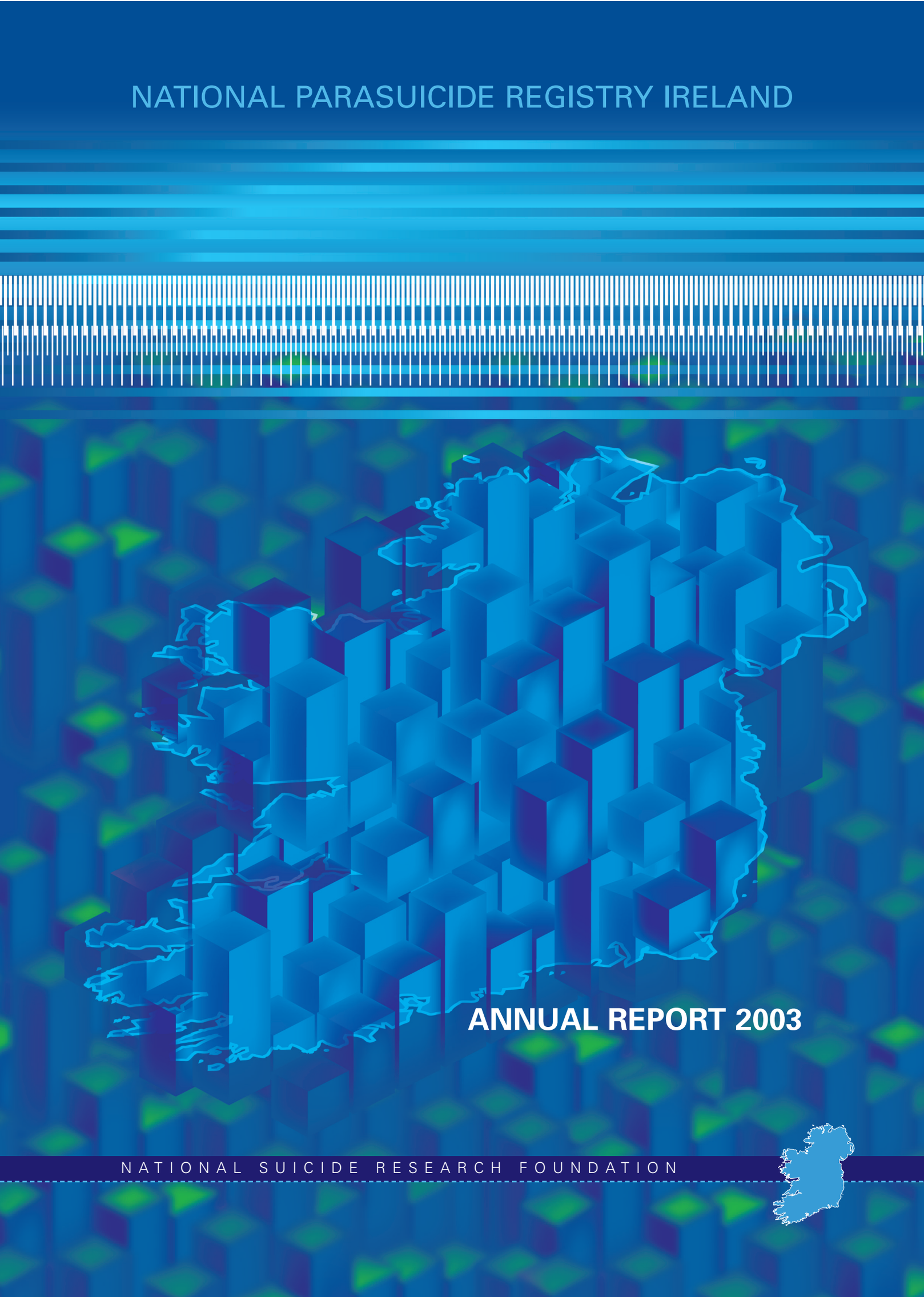
NATIONAL PARASUICIDE REGISTRY IRELAND



ANNUAL REPORT 2003

NATIONAL SUICIDE RESEARCH FOUNDATION

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Introduction and Executive Summary

This is the third annual report from the National Parasuicide Registry. It is based on data collected over the year 2003 on persons presenting to hospital with parasuicide (deliberate self harm). As in 2002, data were collected from each health board region in the Republic of Ireland. There was complete coverage of the Midland, Mid-Western, North Eastern, North Western, South Eastern, Southern and Western Health Board regions and partial coverage of the Eastern Regional Health Authority region. In total, data were collected for the full calendar year from 39 acute hospitals. No data were collected from two general and one paediatric acute hospitals, all within the Eastern Regional Health Authority in 2003. Data were also collected from all 16 Irish prisons and places of detention. As of 2004, the National Parasuicide Registry has secured approval to collect data on deliberate self harm from all acute hospitals in the country.

