

Suicide Register Steering Committee

Annual Report

2000

Mental Health Services

Department of Health and Human Services, Tasmania

© Department of Health and Human Services, Tasmania 2000

ISBN

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from Mental Health Services, Department of Health and Human Services, Tasmania. Requests and inquiries concerning reproduction rights should be directed to the State Manager, Mental Health Services, Department of Health and Human Services, Tasmania, GPO Box 125B, Hobart TAS 7001.

The opinions expressed in this document are those of the authors and are not necessarily those of the Department. This document is designed to provide information to assist policy and program development in government and non-government organisations.

Additional copies can be obtained from Mental Health Services, Department of Health and Human Services, Tasmania (telephone (03) 6233 2830, facsimile (03) 6233 3023).

Document prepared by:

Mr André Jenkins - Manager, Mental Health Information & Evaluation Unit

Mr Brook Teale - Project Officer, National Youth Suicide Prevention Strategy

NOTE: The Commonwealth Government has provided a media kit *Achieving the Balance* which provides valuable information to media professionals on how to sensitively and compassionately report and portray suicide and mental illnesses when reporting suicide. The kit may be accessed at: <http://www.mentalhealth.gov.au/mhinfo/ems/media.htm>

Other NYSPS documents may be found at <http://www.mentalhealth.gov.au/resources/index.htm> under "Suicide Prevention".

Mental Health Services
Department of Health and Human Services
Tasmania

Foreword

It is with pleasure that I offer you the inaugural annual report of the interdepartmental Suicide Register Steering Committee (SRSC).

Suicide was the recorded cause of death of 2164 Tasmanians between 1963 and 1999. Tasmania suicide rates have been higher than national rates since the mid-1970's. For Tasmania, premature mortality due to suicide now accounts for a little over 10% of all premature mortality. Further, the trend indicates that this proportion may be increasing.

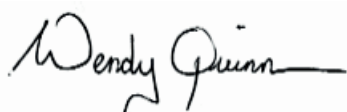
Although rare, death by suicide remains a tragic and potentially avoidable loss of life within Tasmania. Examination of the data related to completed suicides is integral to increasing our understanding of likely causes. It is hoped that this information, in turn, will assist the State Government in the development of strategies and initiatives that will reduce this unnecessary loss of life.

Since 1993 the SRSC has acted as a clearinghouse and central reference point for responding to prevention initiatives at a local, state and national level. Through the Committee, the State Government has undertaken to minimise the impact of suicide in the community through providing support to the development of preventative strategies and research initiatives. This has included the development of a database of completed suicides in Tasmania for monitoring local trends.

Support for a range of national, state and local prevention strategies has seen the development of important partnerships. These include links with key stakeholders such as the University of Tasmania and the Commonwealth Department of Health & Aged Care.

The Terms of Reference for the SRSC were revised in 1999 to include the provision of an annual report to the Minister of the Department of Health & Human Services. This document is the inaugural Annual Report and contains a summary of the activities of the committee, priorities for the future and a summary of relevant information from the database.

The core role of the SRSC is likely to remain as a clearing house and reference point. Despite this focus it will be necessary for the committee to reflect on and refine its own outcomes whilst also incorporating broader developments in the area of suicide prevention.



Wendy Quinn
Chair,
Suicide Register Steering Committee

State Manager,
Mental Health Services

TABLE OF CONTENTS

FOREWORD	4
EXECUTIVE SUMMARY	8
ACKNOWLEDGMENTS	11
SECTION A - BACKGROUND & STRUCTURE	12
BACKGROUND	12
STRUCTURE	12
<i>Membership</i>	12
<i>Meetings</i>	12
<i>Terms of Reference</i>	12
SECTION B - KEY ACTION AREAS FOR THE SRSC 2001	13
SECTION C - OUTLINE OF ACHIEVEMENTS IN RELATION TO THE TERMS OF REFERENCE	14
SECTION D - SUICIDE AND SELF-HARM IN TASMANIA	18
INTRODUCTION.....	18
SCOPE AND LIMITATIONS OF THE DATA.....	18
NUMBER OF SUICIDE DEATHS.....	19
SELECTED AGE AND SEX GROUPS.....	20
REGIONAL SUICIDE.....	24
METHOD.....	25
RURILITY AND SOCIO-ECONOMIC DISADVANTAGE.....	27
SELF-HARMING BEHAVIOUR.....	27
THE COST OF SUICIDE.....	29
SEASONAL SUICIDE INCIDENCE.....	29
SOURCES OF THE DATA.....	30

TABLES

TABLE 1: STANDARDISED SUICIDE RATES BY STATE OF USUAL RESIDENCE, AUSTRALIA 1982-1992	19
TABLE 2: SUICIDE CASES BY CAUSE OF DEATH (ICD-9-CM) AND YEAR, TASMANIA, 1988-1999	26

FIGURES

FIGURE 1: SUICIDE VS INJURY DEATHS UNDETERMINED WEATHER ACCIDENTALLY OR PURPOSEFULLY INFLECTED, AUSTRALIA, 1982-1992.....	19
FIGURE 2: SUICIDE RATE (3 YEAR MOVING AVERAGES), TASMANIA VS AUSTRALIA, 1967-1998.....	20
FIGURE 3: SUICIDE BY SEX WITH TREND, TASMANIA, 1963-1999.....	21
FIGURE 4: SUICIDE CASES REGISTERED BY SINGLE YEAR OF AGE, TASMANIA, 1978-199.....	21
FIGURE 5: SUICIDE RATE FOR SELECTED AGE GROUPS, AUSTRALIA, 1979-1998	22
FIGURE 6: SUICIDE VARIATION FROM EXPECTED FREQUENCY BY SELECTED AGE/SEX GROUPS, TASMANIA, 1988-1999	22
FIGURE 7: YOUTH SUICIDE RATE WITH TREND BY SEX, TASMANIA, 1978-1999.....	23
FIGURE 8: ELDERLY MALE SUICIDE RATE, TASMANIA, 1978-1998	23
FIGURE 9: SUICIDE RATE BY STATISTICAL DIVISION (REGION), TASMANIA, 1989-1999	24
FIGURE 10: PERCENTAGE VARIATION FROM EXPECTED SUICIDE FREQUENCY BY STATISTICAL DIVISION (REGION), TASMANIA, 1989-1999.....	25

FIGURE 11: FIREARMS SUICIDE VS ALL SUICIDES, TASMANIA, 1988-1999.....	26
FIGURE 12: SELECTED SUICIDE METHODS (%), TASMANIA, 1988-1999	27
FIGURE 13: SELF-HARM SEPARATIONS AND RATES, RHH, TASMANIA, 1990-1999	28
FIGURE 14: SELF-HARM PRESENTATIONS TO RHH DEM WITH TREND, SOUTHERN TASMANIA, 1990-1999	28
FIGURE 15: CRUDE YPLL DUE TO SUICIDE AS A PROPORTION OF ALL PREMATURE MORTALITY WITH TREND, TASMANIA, 1978-1995.....	29
FIGURE 16: SUICIDE BY SEASON OF DEATH, TASMANIA, 1992-1999	30
FIGURE 17: CONFIRMED VS PROVISIONAL (SUB JUDICE) CORONIAL FINDINGS OF 'SELF-INFLICTED DEATH', TASMANIA, 1963-1999.....	30

Executive Summary

The first annual report of the Suicide Prevention Steering Committee (SRSC) provides a summary of Tasmanian suicide data while also describing the coordination mechanism that the State Government uses in relation to suicide and self harm.

Section A

The Suicide Register Steering Committee was established in 1993 as an interdepartmental taskforce. It acts as a State Government clearing house and central reference point with regard to suicide prevention activity. The committee conducts monthly meetings which are chaired by the State Manager of Mental Health Services.

Section B

SRSC priority areas for the year 2001 are as follows:

- *Support the development of the Tasmanian Suicide Prevention Needs Analysis into the Tasmanian Suicide Prevention Strategic Plan.*
- *Support progress of nationally driven projects including:*
 - *Health & Well-being school based initiative*
 - *Other National Suicide Prevention Strategy (NSPS) projects funded on a national level.*
- *Support the progress/completion of local projects including:*
 - *Projects funded through the National Youth Suicide Prevention Strategy (NYSPS)*
 - *Projects funded through the NSPS*
 - *Projects funded through other sources.*
- *Monitor and support the continued development of the suicide prevention research being undertaken by the University of Tasmania, Office of the Coroner and Mental Health Services.*

Section C

The achievements of the SRSC are summarised in relation to the committee's 'Terms of Reference':

- Highlight special areas of concern related to suicide and suicide prevention.
- Collate information on current activity.
- Identify areas of need for preventative action, within a state and national context, leading to a coordinated focus for government activity within Tasmania
- Act as an advisory committee to the National Youth Suicide Prevention Strategy Project Officer
- Act as a reference group to the University of Tasmania National Youth Suicide Prevention Strategy training and education program
- Ensure inter-departmental support for the on-going maintenance and further development of a continuous database for completed suicides in Tasmania.
- Provide data, with appropriate provisos on reliability, as required by government and ensure departmental support of the continuous database for completed suicides in Tasmania.

- Produce for the Minister for Health and Human Services, an annual report on the data, set against comparative trends and epidemiological data at the state and national level.

