Youth'07

The Health and Wellbeing of Secondary School Students in New Zealand

Suicide Behaviours and Mental Health in 2001 and 2007

June 2010

THE UNIVERSITY OF AUCKLAND
FACULTY OF MEDICAL AND HEALTH SCIENCES

Title: Youth'07: The health and wellbeing of secondary school students in New Zealand: Suicide behaviours and mental health in 2001 and 2007.

ISBN 978-0-473-17292-3 (paperback)

ISBN 978-0-473-17293-0 (electronic)

To be referenced as:

Fortune, S., Watson, P., Robinson, E., Fleming, T., Merry, S., & Denny, S. (2010). *Youth'07: The health and wellbeing of secondary school students in New Zealand: Suicide behaviours and mental health in 2001 and 2007.* Auckland: The University of Auckland.

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Acknowledgements:

We would like to thank all of the students who participated in the survey and the schools who supported this project. Without your patience and help this study would not have been possible.

Thank you to the Youth'07 Project Team: Sue Grant, Ruth Herd, Taciano Milfont, S. Langitoto Helu, Catherine Jackson and Tania Milne.

We would also like to thank Ross Galbreath and Val Grey for their help in preparing this report.

The Youth'07 project was funded by the Health Research Council of New Zealand (grant 05/216), the Department of Labour, Families Commission, Accident Compensation Corporation of New Zealand, Sport and Recreation New Zealand, the Alcohol Advisory Council of New Zealand, and the Ministries of Youth Development, Justice, Health and Te Puni Kokiri. Support for the electronic communication of the Youth'07 project was provided by Vodafone New Zealand.

This report was commissioned and funded by Te Pou, the National Centre of Mental Health Research, Information and Workforce Development on behalf of the Ministry of Health.

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This report and further publications by the Adolescent Health Research Group are available at www.youth2000.ac.nz

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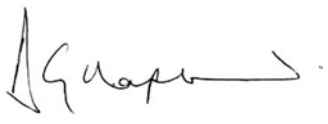
Foreword

The majority of young people in New Zealand enjoy positive wellbeing most of the time. Two national secondary school student surveys from The University of Auckland have provided a broad range of data that paints a mostly reassuringly healthy picture of today's youth. However, there are areas of considerable concern and this report is a timely reminder about the emotional distress and suicidal behaviours that some young people experience.

New Zealand experienced high rates of youth suicide in the 1990s and although these have reduced significantly there are still many youth suicide deaths every year. Suicide remains the second leading cause of death in this age group and New Zealand has higher rates than most other comparable countries. As a society we have taken this issue seriously at all levels and many suicide prevention efforts have been developed and implemented. As death by suicide is a relatively rare event the focus of prevention, identification and intervention has largely been on the more prevalent non-fatal suicide behaviours. Understanding the prevalence of suicide behaviours and the associated factors that either increase the risk of such behaviours or serve to protect young people from these negative factors is a daunting task. I am pleased that this task has been addressed at a population level by those who have undertaken the Youth2000 research and written this report. The report has been prepared in a style similar to the other Youth2000 reports which is purposefully accessible to a broad audience. This approach is helpful although undoubtedly the report raises many unanswered questions which will stimulate debate and further research.

The field of suicide prevention is vast and complex and the report plays an important part in our attempts to ensure that what we do is informed by current research-based evidence. This report will help support and guide planners and funders of services that directly or indirectly attempt to reduce suicide and the suicide-related behaviours of youth.

The Ministry thanks the students and schools who participated in the research. Be assured of the high value we place on your efforts and the information you have shared. The challenge of reducing suicide and suicide behaviours is great. However we have made some progress. My hope is that this report contributes to our continued focus on this important threat to the wellbeing of current and future generations of young New Zealanders.



David Chaplow
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Executive Summary

This report presents recent findings on the suicide behaviours and mental health of young people in New Zealand. The report is based on information from the Youth2000 surveys of the health and wellbeing of secondary school students that were conducted in 2001 and 2007. Each of these national surveys included a random sample of more than 9,000 students and are representative of young people attending mainstream secondary schools, but not necessarily all young people in New Zealand. The report focuses on findings from the 2007 survey with comparisons with those from the 2001 survey when appropriate.

Suicide behaviours

In 2007 the students' reports indicated that within the previous 12 months:

- 26.0% of female students and 6.1% of male students had deliberately hurt themselves or done something they knew may have harmed or even killed them.
- 19.4% of female students and 9.4% of male students had suicidal thoughts.
- 11.5% of female students and 6.1% of male students made suicide plans.
- 6.7% of female students and 2.9% of male students had attempted suicide.

Many young people who make a suicide attempt do so without spending much time thinking about it. Of the students who reported a suicide attempt, 21.5% did **not** report having serious suicidal thoughts.

Gender differences

- Suicide behaviours, self-harm, depression and mental health difficulties were all higher in females than males.

Ethnic differences

- Māori students were more likely than NZ European students to report suicidal thoughts (17.4% vs. 12.4%), suicide plans (11.1% vs. 7.4%) and suicide attempts (6.9% vs. 3.6%).
- Pacific students were more likely than NZ European students to report a suicide plan (10.8% vs. 7.4%) and suicide attempts (8.2% vs. 3.6%).
- Depressive symptoms were more common in Asian students (13.5%) than NZ European students (9.3%).

Socio-economic differences

- The proportion of students who reported exposure to suicide behaviour was higher among students from low socio-economic neighbourhoods (17.9%) than among students from high socio-economic neighbourhoods (12.3%).
- The proportion of students who reported suicide attempts was higher among students from low socio-economic neighbourhoods (6.8%) than among students from high socio-economic neighbourhoods (3.6%).

Suicide behaviours - changes from 2001 to 2007

- Suicide behaviours among secondary school students in New Zealand appear to have reduced. In 2001, *of those students who had suicidal thoughts in the last 12 months,* 4.7% of males and 10.5% of females reported making a suicide attempt; while in 2007, *of all students,* 2.9% of males and 6.7% of females reported making a suicide attempt in the last 12 months.
- Mental health of students appears to have improved: the proportion of male students reporting significant symptoms of depression decreased from 9.3% in 2001 to 6.9% in 2007 (females remained unchanged at around 15%).

Mental health

- 11.2% of female students and 7.6% of male students showed indications of an underlying mental health issue.
- 14.7% of female students and 6.9% of male students reported significant symptoms of depression.

Psychological wellbeing

- 50% of students had very good or excellent mental and emotional wellbeing, based on their scores on the WHO-5 Wellbeing Index.

Other issues associated with mental health

A number of risk and protective factors in the lives and circumstances of young people are known to be associated with mental health issues and suicide behaviours. This report looks at the prevalence of some of these factors from the 2007 survey:

- **Positive relationship with family:** 90.3% of students reported that at least one parent cared a lot about them.
- **Feeling safe at school:** 83.5% of students reported feeling safe at school all or most of the time.
- **Sexual abuse:** More than one in ten students (12.1%) reported some level of sexual abuse, with more female students (19.9%) than male students (5.4%) reporting sexual abuse.
- **High consumption of alcohol:** More than a third of students (34.3%) reported an episode of binge drinking in the previous month, with this proportion increasing dramatically with age.
- **Exposure to suicide:** 14.7% of students reported that someone among their friends or family had made a suicide attempt in the past 12 months.
- **Being bullied regularly:** 6.1% of students reported being bullied weekly or more often. Of these students, 8.8% of males and 21.5% of females reported making a suicide attempt in the last year - three times the reported rates among students who reported no bullying or infrequent bullying (2.5% of males and 5.9% of females).

Taken together, the results show that most young people in New Zealand have good mental health and wellbeing, and do not think about suicide or engage in any form of suicidal behaviour. However, these behaviours are not uncommon, especially among certain groups at particular risk: young women, young people from low socio-economic communities, those with substance abuse and mental health disorders, and those attracted to the same or both sexes.

Suicide behaviours are influenced by many factors – both the 'risk factors' that increase the likelihood that a young person will think about, plan or attempt suicide, and the 'protective factors' that decrease the likelihood of suicide behaviours.

Given the many factors involved, suicide prevention requires a range of different approaches to reduce the risk factors, enhance the protective factors, provide clinical services for young people suffering from depression and distress, and reduce access to means of suicide.

Introduction

Background

Many adolescents think about suicide or self-harm at some point in their lives. Some will act on these thoughts and a small minority will die, either intentionally or unintentionally. International data suggest that nearly 1 in 6 adolescents will consider self-harm or suicide in any year and 1 in 10 will harm themselves (Evans, Hawton, Rodham & Deeks, 2005). New Zealand continues to have high rates of youth suicide compared with other countries (Ministry of Health, 2008a). In New Zealand more young males die by suicide than young females (Ministry of Health, 2008a). In contrast more females engage in non-fatal suicidal behaviour (Ministry of Health, 2009). These differences are thought to reflect differences in the methods of self-harm used by males and females, although there is evidence that more violent methods may be increasing in females (Hawton & Fortune, 2008).