Based on the near complete coverage of acute hospitals, we estimate that there were approximately 11,200 presentations due to deliberate self harm, involving approximately 8,800 individuals in Ireland in 2003. In the Annual Report 2002, we estimated that there were 10,500 presentations to hospital due to deliberate self harm, involving approximately 8,400 individuals in Ireland in 2002. The age-standardised rate of individuals presenting to hospital in the Republic of Ireland following deliberate self harm in 2003 was 209 per 100,000. This represents a statistically significant 3.6% increase on the rate of 202 per 100,000 in 2002. All but one of the country's health boards experienced an increase in the rate of individuals presenting to hospital as a consequence of deliberate self harm, ranging in magnitude from +1.9% in the Eastern Regional Health Authority to +13.4% in the North Eastern Health Board.

At a national level, the rate of deliberate self harm in men increased significantly by 6.5% from 167 to 177 per 100,000. There was also a marginal increase in the rate of deliberate self harm in women (+1.6%) from 237 to 241 per 100,000. These changes have resulted in a narrowing of the difference between male and female rates of deliberate self harm. The female rate was 36% higher than the male rate in 2003 compared to 42% higher in 2002. The incidence of deliberate self harm exhibited marked variation by geographic area, with higher than average rates among residents of the Midland Health Board and the Eastern Regional Health Authority and lower than average rates among residents of the North Western, Southern and Western Health Boards. City rates of deliberate self harm generally exceeded those of the counties. When county populations were disaggregated to urban and rural district populations, the incidence of deliberate self harm was considerably higher in urban settings. Deliberate self harm was largely confined to the younger age groups. Almost half of all presentations (46.9%) were by people under 30 years of age and 88.9% were by people aged less than 50 years. The peak rate for women in 2003 (as in 2002) was in the 15-19 years age group, at 654 per 100,000, an increase of 5% from 2002. Thus, approximately one in every 150 Irish adolescent girls was treated in hospital in 2003 as a result of deliberate self harm.

Among men, those in the 20-24 years age group were at highest risk, with a rate of 438 per 100,000, which was 8% higher than in 2002. It is a matter of concern that over the last three years we have not detected any evidence of a decrease or plateau in rates of deliberate self harm in young Irish men and women.

Rates of deliberate self harm presentations to hospital by young people vary considerably from year to year at health board level. For example, in 2002, 15-19 year-old girls in the Mid-Western Health Board had a rate of 925 per 100,000, almost 50% higher than the national rate for that age-gender sub-group. In 2003, the rate in 15-19 year-old girls in the Mid-West region was 29% lower at 653 per 100,000, which was close to the national average. By contrast, the incidence of deliberate self harm in 15-19 year-old girls in the Midland Health Board (502 per 100,000) was 20% lower than the national average in 2002 whereas in 2003 the rate increased by 82% to 914 per 100,000. Similarly, there was a more than two-fold (+109%) increase in the deliberate self harm rate among women in the 20-24 years age group in the North Western Health Board region between 2002 and 2003. While much of the year-to-year variation in the incidence of hospital treated deliberate self harm in specific gender and age sub-groups will be due to random statistical variation, this could not account for these observations.

This Annual Report again highlights that repeat presentations to hospital due to deliberate self harm represent a significant problem. In 2003, 21.4% of all deliberate self harm presentations were due to repeat acts. This was somewhat higher than in 2002, when repeat acts accounted for 19.3% of all deliberate self harm presentations. The proportion of deliberate self harm patients who made at least one repeat presentation during the calendar year was 13.8% in 2003, similar to the figure of 13.0% in 2002. A small proportion (1.6%) of patients made at least five deliberate self harm presentations to hospital in 2003. However, these patients accounted for one tenth (9.5%) of all deliberate self harm presentations in the country. The equivalent figures for 2002 showed that such multiple repeaters accounted for 1.4% of all deliberate self harm patients and 7.8% of all presentations. Thus, there is some evidence that repeated deliberate self harm is an increasing problem in Ireland.

As in 2002, drug overdose was the commonest method of self harm, representing 78.5% of all acts registered in 2003. Half of all drug overdose acts involved at least 25 tablets and men generally took more tablets in overdose acts than women. At least 50 tablets were taken by 21.5% of men as compared to 15.2% of women. While it was common for several drugs to be taken in the same act, minor tranquillisers, paracetamol and anti-depressant drugs were involved in 41%, 31% and 24% of deliberate overdoses, respectively. Legislation restricting the sale of paracetamol-containing medicines was enacted in October 2001. While the restrictions were phased in following the enactment of the legislation, we have shown that paracetamol-containing medicines were involved in the same proportion of intentional drug overdose acts in 2003 (31%) as in 2002 (30%). However, further detailed analyses are

required to assess the effects of the Irish legislation on the use of paracetamol in deliberate overdose acts.