Section D

The focus of Section D is deaths due to suicide in Tasmania, principally for the period 1978 – 1999. It also includes a preliminary analysis of self-harming behaviour.

Due to the small numbers involved in some of the analyses, the data in this publication should be interpreted carefully. It is intended that future publications will provide error bars for 95% confidence intervals for rates.

The key features of the incidence of suicide in Tasmania are that:

- for the period 1978-1999, females account for 19% of suicide cases, males 81%;
- the overall rate has remained higher than the national rate over many years;
- the youth suicide rate (15-24 year olds) appears to be declining;
- males 15-34 are significantly over-represented compared with other Tasmanian age cohorts, accounting for one third of all deaths;
- rates remain high amongst elderly males (65 +);
- guns have largely been replaced by carbon monoxide and hanging as the principal method, and
- the regional variation is striking and changing.

The key features of the incidence of self-harming behaviour in southern Tasmania for the period 1990-1999 are:

- females account for 54% of self-harm separations, males 46%;
- except for the 30-34 age group, females are separated at a slightly higher rate than males across all age groups until age 60, where the trend reverses;
- self-harm separations are highest for females in the 25-29 age group;
- self-harm separations are highest for males in the 30-34 age group; and,
- the number of self-harm presentations to the Department of Emergency Medicine per month have increased steadily over the period 1990-1999.

The report also includes preliminary analyses of crude years of potential life lost, seasonal variation and deaths, undetermined whether purposefully or accidentally inflicted.

An analysis of the effects of rurality and relative socio-economic disadvantage on Tasmania's suicide rates was inconclusive, due to small numbers.

NOTE: The Commonwealth Government has provided a media kit *Achieving the Balance* which provides valuable information to media professionals on how to sensitively and compassionately report and portray suicide and mental illnesses when reporting suicide. The kit may be accessed at: <http://www.mentalhealth.gov.au/mhinfo/ems/media.htm>

Other NYSPS documents may be found at <http://www.mentalhealth.gov.au/resources/index.htm> under "Suicide Prevention".

Acknowledgments

Suicide Register Steering Committee

Ms Wendy Quinn, Chair
State Manager
Mental Health Services
Department of Health & Human Services

Ms Victoria Rigney
Senior Consultant, Policy
Mental Health Services
Department of Health & Human Services

Ms Judy Hebblethwaite
Manager
Office of Youth Affairs
Department of Education

Mrs Jenny Scott
Co-ordinator, Coronial Division
Magistrates Court
Department of Justice & Industrial
Relations

Sgt Rod Carrick
Coroners Associate
Department of Police & Emergency
Services

Mr Rod MacGregor
Social Worker, Clare House
Department of Health & Human Services

Mr Graeme Cooksey
Principal Curriculum Officer
Department of Education

Mr Kelly Direen
Senior Project Officer
Commonwealth Department of Health
and Aged Care

Mr Martin Harris
Project Officer, University Dept of
Rural Health
University of Tasmania

Other Contributors and Advisers

Professor Ken Kirkby, Head
Discipline of Psychiatry
University of Tasmania

Mr Simon Brown, Director
Department of Emergency Medicine
Royal Hobart Hospital

Dr Brett Daniels, Senior Lecturer
Discipline of Psychiatry
University of Tasmania

Ms Alison Bowling, Research Assistant
Discipline of Psychiatry
University of Tasmania

Ms Meredith Harris, Evaluation &
Quality Officer
Centre for Young People's Mental
Health
Melbourne Health

Section A - Background & Structure

Background

In response to the complex problem of suicide in Tasmania, in particular to the exceptionally high number of suicides during 1992, the Government established an interdepartmental taskforce known as the Suicide Register Steering Committee (SRSC). Since coming into existence in May 1993 the committee has provided a clearinghouse for statistical information and enquiries, and acted as a central reference point for responding to local, statewide and national initiatives relating to suicide prevention.

Structure

Membership

In the seven years since the inception of the SRSC the core membership has been made up of representatives from the Departments of Health & Human Services; Education and Justice & Industrial Relations (Office of the Coroner and Police). In September 1999 when membership was reviewed it was decided to broaden the membership to include a representative from the Commonwealth Department of Health & Aged Care and the University of Tasmania Department of Rural Health.

Meetings

The SRSC conducts monthly meetings chaired by the State Manager, Mental Health Services. Since September 1999 the meeting has been divided into two components including a section focussing on suicide prevention activities and another relating to data collection and research activities.

Terms of Reference

The initial terms of reference for the SRSC adopted in 1993 were amended on September 21, 1999.

Suicide Register Steering Committee Terms of Reference (21/9/1999)

The Committee will:

- Highlight special areas of concern.
- Collate information on current activity.
- Identify areas of need for preventative action, within a state and national context, leading to a coordinated focus for government activity within Tasmania.
- Act as an advisory committee to the National Youth Suicide Prevention Strategy Project Officer.
- Act as a reference group to the University of Tasmania National Youth Suicide Prevention Strategy training and education program.
- Ensure inter-departmental support for the on-going maintenance and further development of a continuous database for completed suicides in Tasmania.
- Provide data, with appropriate provisos on reliability, as required by government and ensure departmental support for the continuous database for completed suicides in Tasmania.
- Produce for the Minister for Health and Human Services, an annual report on the data, set against comparative trends and epidemiological data at the state and national level.

Section B - Key Action Areas for the SRSC 2001

Provided below is a list of the key action areas for the SRSC for the 2001 calendar year. These action areas are supplementary to the normal functioning of the SRSC as outlined in the Terms of Reference.

- **Support the development of the Tasmanian Suicide Prevention Needs Analysis into the Tasmanian Suicide Prevention Strategic Plan**
- **Support progress of nationally driven projects**
 - Health & Wellbeing school based initiative
 - Other NSPS projects funded on a national level
- **Support the progress/completion of local projects**
 - Projects funded through the NYSPS
 - Projects funded through the NSPS
 - Projects funded through other sources
- **Monitor and support the continued development of the suicide prevention research being undertaken by the University of Tasmania, Office of the Coroner and Mental Health Services**

Section C - Outline of Achievements in Relation to the Terms of Reference

Highlight special areas of concern.

The identification of special areas of concern has occurred in a variety of ways within the SRSC.

In some situations the committee has responded to individual areas of concern on a one-off basis. This has included co-ordinating responses to events that may have increased the risk of suicide within sections of the Tasmanian community.

On a more long-term basis, the Suicide Register Steering supported the identification of key issues and areas of concern through the development of a Needs Analysis of Suicide Prevention in Tasmania.

Tasmanian Suicide Prevention Needs Analysis

- *With support and input from the SRSC a Needs Analysis of the current situation with respect to youth suicide and available suicide prevention services was conducted.*
- *The Needs Analysis included the identification of 5 key priority areas:*
 1. Population-based interventions
 2. Partnerships with Indigenous communities
 3. Enhancements to community-based services
 4. Improve services for individuals at special risk
 5. Improve practice and enhance service systems.
- *The priority areas will be used, along with national priority areas, in the formation of a Tasmanian Suicide Prevention Strategic Plan.*

Collate information on current activity.

The SRSC collates and monitors information in relation to suicide prevention activities. This information ranges from small projects or individual requests through to regular discussion of national strategies such as the National Youth Suicide Prevention Strategy and the National Suicide Prevention Strategy.

National Suicide Prevention Strategy

- *The Commonwealth has allocated nationally \$39.2 million over 4 years (1999-2003) to build upon the outcomes of the National Youth Suicide Prevention Strategy. This new initiative is the National Suicide Prevention Strategy (NSPS).*
- *As a method of collating information about the NSPS the SRSC has been receiving monthly updates about the strategy from a representative of the Tasmanian Office of the Department of Health & Aged Care.*
- *This relationship has helped in the development of important partnerships between the State Departments represented at the SRSC and the State Office of the Commonwealth Department of Health & Aged Care.*

Identify areas of need for preventative action, within a state and national context, leading to a coordinated focus for government activity within Tasmania.

Areas for preventative action have been developed from within state and national based projects. Preventative action includes a range of primary prevention, early intervention, intervention and post-vention activities.

At a state level the SRSC has been involved in the previously discussed Tasmanian Suicide Prevention Needs Analysis.

Nationally the SRSC has been involved in supporting the identified action areas involved in the NYSPS, the NSPS and more recently a range of school based health initiatives. Members have supported the development of a Health and Well-Being initiative which co-ordinates these school based strategies. Involvement of the SRSC has facilitated such co-ordination within State Government and across levels of Government.

Health & Well Being School Based Initiative

- *Through discussions held at the SRSC and a variety of other forums it became apparent that there were several national health based programs currently being implemented at a statewide level*
- *The programs involved a range of areas related to mental health including illicit drugs, sexual health and suicide prevention.*
- *It was envisaged that collaboration between those involved would enable co-ordination of these programs into a more holistic initiative dealing with health & well being.*
- *The implementation and success of such an initiative is seen by the SRSC as a significant contribution to the area of suicide prevention through improvements in the general population health and well being of the community.*

Act as advisory committee to the National Youth Suicide Prevention Strategy Project Officer.

Between 1996 and 2000, Tasmania received \$379 000 of Commonwealth funding through the National Youth Suicide Prevention Strategy (NYSPS). The funding was received for work in the areas of (a) the Education and Training of Professionals, and (b) Rural and Regional Counselling Services.