There is no single cause of suicidal behaviour; rather it can be viewed as the endpoint of adverse life events in which multiple risk factors combine to encourage the development of suicide behaviours (Hawton & Fortune, 2008). There are a number of comprehensive reviews of the research literature on risk factors associated with fatal and nonfatal suicide behaviours among children and adolescents (e.g. Beautrais, 2000; Bridge, Goldstein & Brent, 2006). Depression, sexual abuse, substance abuse, family breakdown and suicide behaviour by family and friends are all known to increase the risk of suicide behaviours among adolescents.

This report presents information from the Youth2000 surveys of secondary school students in New Zealand. The report focuses on suicide and self-harm behaviours, mental health, and some of the factors that have been shown in other studies to be related either to increased or to decreased risk of mental health difficulties and suicide behaviours. Results are presented from the 2007 survey and where possible compared with the corresponding results from the 2001 survey.

Sampling Framework

The Youth2000 national secondary school surveys aimed to provide information that is representative of most young people growing up in New Zealand. To achieve this, we randomly selected schools in New Zealand (from those with 50 or more students in years 9 to 14) and invited a random selection of students from these schools to take part. The surveys therefore did not include young people who were not in school.

In 2001, 114 (85.7%) of the 133 randomly selected schools took part in the Youth2000 survey. In total, 12,934 students from these schools were invited to participate in the survey. Three-quarters (9,699) agreed to take part.

In 2007, 96 (83.5%) of the 115 randomly selected schools took part in the Youth'07 survey. In total, 12,549 students from these schools were invited to participate in the survey. Again, three-quarters (9,107) agreed to take part. These numbers in 2001 and 2007 represent 3-4% of the total New Zealand secondary school rolls in these years.

The reasons that some of the students invited did not take part in the survey included: not being at school on the day of the survey, being unavailable during the time the survey was conducted, or not wanting to take part in the survey.

Ethical Procedures

Before we started each survey, its design was checked by The University of Auckland Human Subject Ethics Committee. This independent group of academics and community representatives scrutinized the methods and the questionnaires we used for conducting the survey. At each participating school, consent to carry out the survey was obtained from the principal. A few weeks before the survey was conducted, information materials about the survey were sent to each school for distribution to parents and students. They were assured that participation in the survey was voluntary and that all information collected would be anonymous and confidential. All participating students gave their own consent to being surveyed.

Survey Procedure

Data collection

In 2001 the survey was carried out using laptop computers and in 2007 using internet tablets – essentially hand-held computers. At the start of the survey students were given an anonymous code that enabled them to log-in to the questionnaire. The survey questions were displayed on the computer or internet tablet screen and also read out through headphones. Response options were also read out when the corresponding text on the screen was selected. In 2007 this 'voiceover' was available in both English and Māori languages, with students able to switch between the two at any time. Students could choose not to answer any question or section of the survey.

Before sensitive sections of the questionnaire, reminders were given that involvement in the survey was voluntary and that answers would remain confidential and anonymous. For questions thought to be potentially upsetting for students, 'safety' messages were added providing advice and contact details of people who students could talk to (including the people administering the survey).

The questionnaire covered important health and wellbeing topics as well as risk and protective factors that increase or decrease the likelihood of positive and negative outcomes for young people in New Zealand. The questionnaire contained a total of 523 questions in 2001 and 622 in 2007, but students answered fewer than this number due to the branching questionnaire design. This allowed for more in-depth questions in certain areas while limiting exposure to sensitive questions for students with no direct experience in these particular areas.

Urban /rural classification

During the 2007 survey students were asked to provide the address of their usual place of residence, from which their census Meshblock number was obtained. This was used to identify students who lived in urban or rural settings.

Socio-economic decile

For each student the decile rating of the school they attended was recorded. School decile ratings are calculated for each school by the Ministry of Education from census data for the school's 'catchment' area - the neighbourhoods it draws its students from. The Ministry of Education ranks schools according to the extent to which they draw their students from low socio-economic communities. Thus decile 1 is the 10% of schools with the highest proportion of students from low socio-economic communities and decile 10 is the 10% of schools with the lowest proportion of these students. In this report the school decile rating is used as a measure of the socio-economic status of the student's home neighbourhood. Students from schools with a decile rating of 8-10 are described as being from high socio-economic neighbourhoods, students from schools with a decile rating of 4-7 are described as being from medium socio-economic neighbourhoods and students from schools with a decile rating of 1-3 are described as being from low socio-economic neighbourhoods.

Ethnic Groups

Students who completed the surveys were asked which ethnic groups they belonged to. In the 2001 survey, when students indicated they belonged to several ethnic groups, the Statistics New Zealand prioritisation method (for discussion see Statistics New Zealand, 2009) was used to allocate them to a single ethnic group. In the 2007 survey this prioritisation method was not used; instead, when students indicated they belonged to several ethnic groups they were classified under each of them (Adolescent Health Research Group, 2008). For the purposes of this report, in order to be able to compare results with those from the 2001 survey, the 2007 ethnic classifications have been recalculated according to the prioritisation method. The results in this report for ethnic groups in 2007 therefore differ from those given in other reports on the 2007 survey.

In analysing the results, all 'Asian' ethnic groups and all 'Pacific' ethnic groups were combined under those categories. It should be noted, however, that by defining 'Asian' and 'Pacific' in this way as single categories, potentially important differences between the ethnic groups that make them up (e.g. Chinese and Indian, or Samoan and Tongan) may be averaged out. Readers are referred to the Youth'07 reports relating to Asian and Pacific students at www.youth2000.ac.nz for information relating to these groups.

Measuring Depressive Symptoms

The incidence of depressive symptoms was measured using RADS-SF, a shorter version of the Reynolds Adolescent Depression Scale (RADS) (Reynolds, 2004) designed as a brief measure of depressive symptoms among adolescents (Milfont et al., 2008). The RADS-SF contains 10 items with four Likert response options: almost never, hardly ever, sometimes, most of the time. The RADS-SF is scored in a similar way to the RADS with some questions being reverse scored. We assessed the use of RADS-SF using data from the 2001 survey which showed the RADS-SF has acceptable reliability and validity and has similar psychometric properties to the RADS (Milfont et al., 2008). A cut-off value of 28 rather than the suggested level of 26 was used to classify students with significant depressive symptoms. This was based on the analysis of 2001 survey data which showed a level of 28 best matched the cut-off level of the RADS and gave closer agreement in the percentage of students classified with significant levels of depressive symptoms (Milfont et al., 2008).

Measuring Strengths and Difficulties

The prevalence of mental health disorders was measured by the Strengths and Difficulties Questionnaire, SDQ, which is a brief emotional and behavioural screening questionnaire designed for use with children and adolescents. The SDQ has been widely used and validated internationally to screen for child and adolescent psychiatric disorders (Goodman, 2001).

The SDQ is divided into four difficulties scales and a pro-social scale. The difficulties or problem scales include emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems. The pro-social scale measures positive social behaviours towards others. There are five questions in each scale with three Likert response options: not true, somewhat true and certainly true. Scales are scored by summing together the items based on the scoring directions from Goodman (1997). Each scale ranges from 0 to 10 with higher scores indicating more difficulties. A total difficulties score is generated by summing the scores from all the scales except the pro-social scale, with a possible range from 0 to 40. Students whose scores are above the 90th percentile are likely to have an underlying mental health issue.

The 2007 survey used the self-report SDQ and impact supplement for 11 to 17 year olds and the project received permission to develop and use an electronic version of the questionnaire. The SDQ has not been validated for different ethnic groups in New Zealand.

Measuring Psychological Wellbeing

Psychological wellbeing was measured using the WHO-5 Wellbeing Index developed by the World Health Organisation (Henkel et al., 2004). The scale measures three underlying constructs: positive mood (good spirits, relaxation), vitality (being active and waking up fresh and rested), and general interests (being interested in things) (Bech, Gudex, & Staehr Johansen, 1996; Bech, Olsen, Kjoller, & Rasmussen, 2003).

Each of the five items is rated on a 6-point Likert scale from 0 (at no time) to 5 (all of the time) and are summed to get an overall score. This ranges from 0 to 25 with higher scores indicating better wellbeing. Students were classified with good, very good, and excellent mental or emotional wellbeing based on their WHO-5 score.

Comparisons Between the 2001 and 2007 Student Health Surveys

To allow for comparisons the 2001 and 2007 surveys followed similar methodologies with respect to sampling of schools, sampling of students, use of technology to enhance accuracy of reporting, and use of similar or identical questions and response items within the survey questionnaire. However, some changes were made in the questionnaire, which restricts the comparisons that can be made. In particular, the question on whether students had thought about suicide was altered in the 2007 survey: students were now asked whether they had "seriously" thought about suicide. The branching design of the questionnaire was also changed: in 2001 only those students who reported that they had thought about suicide were then asked further questions about suicide plans or suicide attempts, whereas in 2007 all students were asked these questions. These changes mean that direct comparisons of the prevalence of suicidal behaviours between 2001 and 2007 are not able to be made from these survey results.

