481	361043	51.77	124.36
Toronto (Merged)						
1997	143	389	223842	217381	63.88	178.95
1998	136	356	225062	217159	60.43	163.94
1999	121	315	226173	217744	53.50	144.67
2000	110	331	223951	214481	49.12	154.33
2001	110	270	226730	222360	48.52	121.42
Total	620	1661	1125758	1089125	55.07	152.51
Grand Total	1677	3949	2671191	2558451	62.78	154.35

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 19: Hospitalizations for Suicide Attempts By Method By HIU Area and Sex For Those Aged 10 – 24 Years Old for 1997 To 2001 Combined. Source: PHPDB, 2003													
HIU/ Sex (Counts)	**NHIP**		**CWHPIN**		**SRHIP**		**HIP**		**CEHIP**		**Ontario Total Counts / Percents**		
ICD-9 E-Codes For Suicide	**Males**	**Female**	**Males**	**Female**	**Males**	**Female**	**Males**	**Female**	**Males**	**Female**	**Males # %**	**Females # %**	**Both # %**
950 Poisoning By Solid/ Liquid Substances	569	1412	790	1777	537	1235	389	1055	1364	3558	3649 78.0	9037 88.1	12686 84.9
951 Poisoning By Gases In Domestic Use	-----	0	0	-----	0	0	0	0	0	-----	-----	-----	-----
952 Poisoning By Other Gases/ Vapors	6	-----	8	-----	-----	0	-----	0	18	7	41 .9	10 .1	51 .3
953 Hanging/ Strangulation/ Suffocation	84	91	26	12	37	11	10	16	36	18	193 4.1	148 1.4	341 2.3
954 Submersion /Drowning	-----	-----	-----	0	-----	-----	0	0	0	0	-----	-----	6 .0
955 Firearms & Explosives	15	-----	-----	0	-----	0	-----	0	-----	-----	-----	-----	34 .2
956 Injury By Cutting & Piercing Instruments	96	145	120	175	98	137	63	126	173	291	550 11.8	874 8.5	1424 9.5
957 Injury By Jumping From High Place	-----	-----	12	8	8	6	-----	-----	35	22	63 1.3	40 .4	103 .7
958 Injury By Other & Unspecified Means	12	12	38	31	22	26	16	18	40	47	128 2.7	133 1.3	261 1.7
959 Late Effects Of Self-Inflicted Injury	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	15 .3	14 .1	29 .2
Total Count/ %	790	1667	1004	2010	716	1416	489	1221	1677	3949	4676 100	10263 100	14940 100

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 20: Hospitalizations For Suicide Attempts By Poisoning By HIU Area And Sex For Those Aged 10 – 24 Years 1997 To 2001 Combined Source: PHPDB, 2003													
HIU/ Sex (Counts)	NHIP		CWHPIN		SRHIP		HIP		CEHIP		Ontario Total Counts / Percents		
Icd-9 E-Codes - Suicide By Poisoning	Males	Female	Males	Female	Males	Female	Males	Female	Males	Female	Males # %	Female # %	Both # %
Poisoning By Agri & Hort Chemical & Pharmaceutics	-----	0	6	0	-----	-----	-----	0	6	8	17 .5	9 .1	26 .2
Poisoning By Analgesics, Antipyretics & Antirheumatics	204	752	221	739	158	548	139	478	478	1734	1200 32.9	4251 47.0	5451 43.0
Poisoning By Arsenic & Its Compounds	0	0	0	0	0	0	0	-----	-----	-----	----- .0	----- .0	----- .0
Poisoning By Barbiturates	-----	6	-----	-----	-----	-----	0	-----	-----	-----	13 .4	19 .2	32 .3
Poisoning By Corrosive & Caustic Substances	-----	-----	8	-----	-----	-----	-----	7	20	29	39 1.1	48 .5	87 .7
Poisoning By Oth & Unspcfd Solid & Liquid Substances	30	34	45	66	35	41	17	45	105	133	232 6.4	319 3.5	551 4.3
Poisoning By Oth Sedatives & Hypnotics	7	21	29	52	10	30	-----	20	39	80	90 2.5	203 2.2	293 2.3
Poisoning By Oth Spcfd Drugs & Medicaments	149	294	209	418	108	234	86	176	283	731	835 22.2	1853 20.5	2688 21.2
Poisoning By Tranquillizers & Oth Psychotropic Agents	155	271	242	460	207	353	128	307	405	795	1140 31.2	2186 24.2	3326 26.2
Poisoning By Unspcfd Drug/Medicament	17	29	25	34	11	22	8	17	21	45	82 2.2	147 1.6	229 1.8
Total	569	1412	790	1777	537	1235	389	1055	1364	3558	3649 100	9037 100	12686 100

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Hospitalizations for Suicide Attempts with a Most Responsible Diagnosis of Mental Illness

All hospital separations are given a “most responsible diagnosis”, which is the one diagnosis determined to be the most responsible for the patient’s stay in hospital (Canadian Institute for Health Information, 1999). A diagnosis is considered to be mental illness if the 3-digit ICD-9 code is between 290 and 319, as shown in the list below, however in Table 21 in this report, the drug and alcohol related diagnoses (291,292,304, 305) are presented separately. Almost

half of the separations for a suicide attempt in 10-24 year olds included a most responsible diagnosis in a mental health area.

Three-Digit ICD-9 Codes for Mental Illness

ICD-9
Code Description
290 Senile and presenile organic psychotic conditions
291 Alcoholic psychoses
292 Drug psychoses
293 Transient organic psychotic conditions
294 Other organic psychotic conditions (chronic)
295 Schizophrenic disorders
296 Affective psychoses
297 Paranoid states
298 Other nonorganic psychoses
299 Psychoses with origin specific to childhood
300 Neurotic disorders
301 Personality disorders
302 Sexual deviations and disorders
303 Alcohol dependence syndromes
304 Drug dependence
305 Nondependent abuses of drugs
306 Physiological malfunctions arising from mental factors
307 Special symptoms or syndromes, not elsewhere classified
308 Acute reactions to stress
309 Adjustment reactions
310 Specific nonpsychotic mental disorders following organic brain damage
311 Depressive disorder, not elsewhere classified
312 Disturbance of conduct, not elsewhere classified
313 Disturbance of emotions specific to childhood and adolescence
314 Hyperkinetic syndrome of childhood
315 Specific delays in development
316 Psychic factors associated with diseases classified elsewhere
317 Mild mental retardation
318 Other specified mental retardation
319 Unspecified mental retardation
Source: World Health Organization (1977)

Table 21: Most Responsible Diagnostic Categories For Hospital Separations For Suicide Attempt (E-Codes 950-959) For Ontario Adolescents And Youth From 1997-2001. Source: PHPDB,2003

Age Group/ Primary Diagnostic Category	10-14 Years		15-19 Years		20-24 Years		Total	
	#	%						
Mental Health Related Diagnosis *	772	44.3	3550	47.3	2698	47.4	7020	47.0
Drug Abuse Related Diagnosis[a] and Alcohol Abuse Related Diagnosis[b]	12	.7	115	1.5	181	3.2	308	2.1
Other Diagnosis (ICD-9 Codes Other Than Those Included Above)	959	55.0	3844	51.7	2809	49.4	7612	51.0
Total	1743	100%	7509	100%	5688	100%	14940	100%

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----. They are shown as -----. [a] Includes IICD-9 Codes 292, 304. [b] Includes ICD—9 codes 291, 303. *See list above the table. The data included under

mental health related diagnosis included in this table excludes: Drug Abuse Related Diagnosis[a] and Alcohol Abuse Related Diagnosis[b]

Death By Suicide

Between the years 1997 to 1999, there were a total of 351 deaths recorded as suicide in the 10-24 year age group (Table 22). Age specific rates were considerably higher in the NHIP region especially for young males (males 23.9; females 6.77). The average age specific rates for this age group were 8.5 for males and 1.79 for females. Rates were lowest in the CWHPIN region. There was considerable variation in rates from year to year. In Ontario from 1997 to 1999 males (10-24 Years) were almost 5 times (59:292) as likely to die from suicide as females.