Since June 1998 the Department of Health & Human Services has employed a Project Officer to co-ordinate the State's response to the NYSPS.

The SRSC has provided advice and guidance to the work of the various individuals who have filled the project officer position. Despite the NYSPS Project Officer position ceasing in December 2000, Mental Health Services has committed to the ongoing support of the SRSC. It is envisaged that a Project Officer will continue to coordinate a consolidated focus on statewide activities.

National Youth Suicide Prevention Strategy

Some of the key achievements of the Tasmanian component of the NYSPS have included:

- *Development and distribution of a Tasmanian specific suicide prevention information kit*
- *Funding of local suicide prevention initiatives in relation to rural and regional counselling:*
 - 'Time-Out' - Youth Suicide Action Group Incorporated*
 - 'Getting it Together: Resilience for At Risk Youth' - Oakrise*
- *Support of the Tasmanian leg of the National Reach Out Tour*
- *Development of improved communication links between those involved in suicide prevention within Tasmania.*
- *Improved links with Commonwealth representatives, particularly in relation to the National Suicide Prevention Strategy.*
- *A collaboration with the University Department of Rural Health to address the area of training and education.*

Act as reference group to the University of Tasmania National Youth Suicide Prevention Strategy training and education program.

To address the training and education component of the NYSPS, a collaboration was established between the Department of Health & Human Services and the University Department of Rural Health (UDRH). This project included targeting and training practicing professionals.

The SRSC received monthly reports on this project from the UDRH Project Officer and where appropriate the SRSC members provided feedback.

Youth Suicide Prevention - Gatekeeper Workshop

- *Based in Western Australia, the Gatekeeper training program provides participants with information about youth suicide prevention and in particular, risk assessment.*
- *As part of the training and education project 120 individuals from throughout Tasmania received the Gatekeeper training in August 2000.*
- *These individuals came from a variety of professions including nursing, policing, corrective services, teaching, counselling and other allied health areas.*
- *Twenty of these people were trained as trainers in the Gatekeeper program during November 2000. Once these individuals become accredited trainers they will be in a position to train a variety of other Tasmanians.*

To ensure inter-departmental support for the on-going maintenance and further development of a continuous database for completed suicides in Tasmania.

In keeping with the national emergence of suicide as a major public health issue, a database of completed suicides has been established for Tasmania. Auspiced by the SRSC, the raw data is supplied by the Office of the Coroner, while the collection itself

is managed by Mental Health Services, who also provide basic analysis. A program of research has commenced in collaboration with the University in 2000 using this data.

In future years, data supplied to the National Coronial Information System (NCIS) is likely to reduce the need for a local data collection, but it is not intended that the NCIS collection include historical data. Thus the need for the local historical data will remain. Work is currently underway to align data elements in the local collection with nationally agreed definitions and to employ standard reference files.

Provide data, with appropriate provisos on reliability, as required by government and ensure departmental support for the continuous database for completed suicides in Tasmania.

The database allows for the tracking of local trends on a day-to-day basis, enabling various Government Agencies and community representatives to respond promptly to emerging issues. Early access to this data has proven beneficial. The database has been used as the primary information source for the SRSC Annual Report.

The annual report provides a summary analysis of Tasmanian suicide data principally for the period 1989-1999. It examines age cohorts, sex differentials, method and other key factors. The report also examines self-harm presentations from the Department of Emergency Medicine at the Royal Hobart Hospital, and self-harm separations¹.

Suicide is a rare event, and the incidence is not high. For small jurisdictions, this presents particular problems in interpretation. In some of the sub-sets of the data fluctuations will occur because of small numbers, thus a more accurate picture is obtained by averaging the data over several years.

Produce for the Minister for Health and Human Services, an annual report on the data, set against comparative trends and epidemiological data at the state and national level.

The annual report identifies the coordination mechanism that is being used in relation to the State Government and the issue of suicide, including data analysis (see Section D). The data is also available as a separate publication from Mental Health Services upon request.

¹ A person is said to be *separated* from a hospital when their episode of care concludes. This is usually due to being discharged (home, to another ward, to another hospital) or dying.

Section D - Suicide and Self-Harm in Tasmania

Introduction

The focus of this section is the analysis of deaths due to suicide in Tasmania, principally for the period 1978 – 1999. It also includes a preliminary analysis of self-harming behaviour for one major Tasmanian public hospital. This data updates and expands upon *Measuring and Reporting Suicide in Tasmania*.²

For the purpose of this publication ‘suicide’ is defined as *the act of voluntarily and deliberately taking one’s own life*. In the findings of coronial inquests, however, it is usual for the Coroner to report that death was *self-inflicted*. Where possible, nationally agreed classifications are used throughout, and are explained in the text, or elsewhere within report.

Scope and Limitations of the Data

Suicide is essentially a rare event, and there are difficulties inherent in attempting to interpret trends involving low levels of incidence. However, annual variation, as well as variation within sex, age cohorts, geographical boundaries for additional analyses where the number of cases is much lower, causes difficulty with some comparisons. For Tasmania, where the annual number of cases is only 60-100, the data needs to be interpreted cautiously. Trends are discernible and robust only for types of analysis where the number of cases is sufficiently high.

Throughout this document crude rates have mostly been reported for the Tasmanian data. Standardised data have been reported, where the data has been sourced from national collections, or other publications. It is anticipated that future editions of this publication will report standardised rates for Tasmanian data, as well as 95% confidence intervals for rates.

Counting Suicides

Most cases of suicide are unequivocal regarding the deliberate intent to end life, but sometimes death results from self-harming behaviour where the intent was not to take one’s life. Conversely, at other times people choose to take their life in a manner suggesting that the act was not deliberate. Because of this, annual variation in the total number of suicide findings could be due to: genuine movement in number of cases; or, be an artifact of changing standards of coronial determination over time; or, be due to other reasons (eg changed collection methodology).

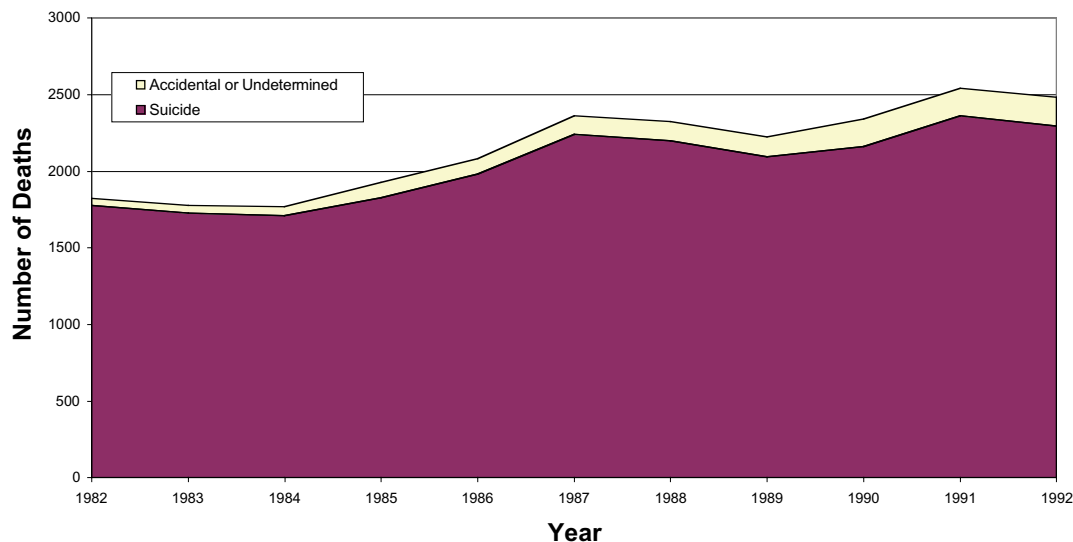
Possible Under-enumeration

In recent years, injury surveillance data collections have begun to count cases where coronial hearings were unable to determine whether the act leading to death was accidentally or deliberately inflicted. When compared with existing suicide data, this provides an indication of the possible magnitude of under-enumeration of the incidence of suicide. As data for this class of injury deaths (accidentally or deliberately inflicted)

² Jenkins, A., *Measuring and Reporting Suicide in Tasmania*. DCHS (1997): Hobart

have not been routinely collected for Tasmania, the national data for the period 1981 – 1992 are presented in Figure 1 to provide an indication of the national trend. At worst this would inflate total numbers by only 5% – 10%.

Fig 1: Suicide vs Injury Deaths Undetermined Whether Accidentally or Purposefully Inflicted, Australia, 1982-1992



Source: National Injury Surveillance Unit, Flinders University

Number of Suicide Deaths

Australia’s suicide rate has moved from being one of the highest of western nations, to below the world average.³ The suicide rate for Tasmania has remained consistently above the Australian rate for many years, although recent evidence indicates that this may be changing.