Participating students were very similar in terms of age and year of schooling between the 2001 and 2007 surveys. However, there were differences with respect to the proportion of male and female students. In 2001 there were fewer male students than female students (46% vs. 54%). In 2007 these proportions were reversed, with more male students than female students (54% vs. 46%).

How to Interpret the Statistics

The Youth2000 surveys were designed to describe the health and wellbeing of students attending secondary schools in New Zealand. To this end, randomly selected schools and randomly selected students from these schools were invited to participate in the surveys. From the information obtained from the students who participated, estimations were made of the prevalence of various behaviours and risk factors in the New Zealand secondary school student population. How precise these estimates are is indicated by their 96% confidence intervals, which give the upper and lower limits between which we are relatively sure (ie 95% confident) that the true prevalence lies in the whole New Zealand secondary school student population. Wide confidence intervals indicate more uncertainty in the estimates. Note that all the confidence intervals in this report have been adjusted for the clustering of students within schools, which means that students from the same school are more alike than students from different schools (Murray, 1998).

In comparing the results for different genders, ages, ethnic groups, or socio-economic groups, if the confidence intervals around the two results being compared do not overlap, then the difference between them is likely to be real. Only such differences, with non-overlapping confidence intervals, have been reported in the text.

It is important not to place too much emphasis on apparent differences between groups, especially when the numbers of students reporting on specific issues are small. It should also be noted that these comparisons do not take into account other factors which may contribute to the differences.

Limitations to interpretation of data from the survey

The Youth2000 surveys are the largest surveys of the health and wellbeing of young people in New Zealand. They are of considerable importance for the purposes of planning and programme development for communities, schools and policy makers. However, when interpreting these results it is important to remember that only those students who were at school on the day of the survey were included, which has an impact on whether the findings reflect the wider youth population. Also, as the survey was carried out at a single time point, observed differences between groups of students cannot be used to infer a cause and effect relationship.

Results

Demographic Characteristics of Students

The overall sample target size in both 2001 and 2007 was 10,000 students. In 2001 9,546 students actually took part, of whom 46.1% were male. A third (33.0%) identified with more than one ethnic group, but were classified by the Statistics NZ prioritisation method into a single ethnic group. The demographic characteristics of the students who participated in the 2001 survey are given in the table below:

Demographic characteristics of students in the 2001 survey

		Male		Female		Total	
		n	%	n	%	n	%
Total		4402	46.1	5144	53.9	9546	100.0
By Age	13 or younger	971	22.1	1079	21.0	2050	21.5
	14	1083	24.6	1202	23.4	2285	23.9
	15	968	22.0	1210	23.5	2178	22.8
	16	787	17.9	938	18.2	1725	18.1
	17 or older	593	13.5	715	13.9	1308	13.7
	Total	4402	100.0	5144	100.0	9546	100.0
By Ethnicity	NZ European	2385	55.0	2834	55.7	5219	55.4
	Māori	1103	25.4	1237	24.3	2340	24.8
	Pacific	319	7.4	449	8.8	768	8.2
	Asian	317	7.3	362	7.1	679	7.2
	Other	210	4.8	207	4.1	417	4.4
	Total	4334	100.0	5089	100.0	9423	100.0
By Socio-economic Decile	High	1665	37.7	1889	36.7	3554	37.2
	Medium	2052	41.8	2493	59.5	4545	47.5
	Low	697	14.2	770	18.4	1467	15.3
	Total	4414	93.7	5152	114.6	9566	100.0

In the 2007 survey 9,107 students took part, of whom 54.0% were male. Forty percent reported they belonged to more than one ethnic group, but were classified by the Statistics NZ prioritisation method into a single ethnic group. Three quarters (76.0%) of students were born in New Zealand. The demographic characteristics of the students who participated in the 2007 survey are given in the table below:

Demographic characteristics of students in the 2007 survey

		Male		Female		Total	
		n	%	n	%	n	%
Total		4911	54.0	4187	46.0	9098	100.0
By Age	13 or younger	1031	21.0	828	19.8	1859	20.4
	14	1138	23.2	962	23.0	2100	23.1
	15	1083	22.1	890	21.3	1973	21.7
	16	928	18.9	815	19.5	1743	19.2
	17 or older	731	14.9	692	16.5	1423	15.6
	Total	4911	100.0	4187	100.0	9098	100.0
By Ethnicity	NZ European	2631	53.7	2166	51.8	4797	52.8
	Māori	882	18.0	820	19.6	1702	18.7
	Pacific	497	10.1	427	10.2	924	10.2
	Asian	619	12.6	507	12.1	1126	12.4
	Other	273	5.6	258	6.2	531	5.8
	Total	4902	100.0	4178	100.0	9080	100.0
By Socio-economic Decile	High	1794	36.5	1636	39.1	3430	37.7
	Medium	2354	47.9	2018	48.2	4372	48.1
	Low	763	15.5	533	12.7	1296	14.2
	Total	4911	100.0	4187	100.0	9098	100.0
By Geography	Urban	4049	84.5	3397	83.5	7446	84.0
	Rural	744	15.5	670	16.5	1414	16.0
	Total	4793	100.0	4067	100.0	8860	100.0

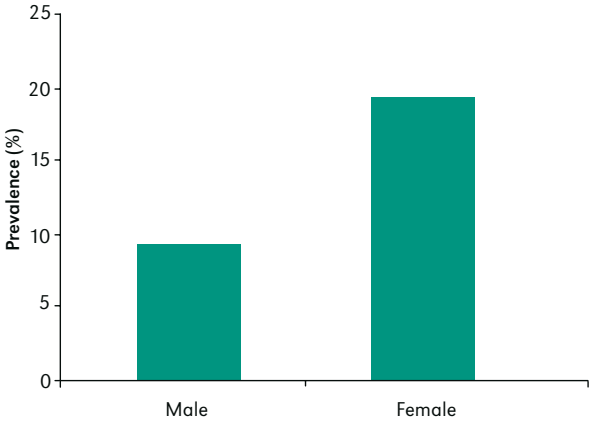
Suicide Behaviours

Serious suicidal thoughts

In the 2007 survey students were asked "in the last 12 months have you seriously thought about killing yourself (attempting suicide)?"

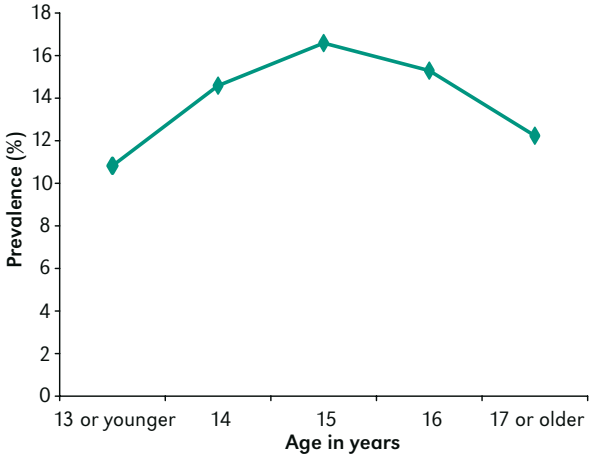
Overall, in 2007 one in seven students (14.0%) reported having serious suicidal thoughts in the previous 12 months. Females (19.4%) were twice as likely to report suicidal thoughts as males (9.4%).

Prevalence of serious suicidal thoughts among students in the last 12 months (2007)



The proportion of young people reporting suicidal thoughts varied with age. More students aged 15 years reported suicidal thoughts (16.6%) than younger students (students 13 years or younger, 10.8%) or older students (17 years and older, 12.2%). However, it should be noted that students who remain in school until they are 17 or 18 will often have better health status than their peers who left school at the leaving age of 16. This may in part explain the fact that the proportion of 17 year old students who reported suicidal thoughts was lower than would be found in a general population survey, in which the prevalence of suicidal thoughts tends to increase with age.

Serious suicidal thoughts in the last 12 months, by age (2007)



A greater proportion of Māori students (17.4%) reported suicidal thoughts compared with NZ European students (12.4%). The proportion of students who reported serious thoughts about suicide did not vary between other ethnic groups, socio-economic deciles or urban and rural areas.

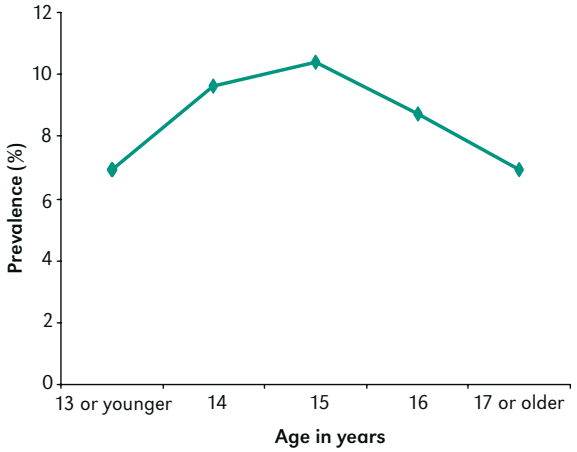
This question was asked in a different way in the 2001 survey and thus direct comparisons of the prevalence of suicidal thoughts between 2001 and 2007 are not able to be made.