Method of Completed Suicide

Although there are many more suicide attempts than fatalities especially in women, the method that is most lethal for both sexes appears to be hanging/strangulation /suffocation' (Table 23). The second most common method in males (20.2%) is 'firearms and explosives' while for women (20.3%) it is 'poisoning by solid or liquid substances'. Eight percent of all suicides in this age group are a result of 'jumping from a high place'.

Table 22: Deaths (Counts) By Suicide* and Age Specific Rates/100000 for Ages 10-24 Years During the Years 1997,1998,1999. Sources: *Deaths were taken from HELPS, Registrar General Vital Statistics Database: ** Population estimates used as denominators were obtained from the Provincial Health-Planning Database. These numbers reflect post censal estimates.

HIU/Year	Suicide Deaths - 10 – 24 Years			Total Population ** - 10 – 24 Years			Age Specific		
NHIP	Male	Female	Total	Male	Female	Total	Male	Female	Total
1997	27	6	33	90125	85696	175821	29.96	7.0	18.77
1998	-----	-----	24	87387	83054	170441	-----	-----	14.08
1999	------	-----	23	85771	82306	168077	------	-----	13.68
Total	63	17	80	263283	251056	514339	23.93	6.77	15.55
CWHPIN									
1997	-----	-----	14	210204	221404	431608	-----	-----	3.21
1998	-----	-----	12	223709	211821	435530	-----	-----	2.76
1999	-----	-----	16	226803	214296	441099	-----	-----	3.63
Total	37	5	42	660716	647521	1308237	5.6	-----	3.21
SRHIP									
1997	-----	-----	18	145632	152068	297700	-----	-----	6.05
1998	10	0	10	159785	146259	306044	6.26	0	3.27
1999	-----	-----	11	161081	153373	314454	-----	-----	3.50
Total	-----	-----	39	466498	451700	918198	-----	-----	4.25
HIP									
1997	13	-----	16	154801	146758	301559	8.40	-----	5.31
1998	12	6	18	154165	146572	300737	7.78	4.09	5.99
1999	12	-----	14	155671	148104	303775	7.71	-----	4.61
Total	37	11	48	464637	441434	906071	7.96	2.49	5.30
CEHIP									
1997	-----	-----	39	515208	494168	1009376	-----	-----	3.86
1998	46	9	55	526708	503785	1030493	8.73	1.79	5.34
1999	-----	------	40	536834	512991	1049825	-----	-----	3.81
Total	112	22	134	1578750	1510944	3089694	7.09	1.46	4.34
ONTARIO									
1997	107	16	123	1115970	1100094	2216064	9.59	1.45	5.55
1998	97	24	121	1151754	1091491	2243245	8.42	2.20	5.39
1999	88	19	107	1166160	1111070	2277230	7.55	1.47	4.70
Total	292	59	351	3433884	3302655	6736539	8.50	1.79	5.21

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Table 23: Deaths By Method of Suicide By Gender For 10-24 Year Olds In Ontario From The Combined Years 1997,1998,1999). Source: Statistics Canada Vital Statistics. HELPS Sharefile.			
Deaths By Gender/ ICD-9 3 Digit Codes For Suicide	**Suicide Deaths In Ontario Ages 10-24 Yrs (Percent)**		
	Male	**Female**	**Total**
950 Poisoning By Solid/ Liquid Substances	4.8	20.3	7.4
951 Poisoning By Gases In Domestic Use	0	0	0
952 Poisoning By Other Gases/ Vapors	-----	-----	-----
953 Hanging/ Strangulation/ Suffocation	52.7	64.4	54.1
954 Submersion /Drowning	0	0	0
955 Firearms & Explosives	20.2	-----	17.4
956 Injury By Cutting & Piercing Instruments	0	0	0
957 Injury By Jumping From High Place	8.2	8.5	8.3
958 Injury By Other & Unspecified Means	-----	-----	-----
959 Late Effects Of Self-Inflicted Injury	0	0	0
Total Count / %	292/100%	59/100%	351/100%

Note that cells having a count of less than 5 and cells where there would be residual disclosure of a cell of less than 5, have been suppressed in keeping with guidelines from the MOHL-TC. They are shown as -----.

Discussion

Suicide and Suicide Attempts

Data on suicide attempts used in this report is substantially limited. As stated previously, the utility of counts and rates for hospital separations for suicide attempts is limited by the fact that not all patients who attempt suicide are admitted to a hospital. As well, Canadian hospital separation data includes self-inflicted injuries considered intentional, but without suicide intent. Some individuals who have attempted suicide do not report their attempt. Therefore, both suicide attempts and completions can be misclassified as undetermined or accidental. In general, caution is necessary in interpreting rates for suicide completions because small populations and low numbers of suicide deaths can cause dramatic fluctuations in rates when no substantial changes have occurred. This can be clearly seen in data at both the HIU and the public health unit level.

The most dramatic trend in the data is the difference between males and females. Between 1997 – 2001 hospital separations for suicide attempts in female's 10-24 years old, are over twice as high as those in males, especially in 10-19 year olds. When comparing completed suicide rates from 1997 – 1999 by gender, males 10-24 years across Ontario were five times more likely to die than females.

Rates also varied by region. The hospital separations for suicide attempt rates were above the Ontario average in the SRHIP and CWHPIN regions. Overall

completed suicides were lowest in the CWHPIN Region, followed by SRHIP, and CEHIP. There was no obvious relationship to self reported depression or mental health visits in these areas although tests of significance were not completed. Limitation in the data available for this study on risk factors has severely restricted our ability to generalize or expand upon the meaning of the findings.

Overall, Ontario age specific suicide completion rates for 10-24 year olds, appear to be slightly lower over the years 1997 to 1999 (1997 - 5.55; 5.39 - 1998; 1999 - 4.70) although this trend varies from region to region and PHU to PHU. Similarly, hospital separations for suicide attempts in this age group also decreased slightly from 1997 to 1999; however rates for 2000 and 2001 have not continued this trend and show a marked increase (1997 – 148.12; 1998 - -128.43; 1999 – 122.08; 2000 – 128.62; 2001 – 131.48). Overall, separation rates do vary considerably from one PHU to another and from year to year, in large part due to the small number of suicides relative to the population bases.

Suicide deaths are considerably higher in northern Ontario regions. Trends from urban to rural areas or from wealthy to less economically advantaged PHU areas are not as clear. Other studies have found a relationship between, as Durkheim (1951) would describe it, ‘anomic areas’ or areas suffering from social and economic deprivation, and poor mental and overall health (Wing, 1992; Congdon, 1996)

Wing (1992) refers to ‘anomic areas’ of the inner city where both mental illness and suicidal behaviours are inflated and where distinct social problems (e.g. homelessness and drug abuse) overlay population transience. Congdon (1996) states that within London (UK) ‘anomie’ remains an important influence on suicide, and deprivation appears to have gained in importance as an explanatory and factoring variable in the spatial variation of suicide. He goes on to explain that suicide is an important mental health outcome and unlike ecological variation in many health variables is influenced by not only depression but also by the level of integration of the community. Community and family cohesion are important factors in preventing “anomie” in children and youth.

Another important sub-group of suicidal youth consists of well behaved, anxious ,perfectionistic youngsters who cope poorly with change (Shaeffer, 1988; Health Canada, 1994). These young people may be part of the group that Durkheim (1951) would describe as “egoistic”. This group is characterized by a strong value system, lack of integration in society, weak family ties, and a strong sense of personal responsibility. The community is not strong enough to provide the individual with a sufficient source of outside support and strength and the society is not sufficiently integrated to be able to collectively mitigate the individual’s feelings of responsibility and guilt for moral weakness and failure. Strong community, school, and family ties and supports may help prevent suicide and suicide attempts in this group as well.

Suicidal Ideation

The Ontario Student Drug Use (OSDUS) Mental Health and Well-being Survey (OSDUS-MHWB) (CAMH, 2003; Adlaf, Paglia, Beitchman, 2002) reports that about one in ten students had contemplated attempting suicide in the past 12 months, although there is no significant association with the region of the province or the grade level. Consistent with the rates on suicide attempts identified in this report, females are significantly more likely to contemplate suicide than males. Students reporting a good relationship with parents are much less likely to have thoughts of suicide; as well, feelings of connectedness and safety at school appear to correlate with lower rates of suicidal ideation (CAMH, 2003).