Table 1: Standardised Suicide Rates by State of Usual Residence, Australia 1982 - 1992

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1979	11.1	12.6	14.4	14.3	10.0	14.4	11.0	9.5	12.2
1980	11.0	11.8	13.0	11.6	10.6	11.4	14.4	6.3	11.5
1981	11.3	12.6	15.2	13.1	11.5	16.0	9.7	13.3	12.6
1982	11.2	11.8	12.8	12.9	13.2	14.0	6.3	7.1	12.0
1983	10.1	12.8	11.6	10.2	11.0	16.3	15.3	12.5	11.4
1984	9.4	11.6	12.9	10.8	12.9	11.9	8.0	14.4	11.1
1985	11.7	10.2	13.6	9.9	12.3	16.1	11.3	11.9	11.6
1986	11.1	12.4	14.9	12.9	11.4	15.7	11.4	12.5	12.4
1987	11.4	15.4	15.9	13.1	13.7	15.2	10.6	15.4	13.7
1988	12.6	12.4	14.9	12.8	13.5	15.8	18.2	10.4	13.2
1989	11.6	11.3	14.6	14.0	11.9	12.9	22.1	13.4	12.4
1990	11.4	11.2	14.6	14.6	13.2	15.2	17.7	13.3	12.5
1991	12.7	13.4	14.2	15.6	12.9	14.4	10.9	11.5	13.4
1992	12.0	12.2	14.0	14.3	13.0	20.7	15.6	10.3	12.9
1993	11.7	11.0	11.9	11.2	13.0	17.9	13.6	9.1	11.8
1994	12.8	11.3	14.3	11.3	21.8	15.0	11.6	11.9	12.6
1995	12.4	12.4	15.2	13.4	12.6	14.1	13.6	11.1	13.0
1996	13.0	10.8	16.2	12.3	12.4	13.6	20.2	11.9	13.0
1997	14.6	14.2	15.3	13.0	13.8	10.7	19.6	12.9	14.3
1998	13.3	12.1	16.3	16.1	15.2	12.4	21.3	9.5	14.0

Source: ABS: Suicides 1921-1998, Catalogue 3309.0 (2000)

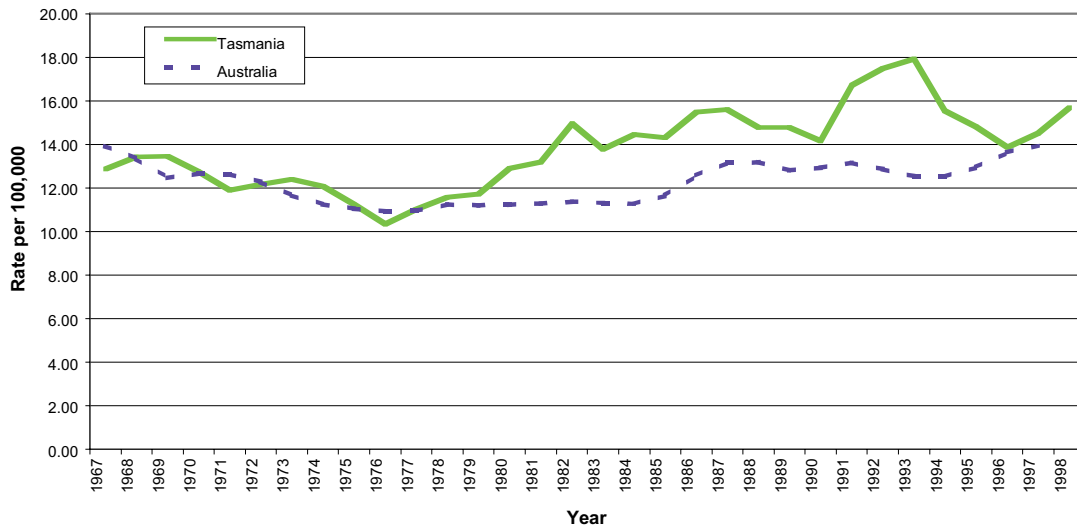
³ WHO: World Health Statistics Annual 1996 (1998)

Underlying trends in data where the incidence is small and the year to year variation is high, are analysed using moving averages. This technique ‘flattens out’ the peaks and troughs associated with the small incidence and the high variability.

Between 1963 and 1999, suicide was the recorded cause of death of 2,164 Tasmanians (1664 males and 500 females); and for the same period, 67,486 Australians (50,028 males and 17,458 females).

For Tasmania between 1978 and 1999, the maximum annual number of suicides was 97 in 1992, while the minimum number was 45 in 1980. Figure 2 presents trends in the Tasmanian and Australian suicide rates using 3 year moving averages.

Fig. 2: Suicide Rate (3 Year Moving Averages), Tasmania vs Australia, 1967-1998



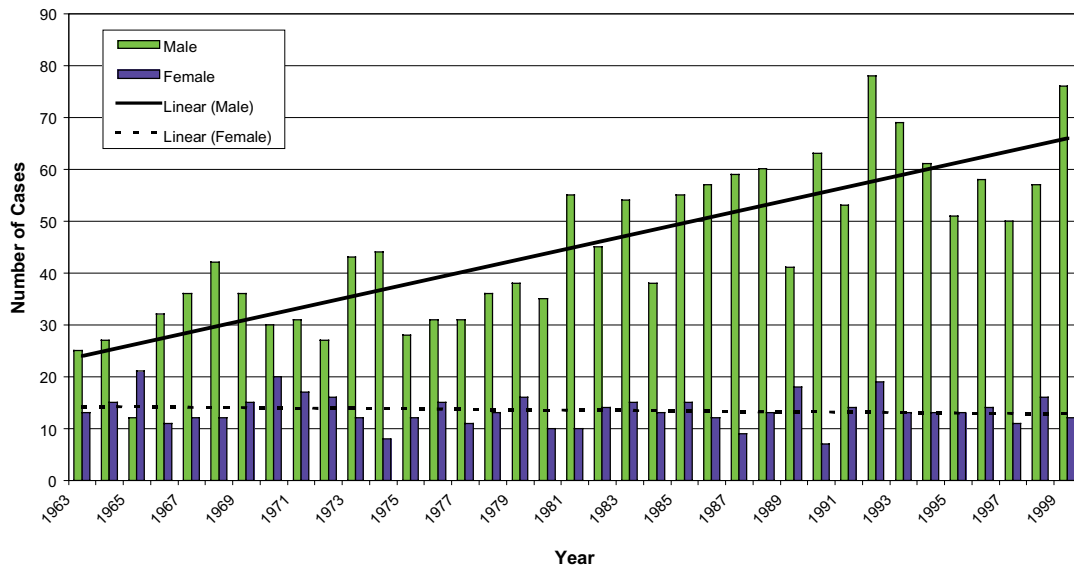
Source: ABS; Office of the Coroner (Hobart)

Figure 2 shows that Tasmania’s suicide rate was consistently above the national rate between the early-1980’s and mid-1990’s. Regardless of annual variation, this is a very clear trend. There is some evidence from recent years that this trend may be changing, although it may simply be an artifact of normal annual variation and it is probably too early to be anything but cautious in making such an interpretation.

Selected Age and Sex Groups

The greater part of Tasmania’s suicide mortality occurred amongst males (1664 cases or 76.9%). Despite annual variation in rates over the reference period, the clear trend has been for male suicide rate to continue to increase, while for the same period, the female rate has remained virtually unchanged, in fact falling slightly. See Figure 3.

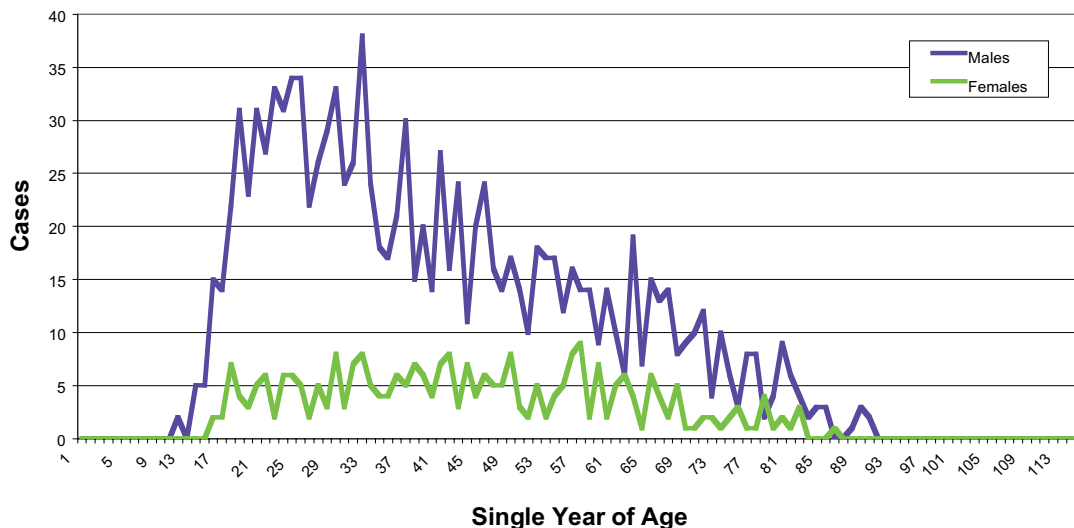
Fig. 3: Suicide by Sex with Trend, Tasmania, 1963-1999



Source: ABS; Office of the Coroner (Hobart)

The number of suicides nationally and in Tasmania is highest amongst young males aged 15-34. Between 1978 and 1999, 522 of the 1475 registered cases (34.5%) were males in this age cohort. The age at which greatest number of deaths occurred was for 33 year old males (2.58%). Of the total cases, males accounted for 80.4%, and females 19.6%. Figure 4 shows the number of registered cases across all ages for that period.