Self-cutting was the second commonest method of self harm, used as the main method in almost one in five of all cases (18.0%). Cutting was significantly more common in men (23.0%) than in women (14.3%). With the exception of the UK, the finding that greater numbers of men present to hospital as a result of self-cutting is in sharp contrast with the international literature which reports a female preponderance among people who cut themselves. Further investigation into these gender differences is required. Self-cutting was associated with increased risk of repetition. One in five (19.3%) of individuals who presented as a result of self-cutting made a repeat presentation in 2003 as compared to 12.7% of those who presented due to an intentional drug overdose and 13.8% of all deliberate self harm patients.

Method of self harm was also associated with the next stage of care recommended following treatment in the accident and emergency department. Half of all deliberate self harm cases resulted in admission to a ward of the treating hospital, 12% were admitted for psychiatric inpatient treatment from the accident and emergency department, 7% refused to be admitted, 3% left before next care could be recommended and 28% were discharged following emergency treatment. Thus, the accident and emergency department was the only treatment setting for 38% of all deliberate self harm patients. Referral for general hospital inpatient care was most common following cases of drug overdose and self-poisoning. Half of the patients who used cutting as the main method of self harm were discharged after receiving treatment in the accident and emergency department. As one would expect, the greater the potential lethality of the method of self harm involved, the higher the proportion of cases admitted for psychiatric inpatient care directly from the accident and emergency department. One-third of attempted hangings and drownings, 19% of acts of self-cutting and 8% of drug overdose cases were admitted directly for psychiatric inpatient care.

In 43% of all episodes of deliberate self harm registered in 2003 there was evidence of alcohol consumption. The proportion of patients who used alcohol as part of their act was significantly higher in men (47%) than in women (39%). These levels are similar to those reported for 2002 and continue to highlight the strong association between alcohol consumption and suicidal behaviour. Alcohol may be one of the factors underlying the pattern of presentation with deliberate self harm by time of day and day of week. Presentations peak in the hours around midnight and one-third of all presentations occur on Sundays and Mondays. Given this pattern of hospital presentation, the frequent involvement of alcohol and the finding that 38% of patients are treated exclusively in the accident and emergency department, it is clear that we face a major challenge to ensure that all deliberate self harm patients receive a comprehensive assessment of their needs and appropriate treatment and referral.

It is important that we consider these findings on the incidence and pattern of hospital treated deliberate self harm in Ireland in the context of findings in other countries. Unfortunately as yet, no country has established a national, population based registry of deliberate self harm apart from Ireland. The best available data from outside Ireland is largely from urban centres in the UK. The rates of hospital treated self harm in our urban centres are broadly similar to those observed in the UK.

This Report highlights the challenge deliberate self harm poses for our health system and our society as a whole. Deliberate self harm is a major cause of suffering for individuals and families that requires appropriate and targeted responses from our health system. It is also a potent symptom or indicator of the mental health of our population, the tip of an iceberg of mental distress. Since an act of deliberate self harm is an important predictor of repeated non-fatal and fatal suicidal behaviour, prevention of repetition should be prioritised in referral procedures and treatment of those who have engaged in deliberate self harm. We also need to better understand the fundamental family, social, cultural, economic, educational and other determinants of poor mental health and suicidal behaviour in our population. In Ireland the level of discussion and openness on mental health issues, including deliberate self harm and suicide has increased in recent years. This is a welcome development. However, we need to ensure that public discussion and media coverage of suicide and deliberate self harm remains measured, well informed and sensitive to the needs and well being of psychologically vulnerable and distressed individuals in our society. In particular, we need to continue to work as a society to create a culture and environment where people in psychological distress feel able to seek help from family, friends and health professionals.

Ivan J Perry
Professor of Epidemiology and Public Health, University College, Cork
Director, National Parasuicide Registry, National Suicide Research Foundation, Cork

Methodology

BACKGROUND

The National Parasuicide Registry is a national system of population monitoring for the occurrence of deliberate self harm. It has been established, at the request of the Department of Health and Children, by the National Suicide Research Foundation.

The National Suicide Research Foundation was founded in January 1995 by the late Dr Michael J Kelleher and currently operates under the Medical Directorship of Dr Margaret Kelleher, the Research Directorship of Dr Ella Arensman and Professor Ivan J Perry as Director of the National Parasuicide Registry. The primary aims of the Foundation are to define the true extent of the problem of suicidal behaviour in Ireland, to identify and measure the factors which induce and protect against suicidal behaviour; and to develop strategies for the prevention of suicidal behaviour. The Foundation is recognised by the European Regional Office of the WHO as the centre of excellence in suicidology in Ireland and it is a member of the WHO European Network on Suicide Research and Prevention.