Suicide plans - 2007

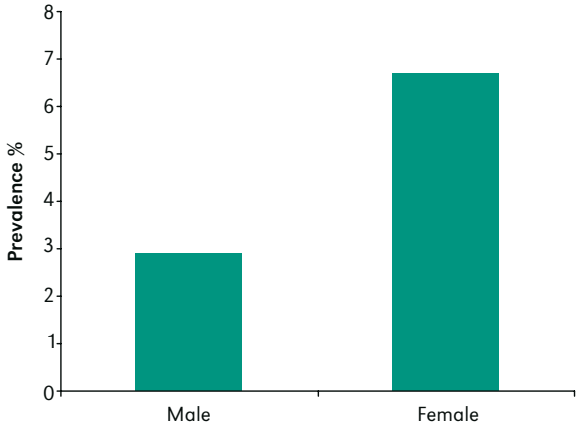
Students were also asked "in the last 12 months have you made a plan about how you would kill yourself (attempt suicide)?"

In 2007, 8.6% of students reported they had made a suicide plan within the previous year. As with suicidal thoughts, females (11.5%) were nearly twice as likely as males (6.1%) to report suicide plans. More 15 year old students (10.4%) reported plans than the youngest (6.9%) and oldest students (6.9%). It must be remembered, however, that this age group in the sample is less representative of the whole population of young people than the younger age groups as it does not include those who leave school as soon as they reach the leaving age of 16. Therefore, the pattern of decline in suicide planning at ages 16 and above may not represent that in the wider population.

Suicide plans in the last 12 months, by age (2007)



Prevalence of attempted suicide among students (2007)



The proportion of Māori (11.1%) and Pacific students (10.8%) who reported a suicide plan was greater than the proportion of NZ European students (7.4%) who reported a suicide plan.

The proportion of students reporting a suicide plan was similar among students from different socio-economic deciles and from urban and rural areas.

2001 – 2007 comparison of suicide plans

The results suggest that the proportion of all students who made a suicide plan decreased from 2001 to 2007, but we are unable to draw a definite conclusion on this because of changes in the branching of the questionnaire. In 2001 only those students who reported that they had thought about suicide were then asked further questions about suicide plans or suicide attempts, but in 2007 all students were asked this question. In 2001, 10.0% of the students who reported suicidal thoughts also reported making a suicide plan. In 2007 8.6% of all students reported making a suicide plan.

Suicide attempts - 2007

About one in twenty students (4.7%) reported that they had tried to kill themselves (attempted suicide) within the previous 12 months. As with thoughts and plans, a higher proportion of female students (6.7%) than males (2.9%) reported suicide attempts.

Attempted suicide was less commonly reported by the 17 and older age group. Again it must be remembered that this age group in the sample is less representative of the whole population of young people than the younger age groups. This is because it does not include those who leave school as soon as they reach the leaving age of 16.

The proportion of Pacific students (8.2%) and Māori students (6.9%) who reported that they had made a suicide attempt in the past 12 months was greater than the proportion of NZ European students (3.6%). A higher proportion of students from low socio-economic neighbourhoods reported suicide attempts (6.8%) than students from high socio-economic neighbourhoods (3.6%) but the proportions were similar between rural and urban areas.

Another group that is particularly vulnerable are students who are attracted to the same sex or to both sexes. These students show much higher levels of significant depressive symptoms, self-harm and suicide behaviours than those who are attracted to the opposite sex (Rossen, Lucassen, Denny & Robinson, 2009). Analysis of the 2007 survey results showed that students who were attracted to the same sex or to both sexes were much more likely to report a suicide attempt (20.0%) in the past 12 months than students who were attracted to the opposite sex (4.0%).

For more information see the report on young people attracted to same sex or both sexes. The report can be downloaded from www.youth2000.ac.nz

2001 – 2007 comparison of suicide attempts

In 2001 only those students who reported that they had thought about suicide were then asked further questions about suicide plans or suicide attempts, but in 2007 all students were asked whether they had made a suicide attempt. This change in the questionnaire means that no straightforward comparison of rates of suicide attempts in 2001 and 2007 can be made. In 2001 7.8% of the students who reported suicidal thoughts also reported making a suicide attempt within the previous 12 months. In 2007 4.7% of all students reported they had made a suicide attempt within the previous 12 months.

Suicidal thoughts and suicide attempts

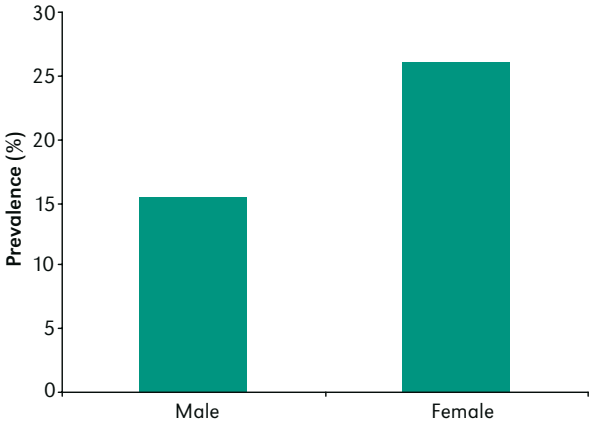
Analysis of the 2007 data indicates that, of those students who reported making a suicide attempt, nearly one quarter of them (21.5%) did not also report having serious suicidal thoughts. These students evidently proceeded to a suicide attempt impulsively, without having any suicidal thoughts before or after it. The proportion of students reporting a suicide attempt in the absence of serious suicidal thoughts increased with age, from 17.9% of the 13 year olds who reported a suicide attempt to 27.5% of the 16 year olds and 32.4% of those 17 years and older who reported a suicide attempt. Suicide attempts without suicidal thoughts were more common among Asian students (43.2% of those reporting suicide attempts) than among NZ European students (17.0% of those reporting a suicide attempt).

Self-harm

Students were asked whether, within the previous 12 months, they had deliberately hurt themselves or done anything they knew may have harmed them or even killed them.

In 2007 one in five students (20.3%) reported that they had deliberately harmed themselves. Female students (26.0%) were more likely than males (15.5%) to report self-harm. The proportion of Māori students (25.3%) who reported self-harm was greater than the proportion of NZ European students (19.4%) who reported self-harm. The proportion of students aged 13 or younger (16.7%) who reported self-harm was lower than the proportion of those aged 14, 15 or 16 years (23.1%, 24.1% and 21.1% respectively). The proportion of students aged 17 or more (14.9%) who reported self-harm was also lower than among the younger ages, but again it must be noted that little can be drawn from this, given that the students who remain in school until they are 17 or 18 may differ from those who left at the leaving age of 16. The proportion of students who reported self-harm was relatively similar across other ethnic groups, urban or rural localities, and socio-economic deciles.

Prevalence of self-harm among students (2007)



Mental Health Issues

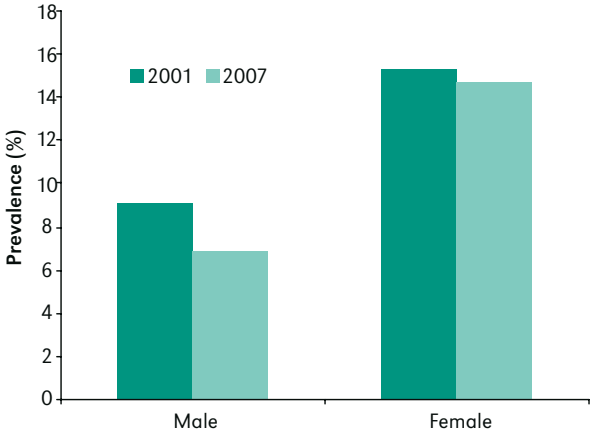
Mood disorders such as depression are associated with an increased risk of later developing suicide thoughts and self-harm (Fergusson, Horwood, Ridder & Beautrais, 2005). The incidence of depressive symptoms and mental health disorders were measured by the Reynolds Adolescent Depression Scale – Short Form (RADS-SF), and the Strengths and Difficulties Questionnaire (SDQ).

Depressive disorders

In 2007 just over one in ten (10.6%) students reported significant depressive symptoms on the RADS-SF questionnaire. Females were more likely to report depressive symptoms (14.7 %) compared with males (6.9%). A greater proportion of Asian students (13.5%) than NZ European students (9.3%) reported significant depressive symptoms. The proportion of students with a significant number of depressive symptoms did not vary significantly across students of different ages, socio-economic deciles and urban or rural localities.

Overall, the proportion of students reporting significant depressive symptoms decreased from 12.4% in 2001 to 10.6% in 2007.