Fig. 4: Suicide Cases Registered by Single Year of Age, Tasmania, 1978-1999

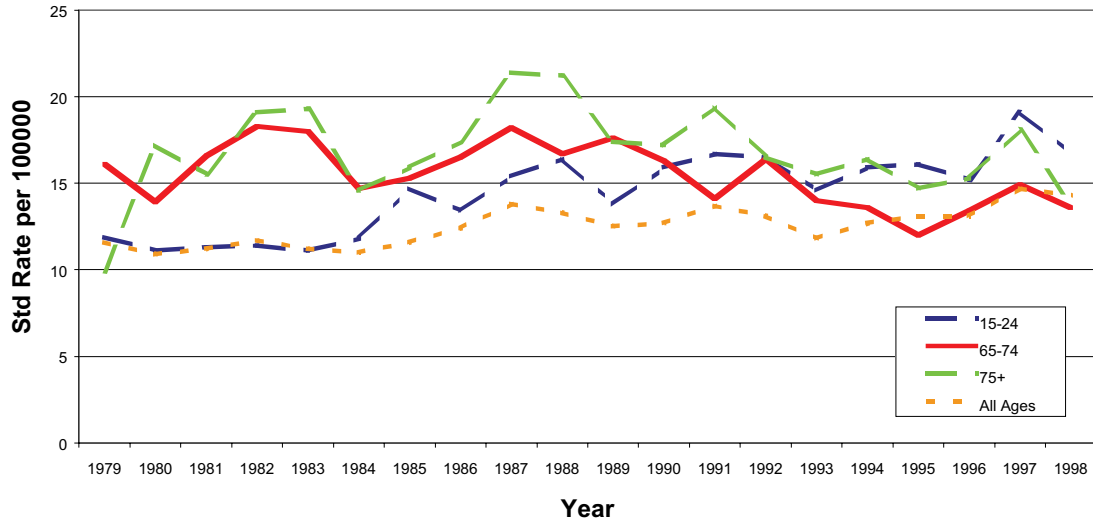


Source: ABS; Office of the Coroner (Hobart)

Suicide rates are highest both for males 15-34 and for males over 75. The youth suicide rate (persons aged 15-24), while previously high has declined in Tasmania in recent years. Across Australia, the trend is for an increase in youth suicide rates. Rates

amongst elderly males in Tasmania remain very high (rates for selected age groups are presented in Figure 5).

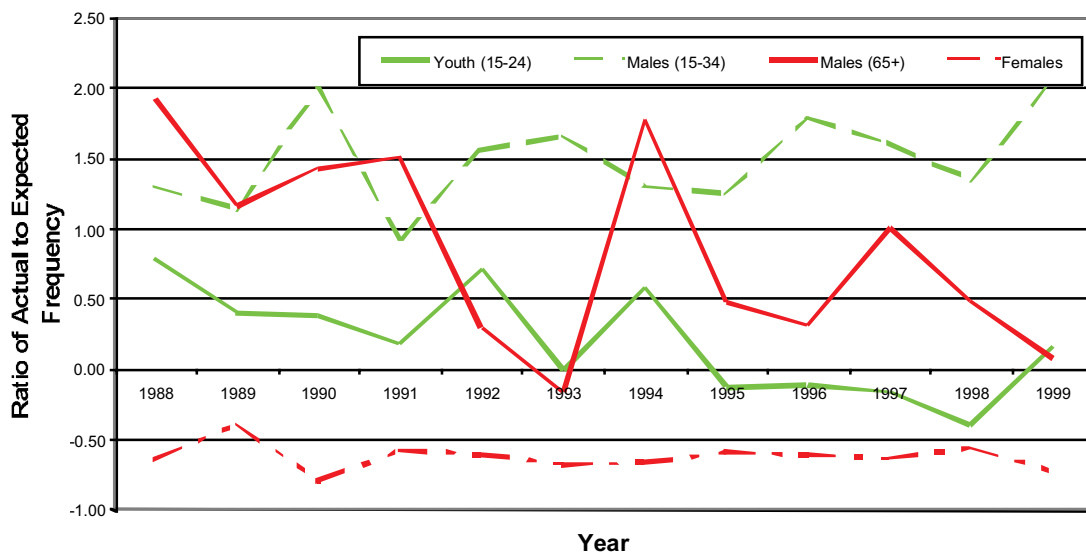
Fig. 5: Suicide Rate for Selected Age Groups, Australia, 1979-1998



Source: National Injury Surveillance Unit, Flinders University

Certain age and sex groups are disproportionately represented in the suicide statistics. In order to determine the magnitude of this, it is possible to examine variation from expected frequencies. The assumption underlying this analysis is that suicide is a random event that will affect all age and sex cohorts equally and thus the incidence of suicide will be evenly distributed across the population. Figure 6 presents the variation from the expected frequency by selected age cohorts and by sex, where the expected frequency is zero.

Fig. 6: Suicide Variation from Expected Frequency by Selected Age/Sex Groups, Tasmania, 1988-1999

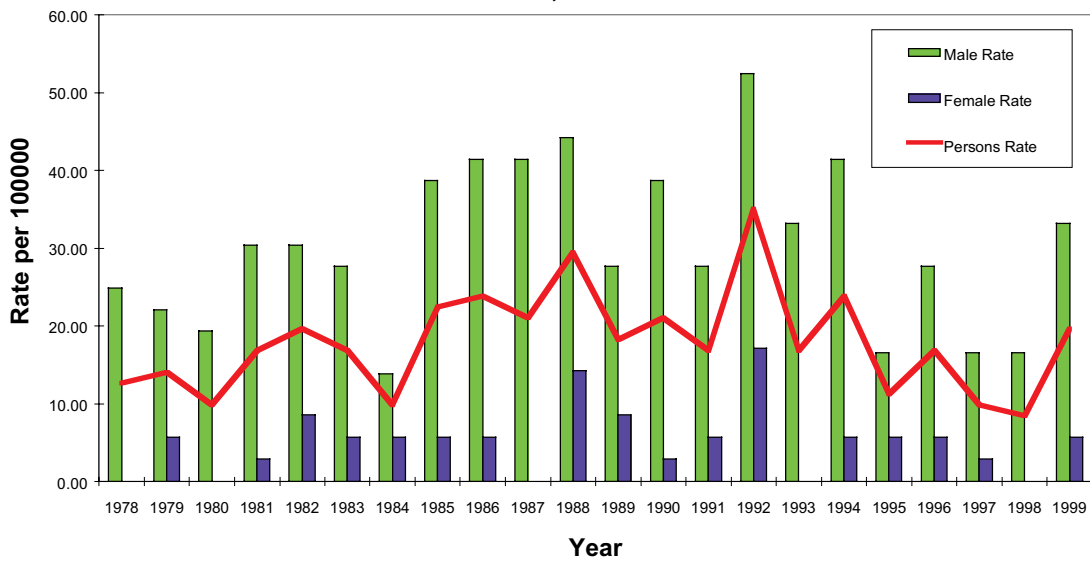


Source: ABS; Office of the Coroner (Hobart)

Despite the small numbers involved for Tasmania, the trends are quite clear. For Tasmania, males age 15-34 are the most disproportionately over-represented group followed by males 65 and over. Females have been consistently under represented.

Youth suicide, while previously high, is now occurring at a rate representative of the population's age structure. However, the overall youth suicide rate is tempered by the low female suicide rate component; but within this, the male component of the youth rate remains high. See Figure 7.

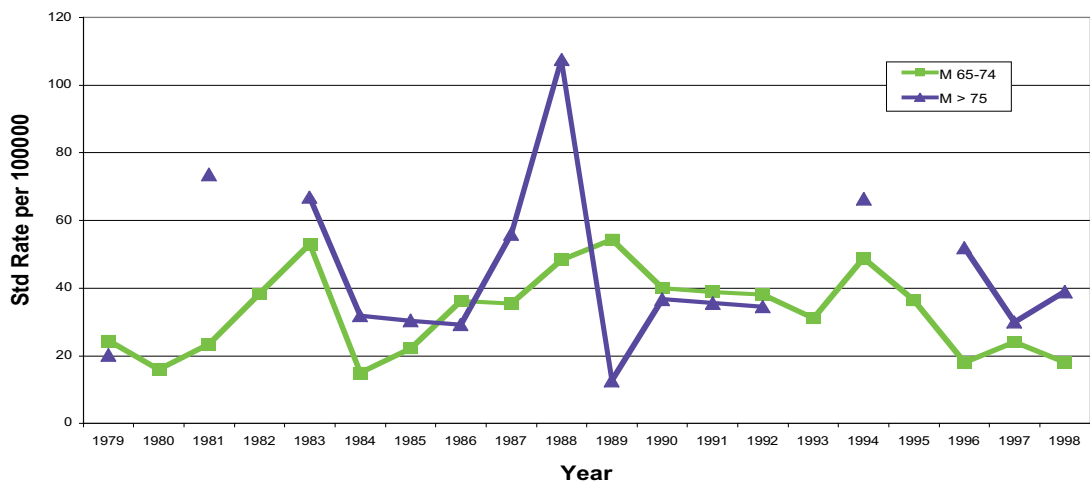
Fig. 7: Youth Suicide Rate With Trend by Sex, Tasmania, 1978-1999



Source: ABS; Office of the Coroner (Hobart)

At the other end of the life cycle, suicide rates are high for elderly males. Until recently this age cohort has experienced the highest rates for many years. In Tasmania, as is the case nationally, rates are particularly high in the over 75 males. See Figure 8.