In a study of Montreal area adolescents, Tousignant, Bastien and Hamel (1993) conclude that a poor relationship with parents is an important factor, however they found no highly significant relationship between coming from a divorced or separated family and being suicidal. Separation was not a significant factor when the quality of the relationship with parents was taken into consideration.

Tousignant and Hanigan (1993) found that among CEGEP students in the Montreal area, those who had attempted suicide or had severe suicidal ideation could be differentiated from non-suicidal groups. The following accounted for the differences: running away from home, dropping out of school, “bad trips”,

rejection from social group and being physically attacked. Suicidal adolescent girls more frequently had abortions, pregnancy or fear of pregnancy. Broken love relationships (Tousignant & Hanigan, 1993; Jacobs, 1967), broken friendships and moving to a new home were also associated with suicidal tendencies (Tousignant & Hanigan, 1993). These behaviours could result from a number of causes but may also be considered characteristics of an 'anomic' (Durkheim, 1951) adolescent who feels alienated from family community, and social relationships.

Suicidal ideation is a very important sign of severe stress. These trends discussed above, would seem to support the need for health professionals to be trained in adolescent assessment and health promotion and to be aware of the fears and concerns of adolescents and youth. The value of security and a feeling of safety at home and school are key. Respectful sexual health care and relationship counseling are also very important to overall well-being and good mental health especially for females.

Risk Factors and Suicide

Geographic location, age, gender, culture, family and community support, visits to a health professional, socioeconomic status, mental illness as well as substance abuse are among the many interrelated factors that have been linked with an increased risk for suicide attempts and completions. The data in this report does not address many of these factors directly because the data was not

available. This points to the need for a more comprehensive databases on the mental health and mental health service needs of Ontario's youth.

Gender

A well-known difference exists between males and females and rates for suicide attempts and suicide completions in all age groups. The data analyzed for this report has supported these trends.

Geography

As a result of data limitations, trends in self-reported depression and visits to a mental health professional by location are difficult to delineate and describe, relate to hospitalizations due to suicide attempts, or correlate with suicide completions. Within NHIP, the percentages of self reports of both depression and having seen a health professional for mental health reasons (10-24 year olds) over the previous year, did not differ profoundly from the other HIU regions, however the hospital separations for suicide attempts and completed suicide rates for NHIP are considerably higher than in other areas. These rates have decreased somewhat over the years from 1997 – 1999.

The Ontario Health Status Report (PHRED, 2000) states that in 1996, hospital separations for suicide attempts (all ages) were higher in the North Region; as well, suicide completion rates were 60% higher in the north region than the rate overall for Ontario, reflecting the very high rates of suicide amongst aboriginal

peoples. Unfortunately, the suicide completion rates are not calculated separately, in this report,

for the aboriginal and non-aboriginal populations, so we cannot comment directly on this issue. However overall the high rates in the North (aboriginal plus others) between 1997-2001 are consistent with the trend in 1996.

Social and Family Discord

Although this report did not collect data on family, school and social relationships or discord, the literature supports the idea that these factors may influence suicide rates. A U.S. study done by Brent et al (1994) showed that a family history of both depression and substance abuse and a lifetime history of parent–child discord were most closely associated with adolescent suicide. A news release from the American Psychiatric Association (2003) reports on another study by Brent et al (2002). This study suggests that a strong family history of suicidal behaviour was associated with a greater risk of suicidal behaviour and earlier age at first suicide attempt in offspring, as well as greater impulsive aggression in both parents and offspring. Sound assessment and family interventions to decrease discord by qualified mental health professionals may be helpful in decreasing the risk of adolescent suicide.

Poverty

Data on family income was not available for this report. The Health Canada report Suicide in Canada (1994) states that evidence is inconsistent and does

not permit them to say with confidence that poverty (whether defined as low individual income or low average income in an area) is in itself, an independent factor in promoting suicide. Maris found (1969) a concentration of suicide in the wealthiest areas of Chicago as well as among the homeless. Using the Quebec Health Survey, Boyer, and Langelier-Biron (1991) found no correlation between income per family member and suicide. By contrast Wilkens, Adams, and Branker (1989) analyzing morbidity data from urban areas by income quintile found significantly higher age standardized rates of suicide among residents of the poorest areas.

Mental Illness

In this report, 47% of the separations for suicide attempts in 10-24 year olds in Ontario from 1997 to 2001 had a primary diagnosis related to mental illness. In addition, from 12-16% of 15-24 year olds who participated in the CCHS1.1 (by PHU) across the province self-reported having experienced depression lasting 2 weeks or longer in the previous 12 months.

As a group, those who have been diagnosed with clinically severe depression or some other psychiatric disorder, face a statistically higher risk of suicide and suicidal behaviour than the general population. However, existing evidence indicates that no one determinant (including psychiatric disorders) is either necessary or sufficient to bring about suicide but each involves a complex interaction of various factors (Health Canada, 1994).

Access to a Method of Suicide

Firearms were involved in 34 documented (hospital separations) suicide attempts from 1997-2001 in Ontario in 10-24 year olds. The majority of these were in males. Sixty-one deaths by suicide were committed with firearms from 1997-1999, and once again the vast majority were males.

Access to firearms has been shown to increase suicide rates in youth (Price, Everett, Bedel, & Telljohan, 1997; Dresang, 2001). In a U.S. study, rural rather than urban areas, often have a higher percentage of gun related deaths and suicides because guns are more available in these areas (Dresang, 2001). Miller, Azrael, and Hemenway (2002) found that in the U.S., a disproportionately high number of 5-14 year olds died from suicide, homicide and unintentional firearm deaths in states and regions where guns were more prevalent. In a cross-national comparison of 34 countries (Johnson, Krug & Potter, 2000) an association was found between firearm availability and suicide rates in 15-24 year old males. Family physicians, public health staff and other mental health professionals have an opportunity to screen and promote behaviours that reduce the risk of firearm related injuries in both patients and their families (Dresang, 2001; Price, Everett, Bedell and Telljohan, 1997).

Access to Alcohol

Three hundred and eight of the hospital separations for suicide attempts for 10-24 year olds from 1997-2001 had a primary diagnosis related to alcohol or drug abuse (Table 21). Birckmayer and Hemenway (1999), from the School of Public Health at Harvard University, studied the association between minimum legal drinking age (MLDA) and suicides among youth aged 18 to 24 years. A significant association was found. They conclude that alcohol use and MLDA are associated not only with motor vehicle accidents in 18 to 21 year olds but also the rate of suicide. Raising the MLDA to 21 years was suggested in order to lower the risk of alcohol related incidents in the 18-21 year old group.

Visits to health care providers/GP's

In this report, between 5-13% of 15-24 years olds in the CCHS1.1 (2000) survey reported having visited a mental health professional in the 12 months prior to the survey. Studies indicate that visits to a physician increase in the weeks prior to a suicide attempt (Andersen, Andersen, Rosholm, & Gram, 2000; Appleby, Amos & Doyle).

This could lead one to conclude that if health care providers (especially physicians, since they are most often the primary contact) received ongoing suicide and depression training and refresher programs (e.g. every two years), the frequency of suicide attempts and inpatient cases of depression might be markedly decreased. This was clearly demonstrated through a longitudinal program in Gotland Sweden (Rutz, Walinder & Eberhard, 1989; Rutz, von

Knorring & Walinder, 1989; Slaven, & Kisley, 2002; Rutz, Carlsson, von Knorring & Walinder, 1995). Mental health professionals should assess adolescents on a regular basis as young patients presenting to their physician with physical complaints often have unrecognized but significant levels of psychological distress and suicidal ideation (Atala & Baxter, 1989; Frankenfeld et al, 2000; McKelvy, Pfaff & Acres, 2001). A brief mental health-screening tool for adolescents and young people has been tested in the U.S. and found to be reliable and valid when used by general practitioners. (Joiner, Pfaff & Acres, 2002).

Conclusions

Suicide and suicide attempts continue to be a major health care issue across Ontario, and are significantly more prevalent in northern Ontario. The quality and availability of data is inadequate to clearly determine the true extent of the problem and identify risk factors with a reasonable degree of confidence. We are confident however, that hospital-based data and mortality data are substantially undercounting the true prevalence of child and adolescent suicides and suicidal behaviours due in large part to the manner in which suicidal intention is ascertained.