DEFINITION OF PARASUICIDE

The following definition of parasuicide, developed by the WHO/Euro Multicentre Study Working Group, is used in the data collection system of the Registry: 'an act with non-fatal outcome in which an individual deliberately initiates a non-habitual behaviour, that without intervention from others will cause self harm, or deliberately ingests a substance in excess of the prescribed or generally recognised therapeutic dosage, and which is aimed at realising changes that the person desires via the actual or expected physical consequences'. This definition includes acts involving varying levels of suicidal intent including definite suicide attempts and acts where the individual had little or no intention of dying and where other motives such as loss of control, cry for help or self-punishment were primarily associated with the act of deliberate self harm. Internationally, the term parasuicide is being superseded by the term 'deliberate self harm'. In recognition of this, we use the term 'deliberate self harm' in this Report.

INCLUSION CRITERIA

- All methods of self harm are included i.e., drug overdoses, alcohol overdoses, lacerations, attempted drownings, attempted hangings, gunshot wounds, etc. where it is clear that the self harm was intentionally inflicted.
- All individuals who are alive on admission to hospital following a deliberate self harm act are included.

EXCLUSION CRITERIA

The following cases are NOT considered to be deliberate self harm:

- Accidental overdoses e.g., an individual who takes additional medication in the case of illness, without any intention to self harm.
- Alcohol overdoses alone where the intention was not to self harm.
- Accidental overdoses of street drugs i.e., drugs used for recreational purposes, without the intention to self harm.
- Individuals who are dead on arrival at hospital as a result of suicide.

DATA RECORDING

All data are collected on pre-printed optically scannable forms. These forms are entered centrally at the National Suicide Research Foundation using high resolution optical character recognition software based on an integrated survey design and data capture system.

DATA ITEMS

A minimal dataset has been developed to determine the extent of deliberate self harm, the circumstances relating to both the act and the individual and to examine trends by area. While the data items below will enable the system to avoid duplicate recording and to recognise repeat acts of deliberate self harm by the same individual, they

ensure that it is impossible to identify an individual on the basis of the data recorded.

Entry number
Each of the registry forms is pre-printed with an entry number.

Initials
Initials of an individual deliberate self harm patient are recorded solely for the purposes of avoiding duplication and ensuring that repeat episodes are recognised. Initials are recorded in an encoded format so as to ensure that an individual cannot be identified.

Gender
Male or female gender is recorded when known.

Date of birth
Date of birth is recorded in an encoded format to further protect the identity of the individual. As well as being used to identify repeat deliberate self harm presentations by the same individual, date of birth is used to calculate age. In the rare cases where the date of birth is not available, age is recorded.

Area of residence
Data collectors recode presentation addresses to the appropriate Electoral Division and these are encoded numerically on the monitoring form.

Date and hour of attendance at hospital

Method(s) of self harm
The method(s) of self harm are recorded according to the 10th Revision of the WHO's International Classification of Diseases codes for intentional injury (X60-X84). The main methods are overdoses of drugs and medicaments (X60-X64), self-poisonings by alcohol (X65), poisonings which involve the ingestion of chemicals, noxious substances, gases and vapours (X66-X69) and self harm by hanging (X70), by drowning (X71) and by sharp object (X78). Some individuals may use a combination of methods e.g., overdose of medications and laceration of wrists. In this report, results generally relate to the 'primary method' of self harm. In keeping with standards recommended by the WHO/Euro Study on Suicidal Behaviour, this is taken as the most lethal method employed.

Drugs taken
Where applicable, the name and quantity of the drugs taken are recorded.

Medical card status
Whether the individual presenting has a medical card or not is recorded.

Seen by
For general hospital treated cases, this indicates the different disciplines involved in the initial treatment of the presentation.

Recommended next care
Recommended next care following treatment in the hospital accident and emergency department is recorded.

CONFIDENTIALITY

Confidentiality is strictly maintained. The National Suicide Research Foundation is registered with the Data Protection Agency and complies with the Irish Data Protection Act of 1988. Only anonymised data are released in aggregate form in reports. The names and addresses of patients are not recorded.

ETHICAL APPROVAL

Ethical approval has been granted by the National Research Ethics Committee of the Faculty of Public Health Medicine. The Registry has also received ethical approval from the relevant ethics committees with responsibility for the individual hospitals and health boards.

REGISTRY COVERAGE

In 2003, deliberate self harm data were collected from each health board region in the Republic of Ireland (pop: 3,978,862).

There was complete coverage of the Midland Health Board (pop: 230,296), which covers the whole of the counties of Laois, Longford, Offaly and Westmeath. Deliberate self harm data were collected from the Midland Regional Hospital at Mullingar (formerly known as Longford/Westmeath General Hospital), Midland Regional Hospital at Portlaoise (formerly known as Portlaoise General Hospital), Midland Regional Hospital at Tullamore (formerly known as Tullamore General Hospital), St

Joseph's Hospital Longford and St Vincent's Hospital Athlone.

There was complete coverage of the Mid-Western Health Board (pop: 342,221), which covers the whole of the counties of Clare, Limerick and Tipperary North Riding. Deliberate self harm data were collected from the Mid-Western Regional Hospital Limerick, Ennis General Hospital, Nenagh General Hospital and St John's Hospital Limerick.