Fig. 8: Elderly Male Suicide Rate, Tasmania, 1978-1998

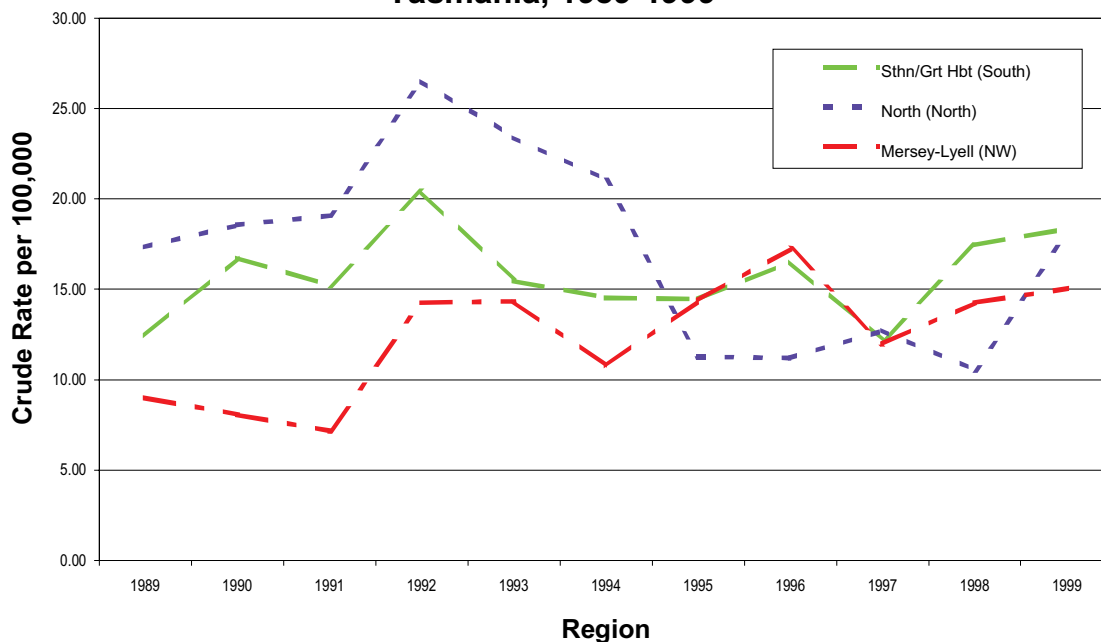


Source: National Injury Surveillance Unit, Flinders University

Regional Suicide

Tasmanian data is typically analysed according to the three primary planning regions (South, North and North West). These regions closely map to the ABS Statistical Division (SD) boundaries. Greater Hobart SD and Southern SD together map to the Southern region, while Northern SD maps to the Northern region, and Mersey-Lyell SD maps to the North-Western region. The suicide data has been analysed accordingly: see Figure 9.

Fig. 9: Suicide Rate by Statistical Division (Region), Tasmania, 1989-1999

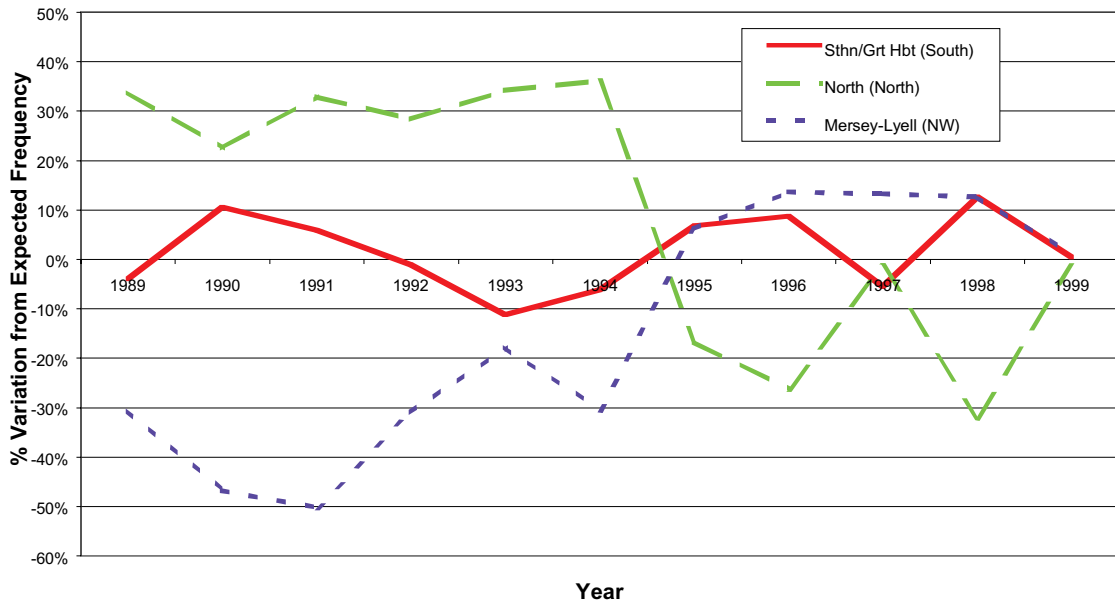


Source: ABS; Office of the Coroner (Hobart)

From the late 1980's to the mid 1990's, rates have been highest in the North, and lowest in the North-West. In 1995 this trend reversed. Throughout the reference period, rates in the South have remained relatively stable. These rates do not take into account the differences in the population structure of the three regions.

Regional rates can be compared with each other if we examine the ratio of expected rate (based on the rate for the whole of Tasmania; and, the population of the region) to the actual rates of suicide within those regions for the period 1989-1999. See Figure 10.

Fig. 10: Percentage Variation from Expected Suicide Frequency by Statistical Division (Region), Tasmania, 1989-1999



Source: ABS; Office of the Coroner (Hobart)

For the period 1989 to 1994, the rates of suicide in the South (48% of the population) rates have remained close to the expected frequency (varying from 11% lower to 10% higher than expected). During the same period the rates in the North (28% of the population) indicated that the incidence of suicide was over-represented until 1995 (22-36% higher than expected), while the rates in the North West (24% of the population) indicated that suicide has been under-represented (18-50% lower than expected).

Since 1995, this strong trend has changed for the north of the state. Rates in the North have fluctuated between (1-32 % lower than expected), while rates in the North West have fluctuated between (1-14% higher than expected). In the South rates have continued to remain close to the expected frequency (from 6% lower to 13% higher than expected).

Method

In all Australian jurisdictions for the reference period, cause of death and ‘external causes’ (suicide method) were classified according to the WHO International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). The numbers for Tasmania are presented in Table 2.

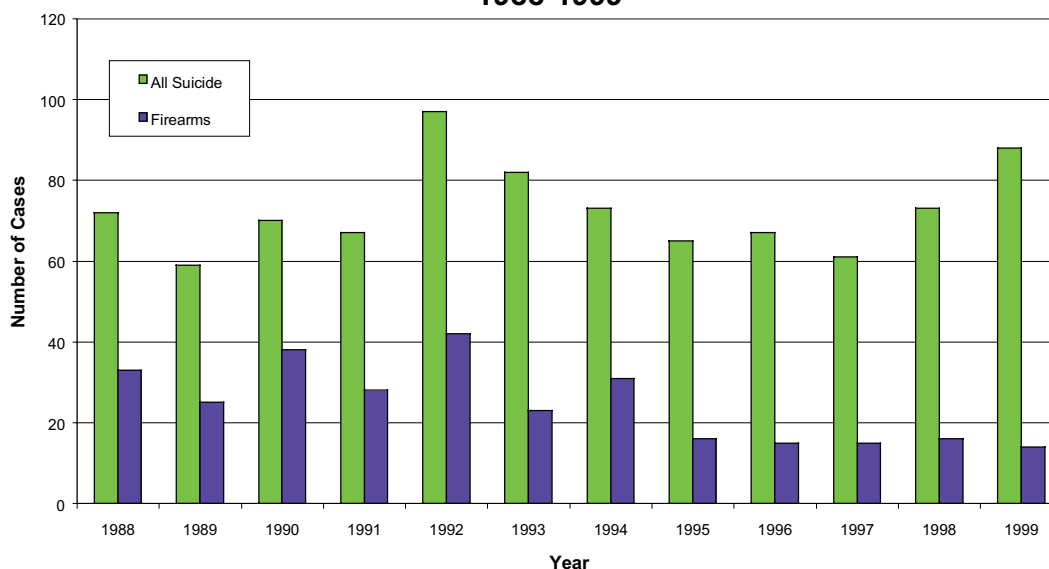
Table 2: Suicide Cases by Cause of Death (ICD-9-CM) and Year, Tasmania, 1988-1999⁴

E-Code	Description	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
E-950	Poisoning	12	8	6	8	9	4	8	7	11	9	8	6
E-951	Domestic Gas	**	**	**	**	**	**	**	**	**	**	**	**
E-952	Carbon Monoxide	11	7	14	9	18	32	14	18	22	17	25	34
E-953	Hanging, Asphyxiation	11	12	6	18	20	14	12	14	17	13	17	29
E-954	Drowning	**	**	**	**	**	**	**	**	**	**	**	**
E-955	Gunshot	33	25	38	28	42	23	31	16	15	15	16	14
E-956	Cutting	**	**	**	**	**	**	**	**	**	**	**	**
E-957	Jumping	**	**	**	**	5	4	**	6	**	**	**	**
E-958	Other and Unspecified	**	**	**	**	**	**	**	**	**	**	**	**
E-959	Delayed	**	**	**	**	**	**	**	**	**	**	**	**
Persons		72	59	70	67	97	82	73	65	67	61	73	88

Source: ABS; Office of the Coroner (Hobart)

Until 1995, Tasmania had high rate of firearms-related suicide, but this trend has not continued. Possible reasons for the reduction in choice of this method may have been the increased difficulty in obtaining a firearm following the introduction of new firearms legislation in 1995, followed by the buyback scheme. See Figure 11.