While suicide and suicidal behaviours are a great concern for this age group, the overall mental health of these young people and their access to services should be as great a concern. Suicide is only an expression of the great need for mental health services from a group who are not likely to demand it. Almost half

of those (10-24 years) who were hospitalized for attempted suicide from 1997 t0 2001 in Ontario had a 'Most Responsible Diagnosis' related to mental health. As well, approximately 15% of 10-24 years olds self report having a depressive episode in the previous 12 months, while only half of these have seen a mental health professional. This evidence, supported by previous research, provides additional rationale for the development of early identification and intervention programming.

The literature does provide many useful starting points in developing a more proactive service response to this need. For instance, improving family and community cohesion and providing sound mental health assessment and treatment by a well-trained health professional, might improve the mental health of teens and youth, thereby reducing suicidal behaviours and deaths. Services for youth should be seriously reexamined. Family doctors, teachers, school health professionals and others who have frequent access to teens, youth, and their parents, should be keenly aware of suicidal risk factors, effective evidence-based counseling approaches and appropriate community resources. Public health policy should work to limit access to methods of suicide such as firearms, and decrease other risk factors, while promoting increased access to mental health services for teens, youth and their families.

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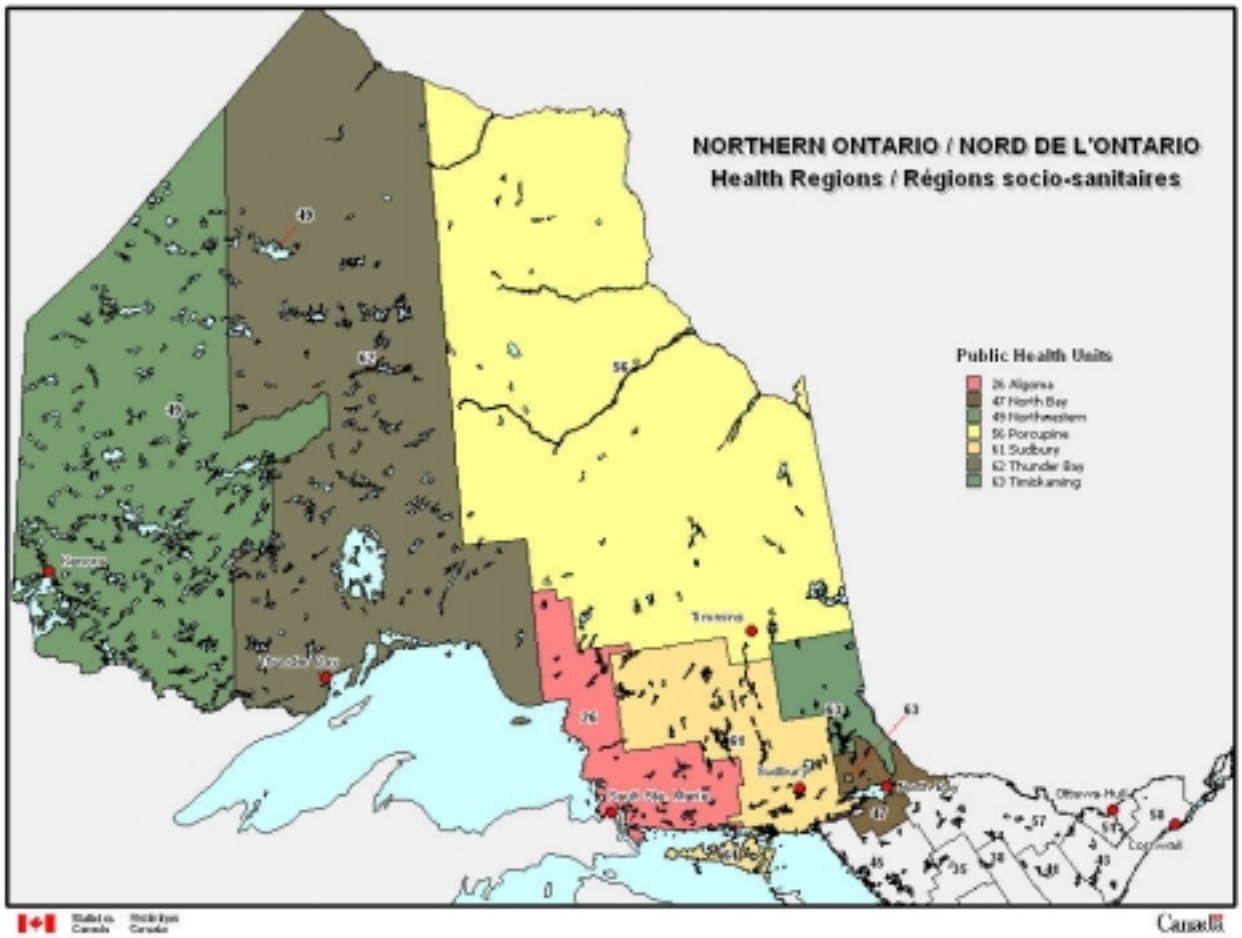
Appendix A
Maps Of Public Health Units In Ontario
South And North Regions

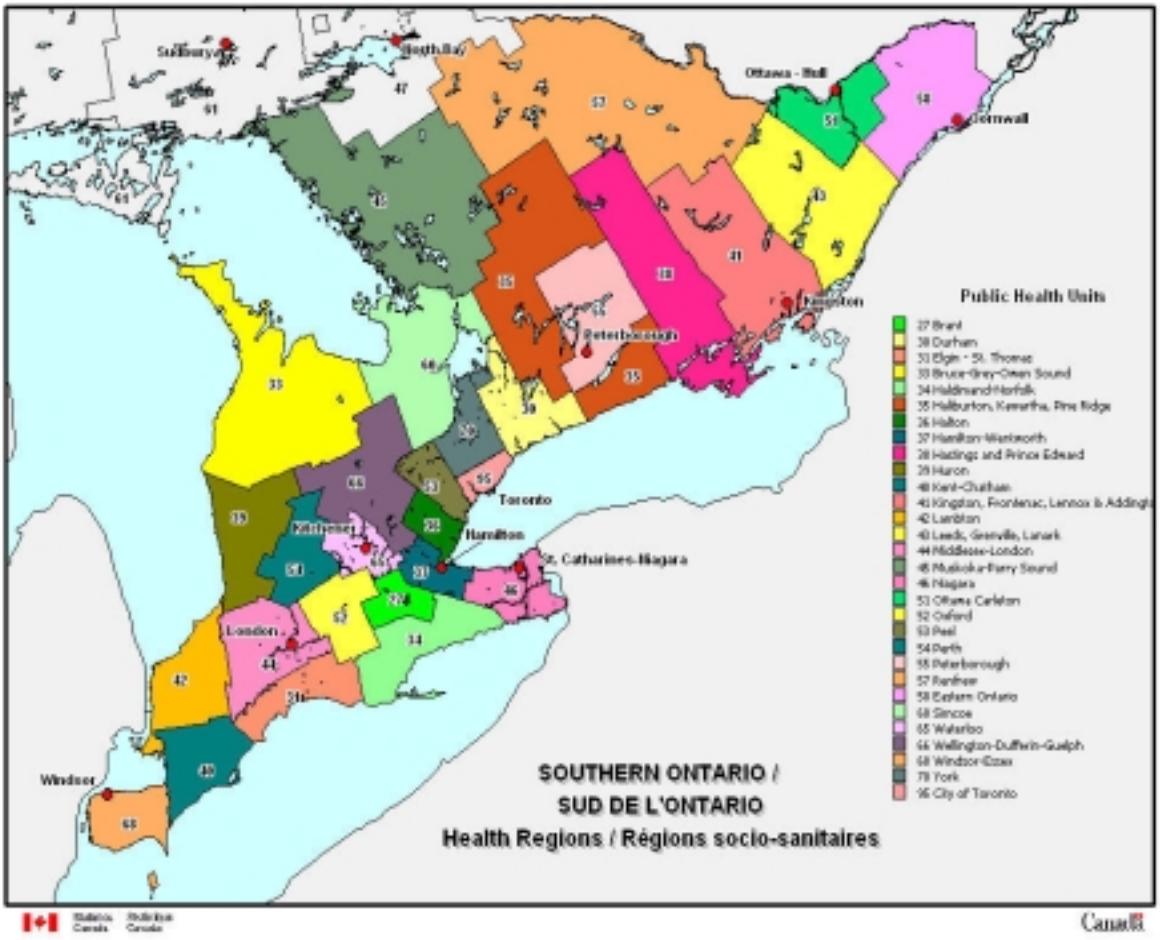
Map: Northern Ontario Health Regions

http://www.statcan.ca/english/concepts/health/maps/ontario_north.jpg



Map: Southern Ontario Health Regions

http://www.statcan.ca/english/concepts/health/maps/ontario_south.jpg



Appendix B
Ontario Public Health Unit Areas Shown by County and Health Intelligence Unit