There was complete coverage of the North Eastern Health Board (pop: 350,050), which covers the whole of the counties of Louth, Meath, Cavan and Monaghan. Deliberate self harm data were collected from Cavan General Hospital, Louth County Hospital Dundalk, Monaghan General Hospital, Our Lady's Hospital Navan and Our Lady of Lourdes Hospital Drogheda.

There was complete coverage of the North Western Health Board (pop: 224,835), which covers the counties of Leitrim, Sligo and Donegal. Deliberate self harm data were collected from Letterkenny General Hospital and Sligo General Hospital.

There was complete coverage of the South Eastern Health Board (pop: 431,679), which covers the whole of the counties of Carlow, Kilkenny, Wexford, Waterford and the South Riding of Tipperary. Deliberate self harm data were collected from Our Lady's Hospital Cashel, St Joseph's Hospital Clonmel, St Luke's Hospital Kilkenny, Waterford Regional Hospital and Wexford General Hospital.

There was complete coverage of the Southern Health Board (pop: 588,585), which covers the whole of the counties of Cork and Kerry. Deliberate self harm data were collected from Cork University Hospital, Mercy University Hospital and Southern Infirmary in Cork City and from Tralee, Bantry and Mallow General Hospitals.

There was complete coverage of the Western Health Board (pop: 388,204), which covers the whole of the counties of Galway, Mayo and Roscommon. Deliberate self harm data were collected from University College Hospital Galway, Mayo General Hospital Castlebar, Portiuncula Hospital Ballinasloe and Roscommon County Hospital.

There was partial coverage of the Eastern Regional Health Authority (pop: 1,422,992), which covers the whole of the counties of Dublin, Kildare and Wicklow. Deliberate self harm data were collected for the full calendar year from the Adelaide and Meath Hospital including the National Children's Hospital, Beaumont Hospital, James Connolly Memorial Hospital Blanchardstown, Naas General Hospital, St Columcille's Hospital Loughlinstown, St Michael's Hospital Dun-Laoghaire and Temple Street Children's University Hospital and another hospital whose ethics committee stipulated that it should not be named in Registry reports. No data were collected from the Mater Misericordiae University Hospital, Dublin, Our Lady's Hospital for Sick Children, Crumlin or St James' Hospital, Dublin. Data collection is now underway in St James' Hospital.

Thus, in total, deliberate self harm data were collected for the full calendar year from 39 acute hospitals (one of which included both an adult and a paediatric accident and emergency department).

Deliberate self harm data were also collected from the 16 Irish prisons and places of detention: Arbour Hill Prison, Castlerea Prison, Cloverhill Prison, Cork Prison, Curragh Place of Detention, Dochas Centre, Fort Mitchel Place of Detention, Limerick Prison, Loughan House, Midlands Prison, Mountjoy Prison, Portlaoise Prison, Shelton Abbey, St Patrick's Institution, Training Unit and Wheatfield Prison.

EXTRAPOLATED DATA

As noted above there was partial coverage of the hospitals within the Eastern Regional Health Authority in 2003. We therefore had to extrapolate from these data in order to estimate numbers and rates of deliberate self harm for the Eastern Region and the country as a whole.

There were three hospitals for which no data were collected in 2003. We had information on the number of accident and emergency attendances in each of these hospitals. Based on the ratio of accident and emergency attendances with deliberate self harm to all accident and emergency attendances from the other hospitals in the Eastern Regional Health Authority, we estimated the number of attendances with deliberate self harm in each of these three hospitals. The number of individuals who presented with deliberate self

harm was estimated by applying the ratio of presentations to individuals derived from the data from the Eastern Region hospitals.

POPULATION DATA

As far as possible, the Central Statistics Office population estimates for 2003 were utilised in this Annual Report. These estimates provide age-sex-specific population data nationally and by planning region. Some planning regions correspond exactly with health board regions. Where this was not the case, the health board population was estimated as follows: the planning region containing the highest proportion of the health board's population was identified; the percentage change between this planning region's population according to the census in 2002 and the official estimates for 2003 was calculated; this percentage change was applied to the health board's census 2002 population data. For smaller geographic units than health board regions, i.e. counties and urban/rural districts, census 2002 population data were utilised.

CALCULATION OF RATES

Deliberate self harm rates were calculated based on the number of persons resident in the relevant area who engaged in deliberate self harm irrespective of whether they were treated in that area or elsewhere.

Crude and age-specific rates per 100,000 population were calculated by dividing the number of persons who engaged in deliberate self harm (n) by the relevant population figure (p) and multiplying the result by 100,000, i.e. (n / p) * 100,000.