Fig. 11: Firearms Suicide vs All Suicides, Tasmania, 1988-1999

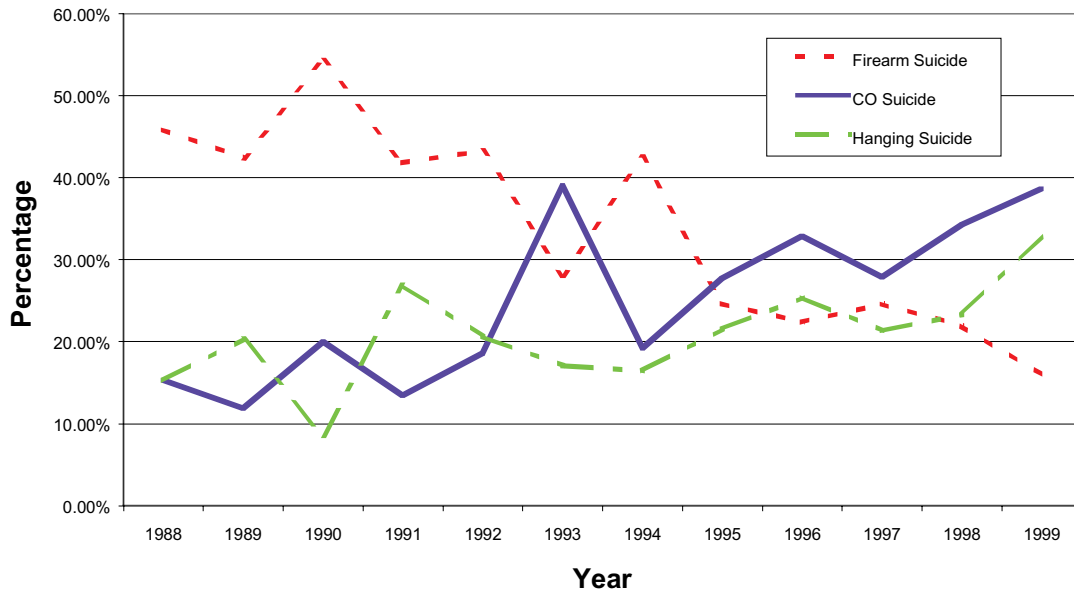


Source: ABS; Office of the Coroner (Hobart)

It is well established that reducing access to a particular means of suicide, generally leads to an increase in the use of other methods within a year or two. In Tasmania since 1995, this appears to have been borne out in marked increases in the use of both hanging and CO poisoning as methods of suicide in recent years. See Figure 12.

⁴ Note, cells where the count is 3 or less have been suppressed (as denoted by **) in accordance with standard practice.

Fig. 12: Selected Suicide Methods (%), Tasmania, 1988-1999



Source: ABS; Office of the Coroner (Hobart)

Rurality and Socio-economic Disadvantage

Rural and remote areas of Australia are known to have higher suicide rates than metropolitan areas. Rurality is measured using the Rural, Remote and Metropolitan Areas (RRMA) Classification, which is updated at each census. The classification allocates Statistical Local Area (SLA) according to population density and an index of remoteness. Cases are grouped by SLA according to the place of usual residence.

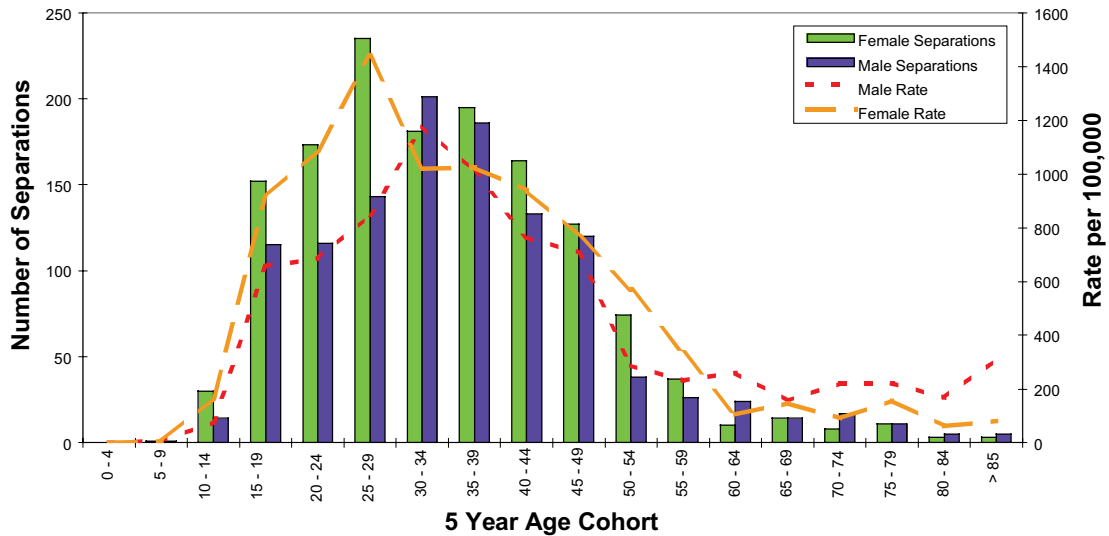
Socio-economic factors have high correlations with suicide rates, particularly unemployment in males. Socio-economic disadvantage can be measured using the Index of Relative Socio-economic Disadvantage (IRSD), which is one of five indices included in the ABS' Socio-Economic Indices for Areas (SEIFA). This classification also groups cases by SLA according to the place of usual residence.

At the time of publication, it was only possible to analyse Tasmanian data for the three years 1993-1995, and the analysis for both of these indices was too inconclusive to present in this paper. It is anticipated that future publications will include this analysis as more years of data become available.

Self-harming Behaviour

Self-harm data is available for separations (hospital discharges) from the Royal Hobart Hospital for the period 1990-1999. The catchment area of the RHH is the southern half of the state, or approximately half of the Tasmanian population. The highest incidence (number of separations) and rates for females are in the late 20's age group. The incidence and rates for males are in the early 30's. See Figure 13.

Fig. 13: Self-harm Separations and Rates, RHH, Tasmania, 1990-1999

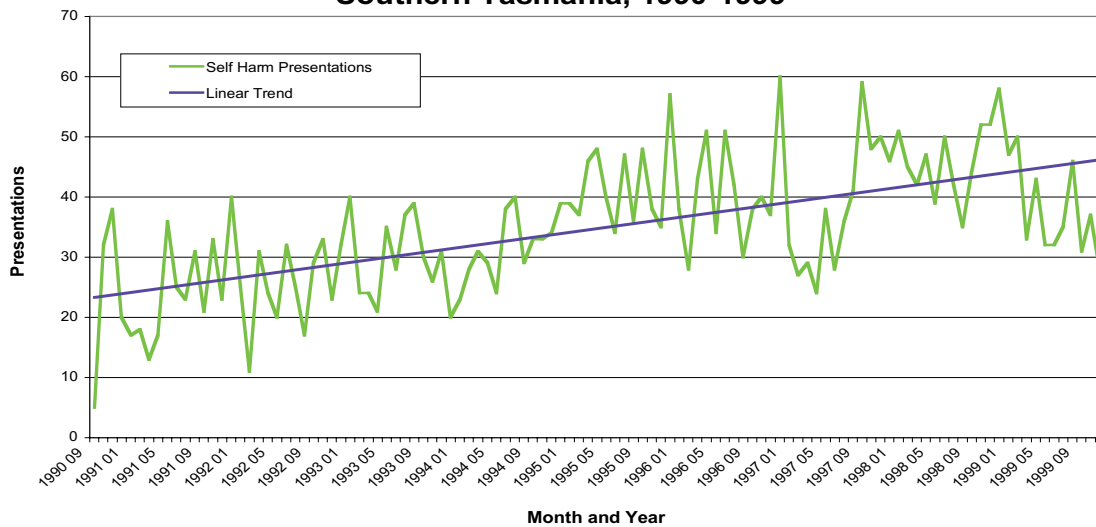


Source: Royal Hobart Hospital – Casemix Unit

Methodological difficulties exist in defining attempted suicide and self-harming behaviours. Studies suggest that self-harming behaviour can be a predictor of later suicide attempt. Severity of attempt is not analysed here. Future studies could examine the extent of medical trauma, disability or morbidity resulting from these cases.