Appendix B – Ontario Public Health Unit Areas Shown by County and Health Intelligence Unit

PHU Area	*HIU Area*	*County Name*
Algoma PHU	NHIP	ALGOMA
North Bay	NHIP	NIPISSING
Northwestern PHU	NHIP	KENORA
		RAINY RIVER
Porcupine PHU	NHIP	COCHRANE
Sudbury PHU	NHIP	MANITOULIN
		SUDBURY (R.M.)
		SUDBURY (DISTRICT)
Thunder Bay PHU	NHIP	THUNDER BAY
Timiskaming	NHIP	TIMISKAMING
Haldimand-Norfolk PHU	CWHPIN	HALDIMAND-NORFOLK
Brant PHU	CWHPIN	BRANT
Halton PHU	CWHPIN	HALTON
Hamilton PHU	CWHPIN	HAMILTON-WENTWORTH
Niagara PHU	CWHPIN	NIAGARA
Waterloo PHU	CWHPIN	WATERLOO
Wellington-Dufferin-Guelph	CWHPIN	DUFFERIN
		WELLINGTON
Elgin-St. Thomas	SRHIP	ELGIN
Bruce-Grey-OS PHY	SRHIP	BRUCE
	SRHIP	GREY
Huron PHU	SRHIP	HURON
Lambton PHU	SRHIP	LAMBTON
Middlesex-London PHU	SRHIP	MIDDLESEX
Windsor-Essex PHU	SRHIP	ESSEX
Oxford PHU	SRHIP	OXFORD
Perth PHU	SRHIP	PERTH
Kent-Chatham	HIP	KENT
Renfrew	HIP	RENFREW
Eastern Ontario PHU	HIP	PRESCOTT & RUSSELL
		STORMONT, DUNDAS & GLENGARY

PHU Area	*HIU Area*	*County Name*
Ottawa-Carleton PHU	HIP	OTTAWA-CARLETON
Leeds-Grenville-Lanark PHU	HIP	LANARK
		LEEDS & GRENVILLE
KFLA PHU	HIP	FRONTENAC
		LENNOX & ADDINGTON
Hastings-Pr.Ed. PHU	HIP	HASTINGS
		PRINCE EDWARD
York PHU	CEHIP	YORK
City of Toronto PHU	CEHIP	TORONTO METROPOLITAN
Simcoe PHU	CEHIP	SIMCOE
Peel PHU	CEHIP	PEEL
Peterborough PHU	CEHIP	PETERBOROUGH
Muskoka P.S. PHU	CEHIP	MUSKOKA
		PARRY SOUND
Durham PHU	CEHIP	DURHAM
Haliburton-Kaw-P.R. PHU	CEHIP	HALIBURTON
		NORTHUMBERLAND
		VICTORIA

Appendix C
Common and Optional Content in the CCHS1.1

Appendix C
Common and Optional Content in the CCHS1.1

CCHS1.1 Common content	CCHS 1.1 Optional content
Alcohol Alcohol dependence / abuse Blood pressure check Breastfeeding Chronic conditions Contacts with mental health professionals Exposure to second hand smoke Food insecurity Fruit and vegetable consumption General health Health care utilization Health Utility Index (HUI) Height / weight Injuries Mammography PAP smear test Physical activities PSA test Restriction of activities Smoking Tobacco alternatives Two-week disability Patient satisfaction Administration Household record variables Income Labour force Socio-demographic characteristics	Breast examinations Breast self examinations Changes made to improve health Dental visits Depression Distress Driving under influence Drug use Eye examinations Flu shots Home care Mastery Mood Physical check-up Sedentary activities Self-esteem Sexual behaviours Smoking cessation aids Social support Spirituality Suicidal thoughts and attempts Use of protective equipment Work stress

http://www.statcan.ca/english/concepts/health/content.htm

Appendix D
Canadian Community Health Survey 1.1 Questions on Depression and Visits with a Mental Health Professional

Appendix D
Canadian Community Health Survey 1.1 Questions on Depression and Visits with a Mental Health Professional

DEPRESSION

DP_BEG Selection of the module will be indicated using a Health Region number or province code.

DP_C01 If proxy interview, go to DP_END.

DP_Q02 **During the past 12 months, was there ever a time when you felt sad, blue, or depressed for 2 weeks or more in a row?**

1 Yes

2 No (Go to DP_Q16)

DK, R (Go to DP_END)

DP_Q03 **For the next few questions, please think of the 2-week period during the past 12 months when these feelings were the worst. During that time, how long did these feelings usually last?**

INTERVIEWER: Read categories to respondent.

1 **All day long**

2 **Most of the day**

3 **About half of the day** (Go to DP_Q16)

4 **Less than half of a day** (Go to DP_Q16)

DK, R (Go to DP_END)

DP_Q04 **How often did you feel this way during those 2 weeks?**

INTERVIEWER: Read categories to respondent.

1 **Every day**

2 **Almost every day**

3 **Less often** (Go to DP_Q16)

DK, R (Go to DP_END)

DP_Q05 **During those 2 weeks did you lose interest in most things?**

1 Yes (KEY PHRASE = Losing interest)

2 No

DK, R (Go to DP_END)

DP_Q06 **Did you feel tired out or low on energy all of the time?**

1 Yes (KEY PHRASE = Feeling tired)

2 No

DK, R (Go to DP_END)

DP_Q07 **Did you gain weight, lose weight or stay about the same?**

1 Gained weight (KEY PHRASE = Gaining weight)

2 Lost weight (KEY PHRASE = Losing weight)

3 Stayed about the same (Go to DP_Q09)

4 Was on a diet (Go to DP_Q09)

DK, R (Go to DP_END)

DP_Q08A **About how much did you %gain/lose%?**

INTERVIEWER: Enter amount only.

|_|_| Weight

(MIN: 1) (MAX: 99; warning after 20 pounds / 9 kilograms)

DK, R (Go to DP_Q09)

DP_Q08B INTERVIEWER: Was that in pounds or in kilograms?

1 Pounds

2 Kilograms

(DK, R are not allowed)

DP_Q09 **Did you have more trouble falling asleep than you usually do?**

1 Yes (KEY PHRASE = Trouble falling asleep)

2 No (Go to DP_Q11)

DK, R (Go to DP_END)

DP_Q10 **How often did that happen?**

INTERVIEWER: Read categories to respondent.

1 **Every night**

2 **Nearly every night**

3 **Less often**

DK, R (Go to DP_END)

DP_Q11 **Did you have a lot more trouble concentrating than usual?**

1 Yes (KEY PHRASE = Trouble concentrating)

2 No

DK, R (Go to DP_END)

DP_Q12 **At these times, people sometimes feel down on themselves, no good or worthless. Did you feel this way?**

1 Yes (KEY PHRASE = Feeling down on yourself)

2 No

DK, R (Go to DP_END)

DP_Q13 **Did you think a lot about death - either your own, someone else's or death in general?**

1 Yes (KEY PHRASE =Thoughts about death)

2 No

DK, R (Go to DP_END)

DP_C14 If "Yes" in DP_Q5, DP_Q6, DP_Q9, DP_Q11, DP_Q12 or DP_Q13, or DP_Q7 is

“gain” or “lose”, go to DP_Q14C. Otherwise, go to DP_END.

DP_Q14C **Reviewing what you just told me, you had 2 weeks in a row during the past 12 months when you were sad, blue or depressed and also had some other things like (KEY PHRASES).**

INTERVIEWER: Press <Enter> to continue.