European age-standardised rates (EASRs) are the incidence rates that would be observed if the population under study had the same age-composition as a theoretical European population. Adjusting for the age-composition of the population under study ensures that differences observed by gender or by area are due to differences in the incidence of deliberate self harm rather than differences in the composition of the populations. EASRs were calculated as follows: For each five-year age group, the number of persons who engaged in deliberate self harm was divided by the population at risk and then multiplied by the number in the European standard population. The EASR is the sum of these age-specific figures.

Crude, age-specific and EASRs of suicide were calculated as described above.

In order to contrast patterns of deliberate self harm with those of suicide, the latter was analysed over the most recent five year period for which data were available. These data comprised suicides registered by the Central Statistics Office in the years 1999 to 2003. The longer time span was taken because of the relative infrequency of suicide.

A NOTE ON SMALL NUMBERS

Calculated rates that are based on less than 20 events are an inherently unreliable measure of the underlying rate. In addition, suicide and deliberate self harm events should not be considered independent of one another, although these assumptions are used in the calculation of confidence intervals, in the absence of any clear knowledge of the relationship between these events.

A NOTE ON CONFIDENCE INTERVALS

Confidence intervals provide us with a margin of error within which underlying rates may be presumed to fall on the basis of observed data. Confidence intervals assume that the event rate (n / p) is small and that the events are independent of one another. A 95% confidence interval for the number of events (n), is $n +/- 2\sqrt{n}$. For example, if 25 admissions are observed in a specific region in one year, then the 95% confidence interval will be 25 +/- 2√25 or 15 to 35. Thus, the 95% confidence interval around a rate ranges from $(n - 2\sqrt{n}) / p$ to $(n + 2\sqrt{n}) / p$, where p is the population at risk. If the rate is expressed per 100,000 population, then these quantities must be multiplied by 100,000.

A 95% confidence interval may be calculated to establish whether two rates differ statistically significantly. The difference between the rates is calculated. The 95% confidence interval for this rate difference (rd) ranges from $rd - 2\sqrt{(n_1 / p_1^2 + n_2 / p_2^2)}$ to $rd + 2\sqrt{(n_1 / p_1^2 + n_2 / p_2^2)}$. If the rates were expressed per 100,000 population, then $2\sqrt{(n_1 / p_1^2 + n_2 / p_2^2)}$ must be multiplied by 100,000 before being added to and subtracted from the rate difference. If zero is outside of the range of the 95% confidence interval, then the difference between the rates is statistically significant.

Acknowledgements

The following is the team of people who collected the data that formed the basis of this Annual Report. Their efforts are greatly appreciated.

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Catherine Murphy

North Eastern Health Board
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Sabrina Coyle

North Western Health Board

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Sharon Kelly	Sligo

South Eastern Health Board
Breda Brennan

Southern Health Board

Ursula Burke	Cork City
Benita Sydes	Bantry, Mallow and Tralee
Una Walsh	Cork City

Western Health Board
Mary Nix

Eastern Regional Health Authority

Liisa Aula	East Coast Area Board
Grace Boon	Northern Area Board
Tim Mulvey	Northern Area Board
Caroline McTurk	South Western Area Board