Prevalence of significant depressive symptoms among students (2001 & 2007)



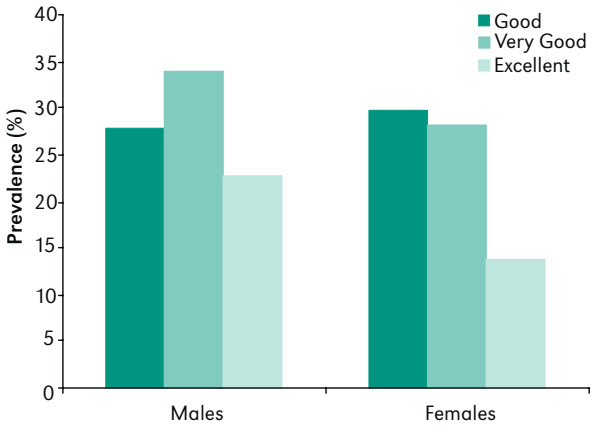
Underlying mental health issues

In 2007 just under one in ten students (9.3%) had SDQ scores above the 90th percentile, consistent with an underlying mental health issue. A greater proportion of female students (11.2%) than male students (7.6%) indicated an underlying mental health issue. A greater proportion of Māori students (11.7%) than NZ European students (8.1%) indicated an underlying mental health issue.

Psychological Wellbeing

In the 2007 survey, nearly half of all students (49.9%) had WHO-5 scores indicating either very good or excellent mental and emotional wellbeing. A higher proportion of males (56.5%) than females (42.2%) had scores which indicated very good or excellent wellbeing.

Mental and emotional wellbeing of students (2007)



Paradoxically, the proportion of students who had very good or excellent mental and emotional wellbeing was actually lower among those from high socio-economic neighbourhoods (46.8%) than those from low socio-economic neighbourhoods (58.5%).

Other Issues Related to Mental Health and Suicide Behaviours

There are a number of factors that researchers have found to be associated with mental health issues and suicide behaviours. For example, factors that increase the risk of mental health problems include: physical and sexual abuse, neglect, substance-use issues, family dysfunction and bullying (Evans, Hawton & Rodham, 2004). Factors that decrease the risk of mental illness and suicide behaviours include: good social skills, problem-solving abilities, an internal locus of control (Merry, McDowell, Hetrick, Bir, & Muller, 2004), positive engagement with school (Pharris, Resnick & Blum, 1997) and family cohesiveness (Rubenstein, Halton, Kasten, Rubin & Stechler, 1998). This next section summarizes the prevalence of some of these factors from the 2001 and 2007 surveys.

Positive relationships with family

The majority of students reported positive relationships with family and school. In 2001 92.7% of students reported that at least one parent cared a lot about them. This proportion declined slightly to 90.3% in 2007. In both 2001 and 2007 a higher proportion of students from high socio-economic neighbourhoods (94.3% in 2001 and 91.7% in 2007) than from low socio-economic neighbourhoods (90.9% in 2001 and 87.1% in 2007) reported that at least one parent cared a lot about them. There were no differences in 2001 or in 2007 in the proportion of students who reported that at least one parent cared about them a lot between students of different ages, genders, or rural and urban areas.

Feeling safe at school

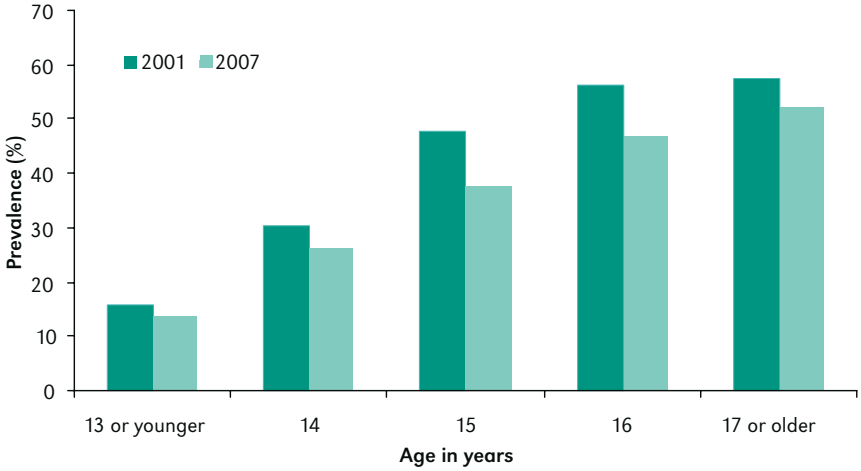
Most students reported that they felt safe at school all or most of the time: 78.1% of students in 2001 increasing to 83.5% in 2007. The proportion of students who reported feeling safe at school increased with age in both 2001 and 2007.

Similar proportions of male and female students reported feeling safe at school and there were no differences in the proportions between rural and urban areas. However, a higher proportion of students from high socio-economic neighbourhoods (83.7% in 2001 and 87.8% in 2007) than from low socio-economic neighbourhoods (66.6% in 2001 and 80.2% in 2007) reported feeling safe in their schools.

Alcohol use

Alcohol consumption, particularly high alcohol consumption, is associated with an increased risk of suicidal thoughts and suicide attempts (Evans, Hawton & Rodham, 2004). Up to one third of young people presenting to hospital following an episode of deliberate self-harm have consumed alcohol around the time of the act (Hawton et al., 2003), and alcohol abuse is also associated with increased rates of repetition of self-harm (Vajda & Steinbeck, 2000).

Prevalence of binge drinking among students, by age (2001 & 2007)



Although no analysis of the association with suicide behaviours has been done on the data from the 2001 and 2007 surveys, significant numbers of students reported high alcohol consumption, especially binge drinking (5 or more drinks within a 4 hour drinking session). In 2007, 71.6% of students reported they had consumed alcohol at some time and 60.6% reported they were current drinkers of alcohol (Adolescent Health Research Group, 2008). More than one third of all students (34.3%) had engaged in an episode of binge drinking in the previous four weeks.

The proportion of students who binge drink rose dramatically with increasing age, from 13.5% of 13 year olds to 37.7% of 15 year olds and 52.1% of those 17 years and older. The proportion of students from rural areas who reported binge drinking (41.9%) was greater than the proportion from urban areas (32.8%). The proportion of students who reported binge drinking was similar across all socio-economic deciles.

The overall proportion of students reporting binge drinking declined from 39.8% in 2001 to 34.3% in 2007.

More detailed analysis of this data is available in the Youth'07 technical report. The report can be downloaded from www.youth2000.ac.nz

Sexual abuse

Sexual abuse has been shown to increase the risk of a young person engaging in suicide behaviour (Evans et al., 2004). Although no analysis of the association with suicide behaviours has been done on the data from the 2001 and 2007 surveys, significant numbers of students – 18.3% in 2001 declining to 12.1% in 2007 - reported that they had been touched in a sexual way or made to do sexual things which they had not wanted. Female students (19.9% in 2007) were significantly more likely to report these experiences than male students (5.4%). A higher proportion of students from low socio-economic neighbourhoods (15.6% in 2007) than from high socio-economic neighbourhoods (11.1%) reported unwanted sexual experiences.

Exposure to suicide attempts among friends and family

Suicide behaviour appears to be more common in some families (Brent, Bridge, Johnson & Connolly, 1996). Young people may copy suicide behaviour from others (Gould, 2001).

Although no analysis of the association with suicide behaviours has been done on the data from the 2001 and 2007 surveys, significant numbers of students reported exposure to suicide attempts. In 2001, 16.9% of students reported there had been a suicide attempt among their friends or family. In 2007, the proportion was not significantly different (14.7%). Female students were nearly twice as likely to report exposure to suicide attempts as male students (in 2007 19.8% vs. 10.2%). Students from different ethnic groups reported differences in their exposure to suicide attempts among friends and family. Compared to the proportion of NZ European students who reported exposure to suicide attempts (13.9%), the proportion of Asian students was lower (6.8%), while the proportion of Māori students was higher (21.5%).

A higher proportion of students from low socio-economic neighbourhoods (17.9%) than from high socio-economic neighbourhoods (12.3%) reported exposure to suicide attempts.

Being bullied

Bullying is a common experience for young people, but for some it is a regular occurrence which can negatively impact on their mental health and wellbeing. In the 2007 survey, 6.1% of students reported that they were bullied at school one or more times a week. This was reported more often by male students (7.1%) than female students (5.0%) (Adolescent Health Research Group, 2008).

Clark et al., (2009), in their analysis of the 2007 survey results, showed that being bullied is associated with much higher levels of depressive symptoms and suicide attempts:

- Among the students who had not been bullied at school or bullied infrequently, 5.8% of males and 12.8% of females showed significant depressive symptoms. But among the students who had been bullied at school weekly or more often, these figures were nearly four times higher: 21.4% of males and 51.8% of females who had been bullied weekly showed significant depressive symptoms.
- Among students who had not been bullied at school, or bullied infrequently, 2.5% of males and 5.9% of females reported making a suicide attempt within the previous 12 months. But among students who had been bullied at school weekly or more often, these figures were over three times higher: 8.8% of males and 21.5% of females who had been bullied weekly reported making a suicide attempt within the previous 12 months.

For more information see the Youth'07 report on young people and violence. The report can be downloaded from www.youth2000.ac.nz

Accessing Professional Healthcare Services

Many young people who have emotional difficulties do not seek help for their problems. If they do, it is most likely to be from friends and family rather than professionals (De Leo & Heller, 2004; Evans, Hawton & Rodham, 2005).