DP_Q14 **About how many weeks altogether did you feel this way during the past 12 months?**

|_|_| Weeks

(MIN: 2 MAX: 53)

(If > 51 weeks, go to DP_END)

DK, R (Go to DP_END)

DP_Q15 **Think about the last time you felt this way for 2 weeks or more in a row. In what month was that?**

1 January 7 July

2 February 8 August

3 March 9 September

4 April 10 October

5 May 11 November

6 June 12 December

Go to DP_END

DP_Q16 **During the past 12 months, was there ever a time lasting 2 weeks or more when you lost interest in most things like hobbies, work or activities that usually give you pleasure?**

1 Yes

2 No (Go to DP_END)

DK, R (Go to DP_END)

DP_Q17 **For the next few questions, please think of the 2-week period during the past 12 months when you had the most complete loss of interest in things. During that 2-week period, how long did the loss of interest usually last?**

INTERVIEWER: Read categories to respondent.

1 **All day long**

2 **Most of the day**

3 **About half of the day** (Go to DP_END)

4 **Less than half of a day** (Go to DP_END)

DK, R (Go to DP_END)

DP_Q18 **How often did you feel this way during those 2 weeks?**

INTERVIEWER: Read categories to respondent.

1 **Every day**

2 **Almost every day**

3 **Less often** (Go to DP_END)

DK, R (Go to DP_END)

DP_Q19 **During those 2 weeks did you feel tired out or low on energy all the time?**

1 Yes (KEY PHRASE = Feeling tired)

2 No

DK, R (Go to DP_END)

DP_Q20 **Did you gain weight, lose weight, or stay about the same?**

1 Gained weight (KEY PHRASE = Gaining weight)

2 Lost weight (KEY PHRASE = Losing weight)

3 Stayed about the same (Go to DP_Q22)

4 Was on a diet (Go to DP_Q22)

DK, R (Go to DP_END)

DP_Q21A **About how much did you %gain/lose%?**

INTERVIEWER: Enter amount only.

|_|_| Weight

(MIN: 1) (MAX: 99; warning after 20 pounds / 9 kilograms)

DK, R (Go to DP_Q22)

DP_Q21B INTERVIEWER: Was that in pounds or in kilograms?

1 Pounds

2 Kilograms

(DK, R are not allowed)

DP_Q22 **Did you have more trouble falling asleep than you usually do?**

1 Yes (KEY PHRASE = Trouble falling asleep)

2 No (Go to DP_Q24)

DK, R (Go to DP_END)

DP_Q23 **How often did that happen?**

INTERVIEWER: Read categories to respondent.

1 **Every night**

2 **Nearly every night**

3 **Less often**

DK, R (Go to DP_END)

DP_Q24 **Did you have a lot more trouble concentrating than usual?**

1 Yes (KEY PHRASE = Trouble concentrating)

2 No

DK, R (Go to DP_END)

DP_Q25 **At these times, people sometimes feel down on themselves, no good, or worthless. Did you feel this way?**

1 Yes (KEY PHRASE = Feeling down on yourself)

2 No

DK, R (Go to DP_END)

DP_Q26 **Did you think a lot about death - either your own, someone else's, or death in general?**

1 Yes (KEY PHRASE =Thoughts about death)

2 No

DK, R (Go to DP_END)

DP_C27 If any "Yes" in DP_Q19, DP_Q22, DP_Q24, DP_Q25 or DP_Q26, or DP_Q20 is "gain" or "lose", go to DP_Q27C. Otherwise, go to DP_END.

DP_Q27C **Reviewing what you just told me, you had 2 weeks in a row during the past 12 months when you lost interest in most things and also had some other things like (KEY PHRASES).**

INTERVIEWER: Press <Enter> to continue.

DP_Q27 **About how many weeks did you feel this way during the past 12 months?**

|_|_| Weeks

(MIN: 2 MAX: 53)

(If > 51 weeks, go to DP_END)

DK, R (Go to DP_END)

DP_Q28 **Think about the last time you had 2 weeks in a row when you felt this way. In what month was that?**

1 January 7 July

2 February 8 August

3 March 9 September

4 April 10 October

5 May 11 November

6 June 12 December

DP_END Go to next module

CONTACTS WITH MENTAL HEALTH PROFESSIONALS

CM_BEG

CM_C01 If proxy interview, go to CM_END.

CM_QINT **Now some questions about mental and emotional well-being.**

INTERVIEWER: Press <Enter> to continue.

CM_Q01K **In the past 12 months, that is, from %date one year ago% to yesterday,**

have you seen, or talked on the telephone, to a health professional about your emotional or mental health?

1 Yes

2 No (Go to CM_END)

DK, R (Go to CM_END)

CM_Q01L **How many times (in the past 12 months)?**

I_I_I_I Times

(MIN: 1) (MAX: 366; warning after 25)

CM_Q01M **Whom did you see or talk to?**

INTERVIEWER: Read categories to respondent. Mark all that apply.

1 **Family doctor or general practitioner**

2 **Psychiatrist**

3 **Psychologist**

4 **Nurse**

5 **Social worker or counsellor**

6 **Other** - Specify

CM_END Go to next module

Appendix E
CCHS Tables With Counts

Appendix E *CCHS Tables With Counts*

Table A1: Percentage Of Those Who *Had No* Significant Depression In The Last Year By Age And Public Health Unit's In NHIP HIU Area In The Year 2000. Source: CCHS 1.1 Sharefile (2000). * [a]

Age Group PHU Area	15-19 Years		20-24 Years		Total 15-24 Years	
NHIP	Count	Percent	Count	Percent	Count	Percent
Algoma	8300	90.9	6100	82.7	14300	86.8
North Bay PHU	5500	77.2	5100	85	10600	81.1
Northwestern PHU	3700	82.4	3400	82.1	7100	82.3
Porcupine PHU	-----	-----	-----	-----	9500	92.8
Sudbury PHU	11400	84.8	12100	81.5	23500	83.2
Thunderbay PHU	8200	83.4	8900	86.6	17100	85
Timiskaming PHU	-----	-----	-----	-----	4200	90.2
Total	45700	85.6	42300	84.8	88000	85.2

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Table A2: Percentage Of Those Who Had No Significant Depression In The Last Year By Age And Public Health Unit's In The CWHPIN HIU Area In the Year 2000. Source: CCHS 1.1 (2000) Sharefile*[a]**

Age Group/ PHU area	15-19 years		20-24 years		Total 15-24 years	
CWHPIN	Count	Percent	Count	Percent	Count	Percent
Haldimand-Norfolk PHU	-----	-----	-----	-----	14800	90.7
Halton PHU	22100	84.8	22000	79.6	44100	82.2
Hamilton PHU	29000	90.2	29800	84.2	58800	87.2
Niagara PHU	23300	88.4	23200	84.9	46400	86.7
Waterloo PHU	30100	89.4	27000	84.7	57100	87.2
Well.-Duff.-Guelph PHU	-----	-----	-----	-----	27100	84.1
Total	127800	88.4	120600	83.6	248300	86

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----. ** Brant did not participate.

Table A3: Percentage Of Those Who Had No Significant Depression In The Last Year By Age And Public Health Unit's In the SRHIP HIU Region in the Year 2000. Source: CCHS 1.1 (2000) Sharefile*[a]

Age group /PHU area	15-19 Years		20-24 years		Total 15-24 years	
SRHIP	Count	Percent	Count	Percent	Count	Percent
Elgin-St Thomas PHU	-----	-----	-----	-----	8700	83.2
Bruce-Grey-OS PHU	-----	-----	-----	-----	18000	84.8
Huron PHU	-----	-----	-----	-----	7900	81.2
Kent-Chatham PHU	7000	94.1	8600	94.9	15500	94.5
Lambton PHU	9900	95.9	8300	93.8	18200	94.9
Middlesex-London PHU	23200	84.2	25100	84.3	48300	84.3
Oxford PHU	6900	87.3	6600	92.8	13500	90.1
Perth PHU	5200	91	5100	85	10300	88
Windsor-Essex PHU	28300	92.2	26700	83.3	54900	87.8
Total	100200	88.3	95100	86.2	195300	87.3

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Table A4: Percentage Of Those Who Had No Significant Depression In The Last Year By Age And Public Health Unit's In HIP HIU Area For The Year 2000. Source: CCHS 1.1 (2000) Sharefile*[a]