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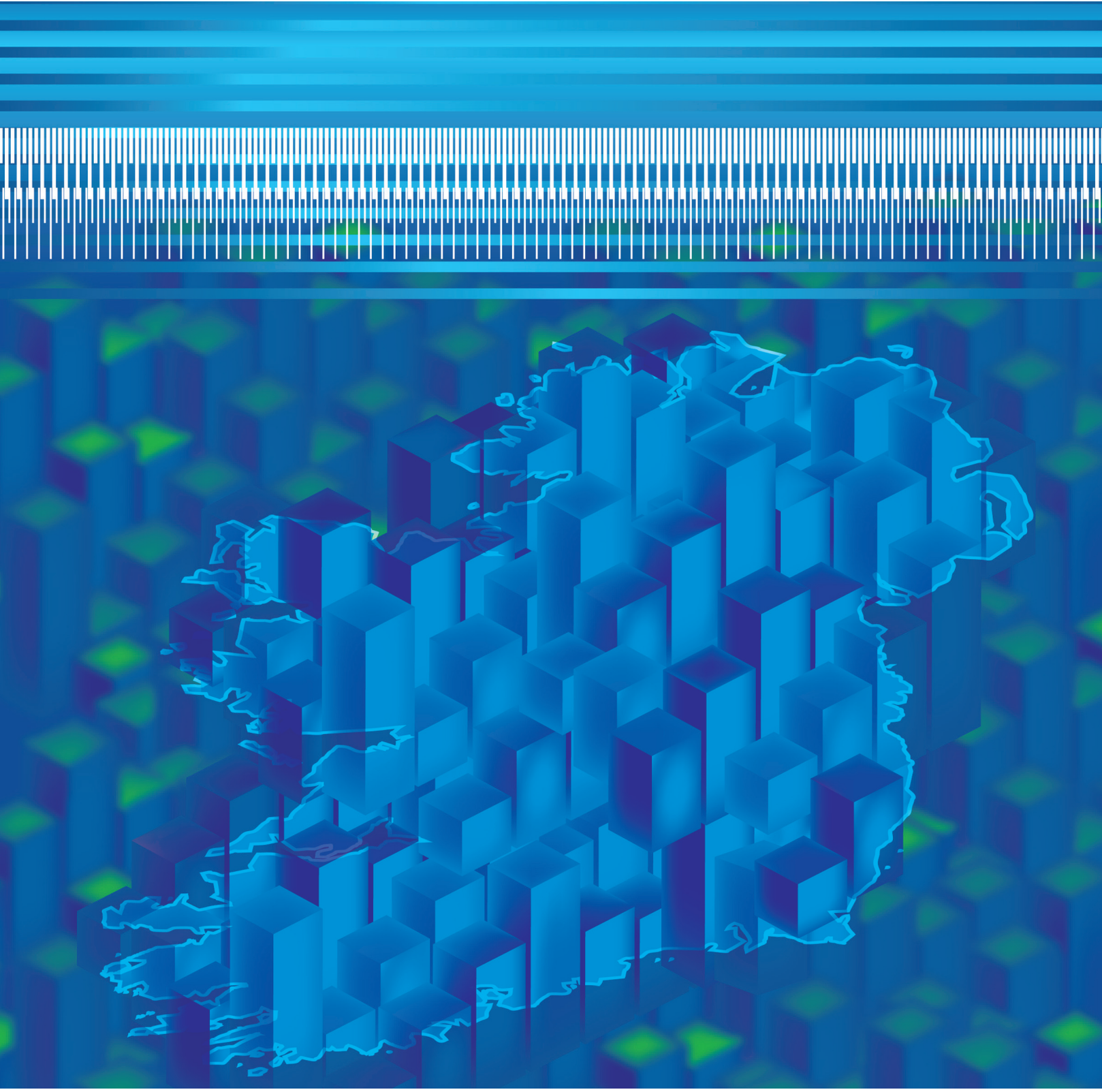
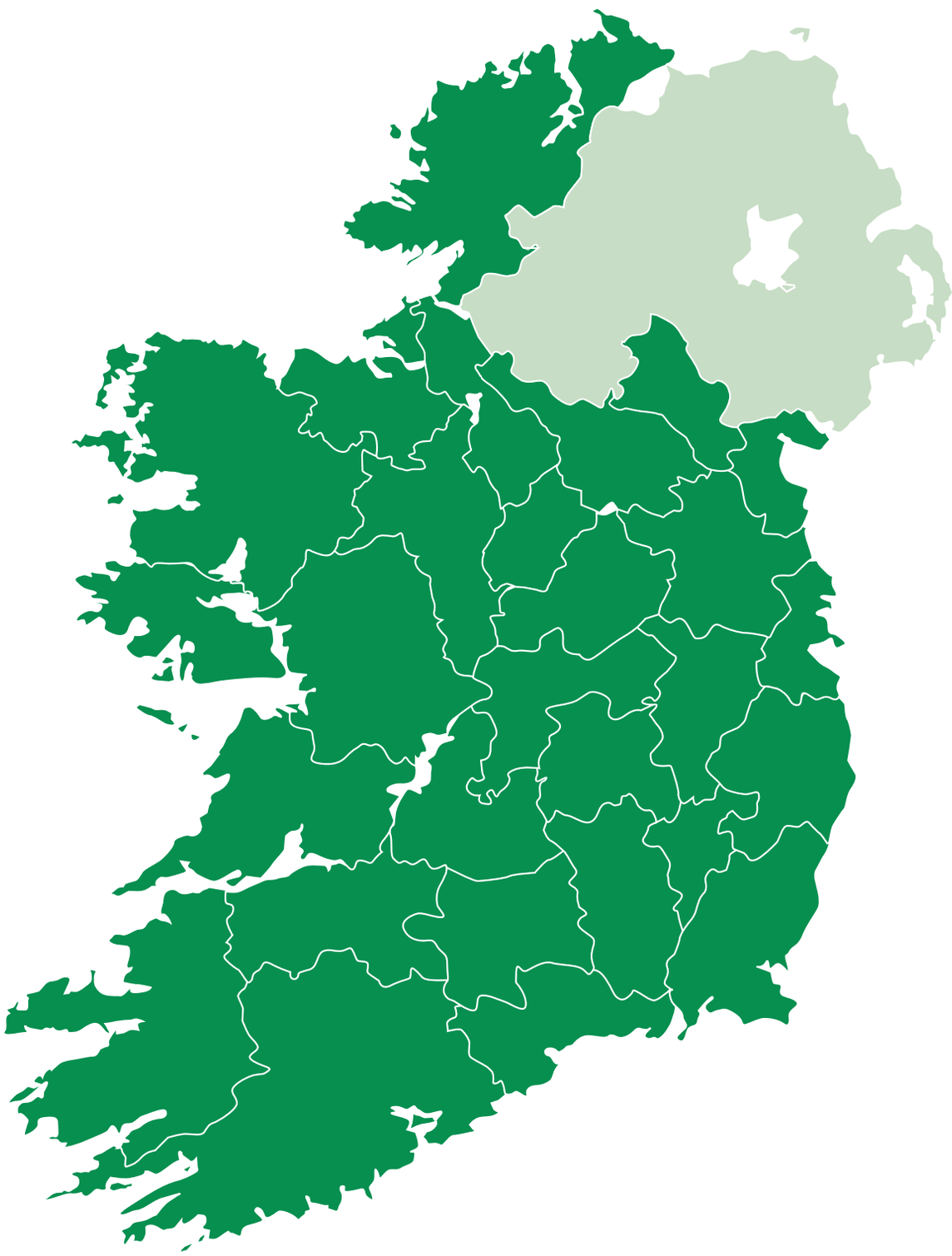
This Report has been compiled by Paul Corcoran and Rachel Farrow with supervision, support and input from Ivan J Perry, Ella Arensman, Harry Comber, Helen Keeley, Eileen Williamson and the Data Registration Officers.