In 2007, 16.5% of students reported that they had seen a health professional for emotional health worries within the previous 12 months. A higher proportion of female students (22.3%) than male students (11.5%) reported accessing health services for emotional worries. Students of different ages, socio-economic deciles, and urban or rural localities have similar rates of seeing a health professional for emotional worries.

A higher proportion of Māori students (20.2%) than NZ European students (14.8%) reported that they had seen a health professional for emotional worries within the past 12 months.

Conclusion and Recommendations

As the results in this report make clear, most young people in New Zealand have good mental health and wellbeing, and do not think about suicide or engage in any form of suicidal behaviour. However, these behaviours are not uncommon, especially among certain groups at particular risk:

- Young women
- Young people from low socio-economic communities
- Young people who abuse drugs and alcohol
- Young people with depression or mental health disorders
- Young people attracted to the same or both sexes

Many young people will think about suicide at some time and never proceed to any further suicidal behaviour. However, some young people make a suicide attempt impulsively, without spending much time thinking about it. In the 2007 survey nearly a quarter of those students who reported a suicide attempt in 2007 **did not** report serious suicide thoughts.

In light of this finding, suicide prevention strategies such as enhancing problem-solving skills among young people and reducing access to means of suicide are important.

It is clear that suicide behaviours are influenced by many factors – both those that increase the likelihood that a young person will think about, plan or attempt suicide ('risk factors'); and those that decrease the likelihood of suicide behaviours ('protective factors').

Risk factors include:

- Mental health disorders
- Mood disorders such as depression
- Substance abuse – including high alcohol consumption
- Bullying
- Sexual abuse
- Family dysfunction and distress
- Exposure to suicide attempts among friends and family

Protective factors include:

- Mental and emotional wellbeing
- Good social skills
- Problem-solving abilities
- Positive engagement with school
- Family cohesiveness

Given the many factors involved, suicide prevention requires a range of different approaches. New Zealand has a number of policy documents to inform suicide prevention – see the National Suicide Prevention Strategy (Associate Minister of Health, 2006) and the New Zealand Suicide Prevention Action Plan (Ministry of Health, 2008b).

In brief, interventions should aim to:

- Reduce the risk factors for suicide
- Enhance the protective factors
- Provide clinical services for people suffering from mental health and substance use disorders
- Reduce access to means of suicide

Recommendations

For schools, communities and families:

- Provide safe and supportive environments for all young people and especially those from the at-risk groups.
- Take any threat of suicide seriously and get professional advice for any young person considering suicide. However, be aware that it may be difficult for them to be seen by mental health services. You may need to seek advice from a school guidance counsellor or a GP in the first instance.
- Ensure that young people who are down or depressed receive the support they need to deal with their difficulties and concerns.
- Schools and community organisations should have a policy for following up incidents involving suicide or suicide behaviour.

For health services that provide care for young people:

- Ensure your service is accessible to young people.
- Ensure your providers have the necessary knowledge and skills to engage with young people and make good assessments of their emotional health.
- Ensure your service has plans and procedures to effectively manage young people who disclose suicidal behaviours.

For mental health services and providers of suicide prevention services:

- Ensure your service is accessible for young people, particularly those at higher risk of suicide.
- Ensure that everyone approaching your service with concerns about the safety of young people get help or helpful information, even if the case is not of sufficiently high risk to be seen by your team.

For policy-makers:

- Ensure that clear evidence-based guidelines are available to guide suicide prevention activities.
- Ensure that communities are able to access advice or help for young people who are distressed or suicidal, either from mental health services if they meet their criteria, or if not, from other agencies.
- One of the most important factors which support the healthy emotional development of young people is having at least one parent who cares a lot about them. Young people need the support of adults in their families and government policies should be family-friendly across all areas of government activity.

Useful Links for Youth Mental Health

General Health and Wellbeing

Health Information & Support for Young People	www. youthline.co.nz
Youth2000 – Youth Health Information and Statistics	www.youth2000.ac.nz

Emotional Wellbeing and Mental Health

Mental Health Foundation Education Packages for Schools Coping with Depression	www.mentalhealth.org.nz
The Lowdown – For Young People with Depression	www.thelowdown.co.nz
Suicide Prevention	www.spinz.org.nz
Coping with Grief	www.skylight.org.nz
Violence Prevention	www.nzviolenceprevention.org.nz

Young People Attracted to the Same Sex or Both Sexes

Advocacy and Support (Auckland)	www.rainbowyouth.org.nz
Telephone Counselling, Advice and Referral (Nationwide)	www.gayline.org.nz
Advocacy and Support Nationwide	www.outthere.org.nz
Making Schools Safe for People of Every Sexuality – PPTA Guidelines	www.outthere.org.nz

New Zealand Suicide Prevention

New Zealand Suicide Prevention Strategy. Youth Suicide Prevention in Schools: A practical guide (2003).	www.moh.govt.nz/moh
New Zealand Suicide Prevention Action Plan 2008-2012	www.moh.govt.nz/moh

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Tables of Results

In these tables n = the number of students who answered the question

Suicidal thoughts (2007)

		Serious thoughts of suicide in the last 12 months	
		n	% (95% CI)
Total		8719	14.0 13.0 - 15.1
By Gender	Male	4668	9.4 8.6 - 10.2
	Female	4051	19.4 18.0 - 20.9
By Age	13 or younger	1778	10.8 9.3 - 12.3
	14	2007	14.6 12.7 - 16.5
	15	1899	16.6 14.8 - 18.4
	16	1671	15.3 13.6 - 16.9
	17 or older	1364	12.2 10.2 - 14.3
By Ethnicity	NZ European	4634	12.4 11.3 - 13.5
	Māori	1628	17.4 15.0 - 19.8
	Pacific	844	15.9 12.8 - 18.9
	Asian	1095	14.2 12.3 - 16.1
	Other	511	14.0 10.8 - 17.2
By Socio-economic Decile	High	3270	13.0 11.6 - 14.4
	Medium	4231	14.5 13.1 - 15.8
	Low	1218	15.3 11.7 - 18.8
By Geography	Urban	7249	14.4 13.3 - 15.6
	Rural	1386	11.5 9.6 - 13.5

Suicide plans (2007)

		Made suicide plans in the last 12 months	
		n	% (95% CI)
Total		8718	8.6 7.8 - 9.4
By Gender	Male	4669	6.1 5.4 - 6.8
	Female	4049	11.5 10.4 - 12.7
By Age	13 or younger	1778	6.9 5.8 - 7.9
	14	2006	9.6 8.0 - 11.1
	15	1899	10.4 9.0 - 11.8
	16	1672	8.7 7.1 - 10.3
	17 or older	1363	6.9 5.4 - 8.4
By Ethnicity	NZ European	4634	7.4 6.5 - 8.2
	Māori	1629	11.1 9.5 - 12.8
	Pacific	843	10.8 8.6 - 13.1
	Asian	1094	7.6 6.0 - 9.3
	Other	511	10.1 7.4 - 12.8
By Socio-economic Decile	High	3269	7.4 6.2 - 8.5
	Medium	4231	9.2 8.3 - 10.1
	Low	1218	10.0 7.8 - 12.1
By Geography	Urban	7248	8.9 8.0 - 9.8
	Rural	1,386	6.9 5.6 - 8.2

Suicide plans (2001)

(In 2001 only those students who reported they had thought about suicide were asked this question).

		Made a suicide plan in the last 12 months	
		n	% (95% CI)
Total		9385	10.0 9.1 - 10.9
By Gender	Male	4308	7.0 6.2 - 7.8
	Female	5077	12.6 11.3 - 13.8
By Age	13 or younger	2006	8.8 7.5 - 10.2
	14	2245	9.7 8.1 - 11.3
	15	2129	12.4 10.8 - 14.0
	16	1709	10.2 8.4 - 12.1
	17 or older	1280	8.0 6.5 - 9.5
By Ethnicity	NZ European	5185	8.6 7.6 - 9.5
	Māori	2303	13.8 12.1 - 15.4
	Pacific	737	12.1 8.9 - 15.2
	Asian	668	6.5 3.6 - 9.4
	Other	408	8.3 5.0 - 11.7
By Socio-economic Decile	High	3510	9.4 8.2 - 10.6
	Medium	4472	9.4 8.2 - 10.7
	Low	1403	13.3 11.2 - 15.5

Suicide attempts (2007)

		Attempted suicide in the past 12 months	
		n	% (95% CI)
Total		8715	4.7 4.1 - 5.3
By Gender	Male	4666	2.9 2.4 - 3.5
	Female	4049	6.7 5.9 - 7.5
By Age	13 or younger	1777	4.5 3.5 - 5.5
	14	2006	5.3 4.2 - 6.5
	15	1898	5.8 4.7 - 6.9
	16	1672	4.1 3.1 - 5.1
	17 or older	1362	3.1 2.2 - 4.1
By Ethnicity	NZ European	4635	3.6 3.0 - 4.2
	Māori	1628	6.9 5.6 - 8.2
	Pacific	842	8.2 6.4 - 10.1
	Asian	1092	3.2 2.2 - 4.3
	Other	511	4.3 2.7 - 5.9
By Socio-economic Decile	High	3271	3.6 2.9 - 4.4
	Medium	4227	4.9 4.2 - 5.6
	Low	1217	6.8 5.2 - 8.4
By Geography	Urban	7246	4.8 4.2 - 5.5
	Rural	1385	3.7 2.6 - 4.7

Suicide attempts (2001)

(In 2001 only those students who reported they had thought about suicide were asked this question).