Age Group /PHU Area	15-19 Years		20-24 Years		Total 15-24 Years	
HIP	Count	Percent	Count	Percent	Count	Percent
Hastings/P.E. PHU	11500	89.4	7100	73.8	18600	81.6
KFLA PHU	9700	90.1	10400	85.5	20100	87.8
Leeds-Gren. – Lan. PHU	-----	-----	-----	-----	19100	86.5
Ottawa Carl. PHU	37700	81.1	46300	81.9	84100	81.5
Renfrew PHU	-----	-----	-----	-----	10700	85.3
E. Ontario PHU	-----	-----	-----	-----	22200	88.5
Total	87400	84.9	87200	82.8	174700	83.9

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Table A5: Percentage Of Those Who Had No Significant Depression In The Last Year By Age And Public Health Unit 's In CEHIP HIU Area In The Year 2000. Source: CCHS 1.1 (2000) Sharefile*[a]						
Age Group /PHU Area	**15-19 Years**		**20-24 Years**		**Total 15-24 Years**	
CEHIP	Count	Percent	Count	Percent	Count	Percent
Durham PHU	40200	91.4	26200	88	66400	89.7
Hal. -Kaw. -P Ridge PHU	-----	-----	-----	-----	17500	83.1
Muskoka- Parry Sound PHU	-----	-----	4200	86.1	8900	83.4
Peel PHU	63000	86.1	72200	86.1	135300	86.1
Peterborough PHU	8600	97.5	7700	88.1	16300	92.8
Simcoe PHU	23800	87.1	21700	86.6	45500	86.9
York PHU	44600	82.4	44200	85.4	88800	83.7
City of Toronto PHU	137200	91.4	158100	89.2	137500	90.3
Total	332300	88.4	341700	87.6	674000	88.0

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Contact With A Mental Health Professional

Table A6: Percentage Of Those Who Had Not Consulted A Mental Health Professional In The Last Year By Age and Public Health Unit Area in the NHIP HIU Area. Source: CCHS 1.1 (2000) Sharefile*[a]						
Age Group /PHU Area	**15-19years**		**20-24 Years**		**Total 15-24 Years**	
NHIP	Count	Percent	Count	Percent	Count	Percent
Algoma	8700	95.3	7300	100.0	16000	97.7
North Bay PHU	5900	82.7	5600	93.5	11500	88.1
Northwestern PHU	-----	-----	-----	-----	8000	93.0
Porcupine PHU	6200	93.6	5400	98.6	11600	96.1
Sudbury PHU	11800	88.2	12700	86.0	24600	87.1
Thunderbay PHU	9500	96.2	9600	93.8	19100	95.0
Timiskaming PHU	-----	-----	-----	-----	4200	90.5
Total	48500	90.5	46400	94.4	95000	92.5

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

TableA7: Percentage Of Those Who Had Not Consulted A Mental Health Professional In The Last Year By Age and Public Health Unit Area in the CWHPIN HIU Area. Source: CCHS 1.1 (2000) Sharefile*[a]						
Age Group / PHU Area	**15-19years**		**20-24 Years**		**Total 15-24 Years**	
CWHPIN	Count	Percent	Count	Percent	Count	Percent
Brant	9600	96.0	8700	95.0	18300	95.5
Haldimand-Norfolk PHU	8200	94.7	7000	92.5	15200	93.6
Halton PHU	24600	94.4	24000	86.9	48600	90.6
Hamilton PHU	29300	91.1	32900	93.2	62200	92.2
Niagara PHU	25000	95.1	25100	92.1	50100	93.6
Waterloo PHU	32000	95.1	29300	92.1	61300	93.6
Well. -Duff. -Guelph PHU	16900	95.6	12200	84.0	29100	89.8
Total	145600	94.6	139300	90.8	284900	92.7

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Table A8: Percentage Of Those Who Had Not Consulted A Mental Health Professional In The Last Year By Age and Public Health Unit Area in the SRHIP HIU Area . Source: CCHS 1.1 (2000) Sharefile*[a]						
Age Group/ PHU Area	**15-19 Years**		**20-24 Years**		**Total 15-24 Years**	
SRHIP	Count	Percent	Count	Percent	Count	Percent
Elgin-St Thomas PHU	-----	-----	-----	-----	10100	94.7
Bruce-Grey-OS PHU	-----	-----	-----	-----	19300	90.9
Huron PHU	4800	96.3	4500	94.6	9300	95.5
Kent-Chatham PHU	7000	95.1	8600	94.8	15600	95.0
Lambton PHU	9500	92.4	8600	97.2	18100	94.8
Middlesex-London PHU	26500	96.5	26600	89.2	53100	92.9
Oxford PHU	6600	83.4	6300	89.4	12900	86.4
Perth PHU	5500	95.6	5400	91.4	10900	93.5
Windsor-Essex PHU	30200	98.5	29300	91.3	59400	94.9
Total	107700	93.7	101100	92.7	208800	93.2

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[a]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Table A9: Percentage Of Those Who Had Not Consulted A Mental Health Professional In The Last Year By Age and Public Health Unit Area in the HIP HIU Area. Source: CCHS 1.1 (2000) Sharefile*[a]						
Age Group/ /PHU Area	**15-19 Years**		**20-24 Years**		**Total 15-24 Years**	
HIP	Count	Percent	Count	Percent	Count	Percent
Hastings/P.E. PHU	12500	97.2	6900	71.8	19400	84.5
KFLA PHU	10200	94.3	11600	95.4	21700	94.9
Leeds-Gren. – Lan. PHU	11200	93.1	9200	91.8	20400	92.5
Ottawa Carl. PHU	42000	90.3	50300	89.0	92400	89.7
Renfrew PHU	5700	98.3	5900	87.4	11600	92.9
E. Ontario PHU	13700	90.9	8900	87.1	22600	89.0
Total	95200	94.0	92900	87.1	188100	90.6

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[3]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Table A10: Percentage Of Those Who Had Not Consulted A Mental Health Professional In The Last Year By Age and Public Health Unit Area in the CEHIP HIU Area. Source: CCHS 1.1 (2000) Sharefile*[a]						
Age Group/ PHU Area	**15-19 Years**		**20-24 Years**		**Total 15-24 Years**	
CEHIP	Count	Percent	Count	Percent	Count	Percent
Durham PHU	42400	96.4	27200	91.2	69600	93.8
Hal. -Kaw. -P Ridge PHU	-----	-----	-----	-----	19100	90.2
Muskoka- Parry Sound PHU	-----	-----	-----	-----	10200	95.4
Peel PHU	71700	98.0	79100	94.3	150800	96.2
Peterborough PHU	8400	95.0	8700	99.0	17100	97.0
Simcoe PHU	25900	94.6	22400	89.5	48300	92.1
York PHU	49800	92.1	48000	92.8	97800	92.5
City of Toronto PHU	144500	96.3	165000	93.0	309500	94.7
Total	317600	95.0	335300	92.9	652800	94.0

*Counts are rounded to the nearest 100 digit and percents to one decimal place (CCHS Reporting Guideline 2000/2001).
[3]Note: Cells where the unweighted data is less than 30 cannot be reported and are shown as -----

Appendix F
Glossary of Terms

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Glossary of Terms

Age-Specific Mortality Rate - The annual number of deaths in a given age group from the selected disease per 100,000 populations in that age group.

Ontario Guidelines for Mandatory Health Programs and Services - The purpose of the standards is to set out the minimum requirements for fundamental public health programs and services targeted at prevention of disease, health promotion and health protection. These standards reflect broad aspirations for the health of all Ontarians and the important role of boards of health in providing and/or ensuring relevant programs and services.

The Mandatory Health Programs and Services Guidelines are published by the Minister of Health and Long-Term Care, pursuant to Section 7 of the Health Protection and Promotion Act, R.S.O. 1990, c. H.7. Prepared by the Ministry of Health and Long-Term Care, Public Health Branch. Website PDF File: http://www.health.gov.on.ca/english/providers/pub/pubhealth/manprog/mhp.pdf

Population Estimates - Source: PHPDB, 1997-2000 Calendar Yrs, post-censal estimates; Canadian Census 2001 Sharefile – 2001 estimates. All data reported by gender.

Postvention - The suicide of a young person/student has far-reaching effects that impact both students and personnel in the immediate school community, as well as others in the larger community outside the school. Support in the aftermath of a suicide is called "postvention."