The hospital separations data do not include persons who presented to hospital, but were not admitted. A preliminary analysis of presentations to the Department of Emergency Medicine (also restricted to RHH) examines this data. See Figure 14.

Fig. 14: Self-harm Presentations to RHH DEM with Trend, Southern Tasmania, 1990-1999



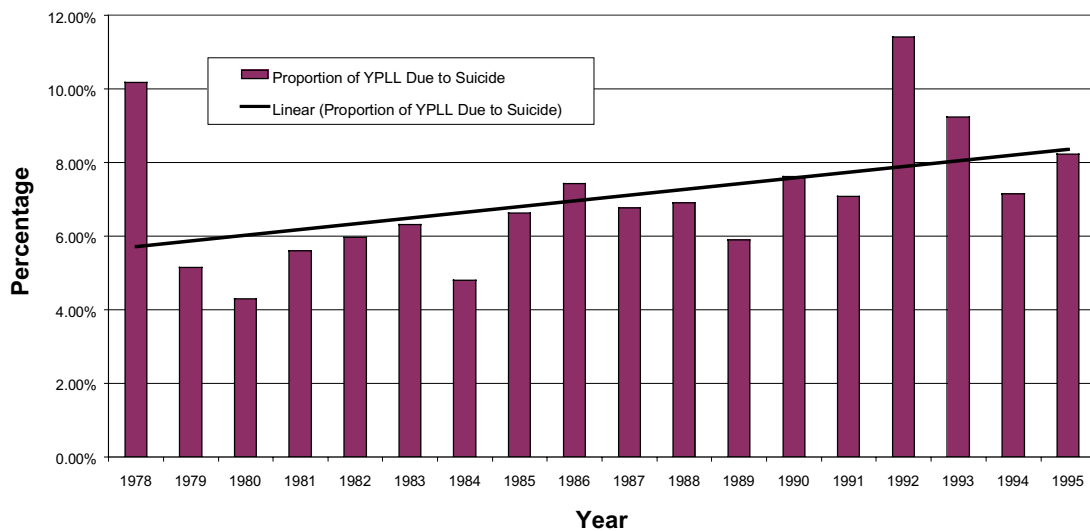
Source: Royal Hobart Hospital - Department of Emergency Medicine

The trend is for the number of self-harm presentations per month to have increased steadily over the period 1990-1999. An examination of the possible factors underlying this trend has yet to be conducted.

The Cost of Suicide

The social cost of premature mortality due to suicide can be estimated in terms of years of potential life lost (YPLL). By assuming an average life-span of 75 years, the number of years lost to premature death can be calculated, and then compared with all premature deaths for a jurisdiction, or other geographical area. Components such as suicide mortality can then be expressed as a proportion of all deaths. Crude YPLLs have been calculated for Tasmania for the period 1978-1995. (Data post-1995 is not currently available). For Tasmania, premature mortality due to suicide now accounts for a little over 10% of all premature mortality. Further, the trend indicates that this proportion may be gradually increasing. See Figure 15.

Fig. 15: Crude YPLL due to Suicide as a Proportion of All Premature Mortality with Trend, Tasmania, 1978-1995

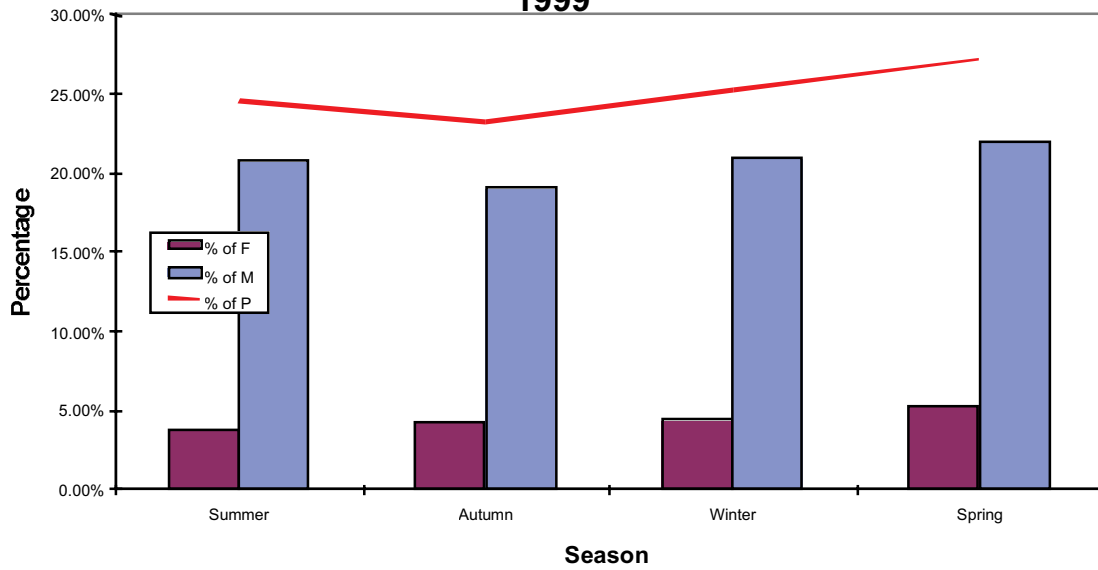


Source: ABS

Seasonal Suicide Incidence

The data for the period 1992-1999 were analysed by month of occurrence and season of occurrence. The data by month of occurrence showed no discernable trends. When that data was aggregated to the seasonal level, there was a slight overall increase in spring, and a slight overall decrease in autumn. The differences were not statistically significant. See Figure 16.

Fig. 16: Suicide by Season of Death, Tasmania, 1992-1999

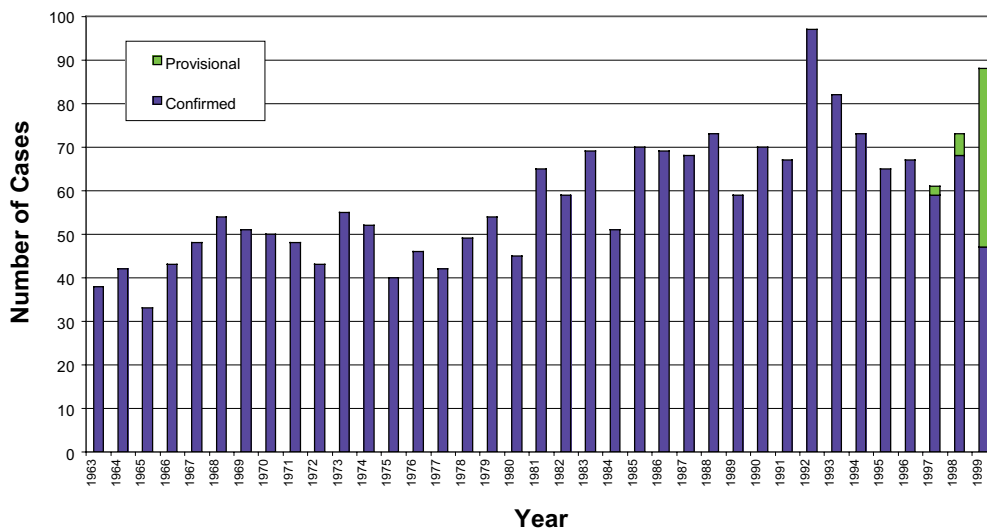


Source: Office of the Coroner (Hobart)

Sources of the Data

The suicide data for the period 1992-1999 has been provided by the Office of the Coroner for Tasmania, and relates to *recorded findings*. For the period 1997-1999, additional coronial data has been included as ‘provisional’ (*sub judice*) findings, based on a high likelihood of a finding of self-inflicted death when the matter comes before a coroner. The number of provisional cases included in this data is shown in Figure 17.

Fig. 17: Confirmed vs Provisional (Sub Judice) Coronial Findings of 'Self-inflicted Death', Tasmania, 1963-1999



Source: ABS; Office of the Coroner (Hobart)

Data for the period 1978-1995 has been provided to the Department of Health and Human Services (DHHS) from the ABS. National morbidity data is collected by the ABS from the registrars of Births, Deaths and Marriages in each jurisdiction, with reportable deaths being investigated by a coroner. Where possible, coronial findings were used in preference to the ABS data for 1992-1995. As discussed above, data for the period 1996-1999 includes an estimate of the likelihood of a finding of *self-inflicted death* for those files which are still awaiting a Coroner's verdict.

Self-harm separations from the public hospital were provided by the DHHS Casemix Unit and self-harm presentations to DEM were provided by the Director of the Department of Emergency Medicine, RHH. Injury data relating to 'undetermined intent' and rates of suicide for Australia (eg elderly, youth) were downloaded from the National Injury Surveillance Unit website.

Cause of death is classified by the ABS according to the International Classification of Diseases (ICD). The 9th revision (ICD9) has been used for death registrations beginning in 1979. ICD9 provides a category for deaths which were investigated (eg by a coroner) without determination of whether they were due to accident, suicide or homicide. This "undetermined intent" category (E980 to E989) is sometimes reported with suicide data because in some cases it may include suicides.

Population data for the calculation of rates were taken from published ABS collections.