		Attempted suicide in the past 12 months	
		n	% (95% CI)
Total		9387	7.8 7.0 - 8.7
By Gender	Male	4310	4.7 3.9 - 5.6
	Female	5077	10.5 9.3 - 11.8
By Age	13 or younger	2008	7.8 6.3 - 9.2
	14	2245	8.4 6.9 - 9.8
	15	2129	10.5 8.8 - 12.1
	16	1709	7.3 5.8 - 8.8
	17 or older	1280	3.5 2.4 - 4.5
By Ethnicity	NZ European	5187	5.8 4.9 - 6.6
	Māori	2303	11.9 10.2 - 13.6
	Pacific	737	11.7 8.9 - 14.4
	Asian	668	5.7 3.8 - 7.5
	Other	408	6.9 4.3 - 9.4
By Socio-economic Decile	High	3510	6.0 4.9 - 7.1
	Medium	4474	7.5 6.5 - 8.4
	Low	1403	13.4 10.8 - 16.1

Self-harm (2007)

		Deliberate self-harm in the past 12 months	
		n	% (95% CI)
Total		8752	20.3 18.9 - 21.8
By Gender	Male	4698	15.5 14.1 - 16.8
	Female	4054	26.0 24.4 - 27.6
By Age	13 or younger	1780	16.7 14.8 - 18.6
	14	2014	23.1 20.8 - 25.4
	15	1910	24.1 21.7 - 26.5
	16	1676	21.1 18.9 - 23.3
	17 or older	1372	14.9 12.8 - 17.0
By Ethnicity	NZ European	4645	19.4 17.9 - 20.8
	Māori	1639	25.3 22.8 - 27.7
	Pacific	854	20.6 17.5 - 23.6
	Asian	1094	15.7 12.9 - 18.4
	Other	513	22.9 19.6 - 26.3
By Socio-economic Decile	High	3280	18.6 16.0 - 21.2
	Medium	4244	21.5 19.8 - 23.2
	Low	1228	21.1 18.3 - 24.0
By Geography	Urban	7277	20.7 19.1 - 22.3
	Rural	1389	18.7 16.6 - 20.8

Significant depressive symptoms (2001)

(based on RADS-SF scores)

		Shows significant depressive symptoms	
		n	% (95% CI
Total		9247	12.4 11.5 - 13.3
By Gender	Male	1139	9.1 8.1 - 10.1
	Female	4237	15.3 14.1 - 16.4
By Age	13 or younger	1976	11.0 9.3 - 12.7
	14	2209	11.9 10.6 - 13.3
	15	2099	15.1 13.1 - 17.1
	16	1684	13.0 11.3 - 14.8
	17 or older	1268	10.2 8.4 - 12.1
By Ethnicity	NZ European	5138	10.3 9.2 - 11.3
	Māori	2251	14.9 13.5 - 16.3
	Pacific	719	17.1 14.3 - 20.0
	Asian	655	13.5 11.5 - 15.5
	Other	400	14.9 10.2 - 19.5
By Socio-economic Decile	High	3476	10.9 9.6 - 12.2
	Medium	4410	12.5 11.3 - 13.8
	Low	1361	15.5 13.1 - 18.0

Significant depressive symptoms (2007)

(based on RADS-SF scores)

		Shows significant depressive symptoms	
		n	% (95% CI)
Total		8571	10.6 9.7 - 11.4
By Gender	Male	4589	6.9 6.3 - 7.6
	Female	3982	14.7 13.7 - 15.8
By Age	13 or younger	1736	8.8 7.5 - 10.1
	14	1966	11.9 10.1 - 13.6
	15	1872	12.0 10.6 - 13.4
	16	1658	10.2 8.7 - 11.6
	17 or older	1339	9.3 7.5 - 11.1
By Ethnicity	NZ European	4578	9.3 8.3 - 10.3
	Māori	1587	10.6 9.0 - 12.2
	Pacific	817	9.7 7.9 - 11.6
	Asian	1080	13.5 11.0 - 15.9
	Other	502	16.0 12.8 - 19.3
By Socio-economic Decile	High	3236	10.0 8.5 - 11.6
	Medium	4160	10.9 9.8 - 12.1
	Low	1175	10.7 8.4 - 12.9
By Geography	Urban	7122	10.8 9.9 - 11.8
	Rural	1367	8.8 7.2 - 10.5

Mental health difficulties (2007)

(Based on SDQ score above the 90th percentile).

		Shows signs of mental health difficulty	
		n	% (95% CI)
Total		8670	9.3 8.5 - 10
By Gender	Male	4642	7.6 6.7 - 8.5
	Female	4028	11.2 10.3 - 12.1
By Age	13 or younger	1769	8.5 7.1 - 0.0
	14	1981	11.8 10.1 - 13.5
	15	1891	9.5 8.2 - 10.9
	16	1665	8.9 7.2 - 10.5
	17 or older	1364	6.6 5.2 - 7.9
By Ethnicity	NZ European	4609	8.1 7.2 - 9.1
	Maori	1620	11.7 10.1 - 13.2
	Pacific	845	9.4 7.9 - 10.9
	Asian	1085	9.9 7.9 - 12.0
	Other	504	10.0 6.9 - 13.0
By Socio-economic Decile	High	2944	8.2 7.0 - 9.4
	Medium	4197	10.2 9.3 - 11.2
	Low	1221	9.5 8.3 - 10.8

Psychological wellbeing (2007)

(based on scores on the WHO–5 Wellbeing Scale)

		Good WHO-5 score 13-17		Very Good WHO-5 score 17-21		Excellent WHO-5 score 21-26	
		n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Total		8679	28.7 27.3 - 30.0	8679	31.3 30.1 - 32.5	8679	18.6 17.1 - 20.0
By Gender	Male	4656	27.7 25.8 - 29.6	4656	33.9 32.4 - 35.3	4656	22.6 20.4 - 24.8
	Female	4023	29.7 28.0 - 31.5	4023	28.3 26.8 - 29.8	4023	13.9 12.4 - 15.4
By Age	13 or younger	1768	24.6 22.5 - 26.7	1768	35.6 33.1 - 38.1	1768	24.7 22.2 - 27.2
	14	1978	27.2 24.8 - 29.5	1978	30.2 28.3 - 32.1	1978	21.7 19.7 - 23.7
	15	1897	30.0 27.6 - 32.3	1897	29.2 27.2 - 31.1	1897	16.7 14.7 - 18.7
	16	1667	30.7 28.5 - 33.0	1667	30.6 28.2 - 33.0	1667	15.1 13.1 - 17.0
	17 or older	1369	31.6 29.1 - 34.2	1369	31.0 28.0 - 34.0	1369	13.2 11.2 - 15.2
By Ethnicity	NZ European	4614	29.9 28.7 - 31.1	4614	33.4 32.1 - 34.8	4614	16.0 14.7 - 17.2
	Māori	1614	28.6 26.4 - 30.9	1614	28.4 26.5 - 30.3	1614	21.2 18.8 - 23.7
	Pacific	850	19.4 16.5 - 22.3	850	31.1 27.8 - 34.3	850	32.0 28.0 - 36.0
	Asian	1086	31.9 29.0 - 34.7	1086	27.8 25.0 - 30.5	1086	15.5 13.1 - 17.9
	Other	508	26.2 22.0 - 30.5	508	29.2 25.1 - 33.3	508	17.7 14.3 - 21.1
By Socio-economic Decile	High	3259	30.8 29.1 - 32.5	3259	31.8 29.8 - 33.7	3259	15.0 13.4 - 16.5
	Medium	4204	29.1 27.6 - 30.5	4204	31.0 29.2 - 32.8	4204	18.8 17.6 - 20.0
	Low	1216	21.5 19.0 - 24.0	1216	30.8 28.3 - 33.3	1216	27.7 23.2 - 32.2
By Geography	Urban	7211	28.6 27.1 - 30.1	7211	30.8 29.5 - 32.0	7211	18.8 17.1 - 20.4
	Rural	1376	29.1 26.9 - 31.3	1376	33.8 31.1 - 36.5	1376	17.5 15.2 - 19.9

Positive relationships with family (2001)

		Mother and/or father care a lot	
		n	% (95% CI)
Total		9341	92.7 92.0 - 93.4
By Gender	Male	4280	93.1 92.1 - 94.0
	Female	5061	92.4 91.6 - 93.2
By Age	13 or younger	1993	92.7 91.5 - 94.0
	14	2241	92.7 91.6 - 93.7
	15	2128	92.2 91.0 - 93.4
	16	1696	92.3 91.1 - 93.6
	17 or older	1272	94.2 92.7 - 95.6
By Socio-economic Decile	High	3479	94.3 93.3 - 95.3
	Medium	4463	92.1 91.1 - 93.1
	Low	1399	90.9 89.5 - 92.4