Postvention efforts should be targeted at all students and school personnel who perceive the loss as significant to them. It is important to remember that the loss of a peer or loved one to suicide is a traumatic event for adolescents.

Potential Years of Life Lost (PYLL) - In this report PPYL is calculated for the deaths by suicide. The number represents the years of life lost between the age at death and age 75.

Definitions for Suicide

Hospital Separations for Suicide Attempts – When a patient is discharged from a hospital in Ontario they are assigned a discharge code. Records with a discharge e-code of 950-959 would be considered a hospital separation for a suicide attempt.

Suicide Attempt - O'Carroll et al (1996) defined suicide as a potentially self-injurious behavior, for which there is evidence (either explicit or implicit) that the person intended at some level to kill himself/herself.

Suicidal thoughts or ideation - The definition in the CCHS 1.2 survey is : The Population aged 15 and over classified according to whether they thought about committing suicide or taking their own life in the 12 months prior to interview. Note: Some respondents were not asked the questions required for the calculation of '12-month suicidal thought'. Consequently, important information was missing for those individuals (this represented 4.83% of all respondents for this variable). To fill in these missing responses, an imputation strategy was used to assign values for '12 month suicidal thought'

Suicide – A suicide attempt resulting in death.

The Total Death Rate (Crude Rate) - The total number of deaths from the selected disease relative to the total population (per 100,000).

Acronyms

AC-SBAY - The 'Advisory Committee for the CWHPIN Suicidal Behavior Profile For Adolescents And Young People In Ontario' guides and oversees the content

and dissemination of the CWHPIN report – Ontario Suicidal Behavior Profile For Adolescents And Young People In Ontario (SBAY).

ALC – 'Alternate Level of Care' is alternative care that would have been more appropriate for a patient, who did not meet the criteria for acuteness, had it been available. There are 13 possible alternatives, including: residence, outpatient services, home care, minimal supervision, hospice, rehabilitation, Personal Care Home (PCH), chronic care, observation, respite care, room-in, crisis / protection, and organic brain illness.

ALOS - 'Average Length of Stay ' is the mean number of days of care for inpatient hospitalizations for residents of a given region.

CAMH – 'The Centre for Addiction and Mental Health' is a public hospital in Toronto, Ontario, providing direct patient care for people with mental health and addiction problems. The Centre is also a research facility, an education and training institute and a community based organization providing health promotion and prevention services across the province of Ontario, Canada, and is a Pan American Health Organization and World Health Organization Collaborating Centre.

CCHS – 'The Canadian Community Health Survey' The Canadian Community Health Survey (CCHS) - Cycle 1.1, was conducted by Statistics Canada to provide cross-sectional estimates of health determinants, health status and health system utilization for 133 health regions across Canada, plus the territories. The second cycle, The Canadian Community Health Survey: Mental Health & Well-Being (1.2) is designed to provide reliable, comprehensive and comparable data on selected mental health conditions. There is data from versions 1.1 and 1.2 included in this report. The following question from the CCHS1.1 were analyzed for use in this report: (Source: CCHS1.1 (2000) Statistics Canada Sharefile. All data reported by gender)

Depression

Derived depression scale – short form score

Variable name: DPSADSF Based on: DPSA_02, DPSA_03, DPSA_04, DPSA_05, DPSA_06, DPSA_08A, DPSA_08B, DPSA_10, DPSA_11, DPSA_12, DPSA_13, DPSA_16, DPSA_17, DPSA_18, DPSA_19, DPSA_21A, DPSA_21B, DPSA_23, DPSA_24, DPSA_25, DPSA_26

Description: The following variable assesses the respondent's depression state. The items used to measure depression are based on the work of Kessler and Mroczek. They selected a subset of items from the Composite International Diagnostic Interview (CIDI) that measure major depressive episode (MDE). The CIDI is a structure diagnostic instrument that was designed to produce diagnoses according to the definitions and the criteria of both DSM-lll-R and the Diagnostic Criteria for the Research of the ICD-10. The short-form of MDE used in the CCHS was developed to operationalize Criteria A through C of the DSM-III-R diagnosis of MDE. The diagnostic hierarchy rules defined in the Criterion D (not superimposed on schizophrenia, schizophrenia form disorder, delusional disorders, or psychotic disorders NOS) were ignored.

Contacts with mental health professionals

CM_Q01K- In the past 12 months, that is, from _ date one year ago to yesterday, have you seen, or talked on the telephone, to a health professional about your emotional or mental health? (1 Yes; 2 No (Go to CM_END) ;DK, R (Go to CM_END

DHC – 'District Health Councils' provide health services to the people of Ontario. District Health Councils (DHCs), located throughout the province, are the local voice in health planning. People who use and deliver health and health related services come together through the DHCs to provide advice to the Minister of Health.

The goal of all partners in health planning is to achieve a health system that provides high quality, comprehensive and accessible services that improve health at every stage of a person's life.

HIU - 'Ontario Health Intelligence Unit Program'. Health intelligence is the end product of a process of analysis of health data to provide information about the health needs, expectations and resources for a population, and interpretation and application of the information to the planning of education, research and health services.

In this program, a Health Intelligence Unit **(**HIU**)** will perform a support function to enhance the planning mandates of a regional partnership of District Health Councils, Public Health Units and Academic Health Sciences Centres.

The purpose of the HIU program is to strengthen regional partnerships among District Health Councils, Public Health Units and Academic Health Centres, to support their common and complementary roles in health assessment and planning for their populations, and to enhance the capability and capacity of these agencies to analyze, interpret and apply health information in their planning activities.

The support provided by HIU's is expected to accomplish continuous quality improvement in planning, through the sound analysis and application of appropriate health planning information. Website: http://www.healthinformation.on.ca/

The following 5 Units make up the HIU Program in Ontario:

CEHIP – Central East Health Information Partnership (Website: http://www.cehip.org/menujs.html)

CWHPIN - Central West Health Information Partnership (Website: http://www.cwhpin.ca/index.html)

HIP - Health Information Partnership, Eastern Ontario Region (Website: http://www.hip.on.ca)

NHIP - Northern Health Information Partnership (Website**:** http://www.nhip.org)

SRHIP - Southwest Region Health Information Partnership (Website: http://www.srhip.on.ca/srhip/index.htm).

LOS – 'Length of Stay' is the number of days of care for inpatient hospitalizations for residents of a given region

MOHL-TC – 'Ontario Ministry of Health and Long-term Care' (Website: http://www.health.gov.on.ca/index.html). The ministry, an agency of the Provincial Government of Ontario, Canada, is responsible for administering the health care system and providing services to the Ontario public through such programs as health insurance, drug benefits, assistive devices, care for the mentally ill, long-term care, home care, community and public health, and health promotion and disease prevention. It also regulates hospitals and nursing homes, operates psychiatric hospitals and medical laboratories, and co-ordinates emergency health services.

NASH - NASH is a classification system used by Ontario Coroners as a classification for deaths. It stands for: **N**atural Causes, **A**ccidental Death, **S**uicides, **H**omicides or **U**ndetermined.

OSDUS - Ontario Student Drug Use Survey is conducted by The Centre for Addiction and Mental Health - **CAMH**.

PHPDB – 'The Provincial Health Planning Database' provides information on the Provincial Health Planning Database (PHPDB), which is an information resource,

provided by the Health Planning Branch of the Ontario Ministry of Health, Canada. The site is accessible only through the GoNet at http://main.phpdb.moh.gov.on.ca.

PHU – A 'Public Health Unit' is an official health agency established by a group of urban and rural municipalities to provide a more efficient community health program, carried out by full-time, specially qualified staff.

There are 37 public health units in Ontario. Health units administer health promotion and disease prevention programs to inform the public about healthy life-styles, communicable disease control including education in STDs/AIDS, immunization, food premises inspection, healthy growth and development including parenting education, health education for all age groups and selected screening services.

RSC-N - Regional Supervising Coroner for Niagara

WHO – (Website: http://www.who.int/en/) 'The World Health Organization', the United Nations specialized agency for health, was established on 7 April 1948. WHO's objective, as set out in its Constitution, is the attainment by all peoples of the highest possible level of health. Health is defined in WHO's Constitution as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.