Positive relationships with family (2007)

		Mother and/or father care a lot	
		n	% (95% CI)
Total		8916	90.3 89.6 - 91.1
By Gender	Male	4809	90.8 89.8 - 91.8
	Female	4107	89.8 88.8 - 90.8
By Age	13 or younger	1811	90.0 88.4 - 91.5
	14	2050	88.5 87.0 - 89.9
	15	1950	90.5 89.2 - 91.8
	16	1712	91.1 89.7 - 92.6
	17 or older	1393	92.4 91.0 - 93.8
By Socio-economic Decile	High	3341	91.7 90.7 - 92.8
	Medium	4304	90.2 89.3 - 91.2
	Low	1271	87.1 84.8 - 89.5
By Geography	Urban	7379	90.2 89.4 - 91.0
	Rural	1403	91.5 89.9 - 93.1

School safety (2001)

		Feels safe at school all or most of the time	
		n	% (95% CI)
Total		9368	78.1 76.2 - 80.0
By Gender	Male	4294	77.3 75.0 - 79.7
	Female	5074	78.8 76.7 - 80.9
By Age	13 or younger	2011	73.1 70.3 - 75.8
	14	2241	74.8 72.3 - 77.2
	15	2135	75.2 72.7 - 77.7
	16	1694	83.2 80.8 - 85.7
	17 or older	1276	90.2 88.0 - 92.4
By Socio-economic Decile	High	3478	83.7 81.4 - 86.0
	Medium	4478	77.5 75.1 - 80.0
	Low	1412	66.6 64.0 - 69.2

School safety (2007)

		Feels safe at school all or most of the time	
		n	% (95% CI)
Total		8900	83.5 81.7 - 85.3
By Gender	Male	4798	82.4 80.6 - 84.1
	Female	4102	84.8 82.5 - 87.1
By Age	13 or younger	1822	79.2 76.6 - 81.8
	14	2052	81.7 79.4 - 84.1
	15	1942	81.6 79.2 - 84.0
	16	1699	86.7 84.3 - 89.1
	17 or older	1385	90.5 89.0 - 91.9
By Socio-economic Decile	High	3325	87.8 85.3 - 90.4
	Medium	4308	81.1 78.9 - 83.2
	Low	1267	80.2 76.8 - 83.6
By Geography	Urban	7383	83.2 81.4 - 85.1
	Rural	1401	85.2 82.4 - 88.0

Episode of binge drinking in the last 4 weeks among ALL students (2001)

(Binge drinking = 5 or more drinks with 4 hours)

		An episode of binge drinking in the last 4 weeks	
		n	% (95% CI)
Total		8581	39.8 37.1 - 42.6
By Gender	Male	3864	41.4 38.1 - 44.7
	Female	4717	38.5 35.7 - 41.3
By Age	13 or younger	1774	15.9 13.3 - 18.5
	14	2033	30.4 27.3 - 33.6
	15	1966	47.6 43.9 - 51.2
	16	1599	56.3 52.5 - 60.1
	17 or older	1204	57.5 53.6 - 61.4
By Socio-economic Decile	High	3316	39.8 37.1 - 42.5
	Medium	4113	39.3 34.4 - 44.1
	Low	1152	42.1 36.6 - 47.6

Episode of binge drinking in last 4 weeks among ALL students (2007)

(Binge drinking = 5 or more drinks with 4 hours)

		An episode of binge drinking in the last 4 weeks	
		n	% (95% CI)
Total		8266	34.3 31.7 - 36.9
By Gender	Male	4400	35.7 32.9 - 38.6
	Female	3866	32.6 29.4 - 35.9
By Age	13 or younger	1664	13.5 11.3 - 15.8
	14	1890	26.0 23.5 - 28.5
	15	1797	37.7 33.8 - 41.7
	16	1592	47.0 42.6 - 51.4
	17 or older	1323	52.1 46.8 - 57.3
By Socio-economic Decile	High	3128	30.8 27.1 - 34.6
	Medium	4032	36.3 32.3 - 40.2
	Low	1106	37.0 30.6 - 43.4
By Geography	Urban	6874	32.8 30.1 - 35.5
	Rural	1328	41.9 38.6 - 45.2

Sexual abuse (2001)

		Ever been touched in a sexual way or made to do unwanted sexual things	
		n	% (95% CI)
Total		8467	18.3 17.1 - 19.5
	Male	3868	12.0 10.7 - 13.3
	Female	4599	23.7 22.1 - 25.3
By Age	13 or younger	1763	14.8 13.3 - 16.4
	14	2004	15.8 14.0 - 17.6
	15	1940	19.6 17.4 - 21.8
	16	1566	20.0 17.5 - 22.4
	17 or older	1183	23.3 20.8 - 25.8
By Socio-economic Decile	High	3290	16.8 15.0 - 18.6
	Medium	4017	17.6 15.9 - 19.2
	Low	1160	24.9 22.3 - 27.6

Sexual abuse (2007)

		Ever been touched in a sexual way or made to unwanted sexual things	
		n	% (95% CI)
Total		7462	12.1 10.8 - 13.4
By Gender	Male	3454	5.4 4.5 - 6.3
	Female	7462	19.9 18.5 - 21.3
By Age	13 or younger	1438	10.3 8.4 - 12.1
	14	1700	11.0 9.1 - 12.9
	15	1640	13.7 11.5 - 16.0
	16	1469	12.9 10.6 - 15.2
	17 or older	1215	12.5 10.5 - 14.5
By Socio-economic Decile	High	2871	11.1 9.0 - 13.1
	Medium	3605	11.9 10.2 - 13.7
	Low	986	15.6 12.8 - 18.3
By Geography	Urban	6183	12.3 10.8 - 13.7
	Rural	1222	11.2 9.5 - 12.9

Exposure to suicide attempts among friends and family (2001)

		A friend or family member has attempted suicide	
		n	% (95% CI)
Total		9075	16.9 15.6 - 18.3
By Gender	Male	4169	10.4 9.3 - 11.4
	Female	4906	22.6 20.9 - 24.2
By Age	13 or younger	1921	13.6 11.8 - 15.4
	14	2165	16.2 14.0 - 18.5
	15	2066	19.8 17.8 - 21.8
	16	1660	18.3 16.0 - 20.5
	17 or older	1248	16.7 14.3 - 19.0
By Ethnicity	NZ European	821	16.2 14.9 - 17.6
	Māori	464	21.1 19.0 - 23.1
	Pacific	148	20.5 16.0 - 25.0
	Asian	54	8.2 6.2 - 10.1
	Other	49	12.0 8.4 - 15.6
By Socio-economic Decile	High	3398	16.4 14.7 - 18.1
	Medium	4341	16.6 14.5 - 18.6
	Low	1336	19.5 15.7 - 23.2

Exposure to suicide attempts among friends and family (2007)

		A friend or family member has attempted suicide	
		n	% (95% CI)
Total		8751	14.7 13.1 - 16.2
By Gender	Male	4700	10.2 9.0 - 11.4
	Female	4051	19.8 17.8 - 21.8
By Age	13 or younger	1780	10.7 8.8 - 12.5
	14	2009	16.2 14.2 - 18.2
	15	1914	16.8 14.2 - 19.4
	16	1675	15.6 13.5 - 17.7
	17 or older	1373	13.4 10.8 - 15.9
By Ethnicity	NZ European	4643	13.9 12.5 - 15.3
	Māori	1634	21.5 18.8 - 24.2
	Pacific	856	17.0 14.0 - 20.0
	Asian	1101	6.8 5.5 - 8.2
	Other	510	12.9 8.8 - 16.9
By Socio-economic Decile	High	3275	12.3 10.0 - 14.5
	Medium	4241	15.6 13.6 - 17.5
	Low	1235	17.9 14.8 - 21.1
By Geography	Urban	7277	15.3 13.5 - 17.0
	Rural	1384	11.7 10.0 - 13.5

Accessing health care for emotional worries (2007)

		Seen a health professional for emotional worries in last 12 months	
		n	% (95% CI)
Total		8810	16.5 15.3 - 17.7
By Gender	Male	4740	11.5 10.3 - 12.7
	Female	4070	22.3 20.7 - 23.9
By Age	13 or younger	1798	14.2 12.1 - 16.3
	14	2023	18.2 16.4 - 20.1
	15	1926	18.3 15.9 - 20.6
	16	1687	16.4 14.4 - 18.5
	17 or older	1376	14.5 12.1 - 16.9
By Ethnicity	NZ European	4675	14.8 13.6 - 16.1
	Māori	1649	20.2 17.9 - 22.5
	Pacific	867	20.0 16.0 - 24.1
	Asian	1098	13.1 10.5 - 15.8
	Other	514	20.9 16.7 - 25.2
By Socio-economic Decile	High	3301	15.5 13.5 - 17.5
	Medium	4269	16.9 15.2 - 18.6
	Low	1240	17.8 14.8 - 20.8
By Geography	Urban	7317	16.6 15.2 - 18.0
	Rural	1394	15.7 13.5 - 18.0

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