DELIBERATE SELF HARM IN THE REPUBLIC OF IRELAND

NATIONAL SUICIDE RESEARCH FOUNDATION

Deliberate Self Harm in the Republic of Ireland



I. Hospital Presentations

Over the period from 1 January to 31 December 2003, the Registry recorded 9,839 deliberate self harm presentations to hospital that were made by 7,825 individuals. Extrapolating to account for the partial coverage of the Eastern Regional Health Authority indicates that there were 11,204 deliberate self harm presentations by 8,805 individuals in the country as a whole. These numbers reflect increases of 4.6% and 6.3% on the number of individuals (8,421) and episodes (10,537) estimated to have been treated in 2002. The European age-standardised rate of individuals presenting to hospital in the Republic of Ireland following deliberate self harm in 2003 was 209 (95% Confidence Interval (CI): 204 to 214) per 100,000. This was a 3.6% increase on the equivalent rate of 202 (95% CI: 197 to 206) per 100,000 in 2002. The rate difference was 7 (95% CI: 1 to 14) per 100,000. This indicates that, adjusting for age, the rate of individuals presenting to hospital in Ireland following deliberate self harm was significantly higher in 2003 than it was in 2002. The incidence of deliberate self harm in Ireland is examined in detail in Part II of the Report.

The numbers of deliberate self harm episodes treated in the Republic of Ireland by health board, age and sex are given in Appendix IE-1, below. Of the 9,839 recorded presentations in 2003, 4,187 (42.6%) were made by 3,354 men and 5,651 (57.4%) were made by 4,470 women (gender was unknown in one case). Deliberate self harm episodes were generally confined to the younger age groups. Almost half of all presentations (46.9%) were by people under 30 years of age and 88.9% were by people aged less than 50 years. In most age groups the number of acts by women exceeded the number by men. This was most pronounced in the 10-19 year age group where there were 2.4 times as many acts by women (499 by men and 1,189 by women). A notable exception to this female preponderance was in the 30-34 year age group where there were marginally more episodes by men than by women (641 by men and 630 by women).

Two-hundred and forty-eight (2.5%) of the 9,839 episodes of deliberate self harm were by residents of homeless hostels and people of no fixed abode, 184 (1.9%) by hospital inpatients and 59 (0.6%) by prisoners.

DELIBERATE SELF HARM BY HEALTH BOARD/AUTHORITY

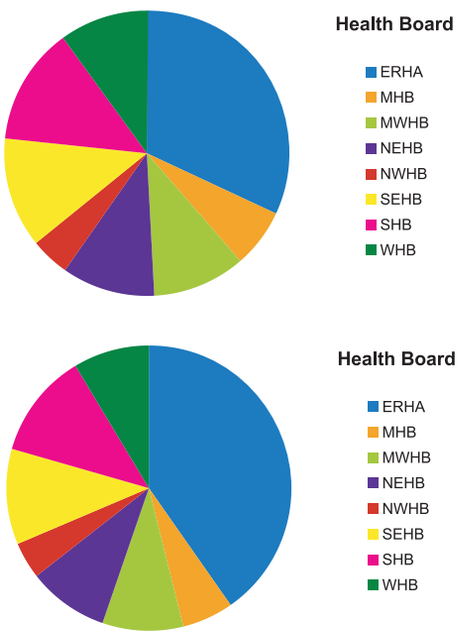


Figure IE 1: The distribution of episodes between health boards and authorities in the Republic of Ireland. The upper chart illustrates the distribution arising from the Registry's actual monitoring of the hospitals. A full-year estimate for the partially monitored Eastern Regional Health Authority is incorporated into the lower chart.

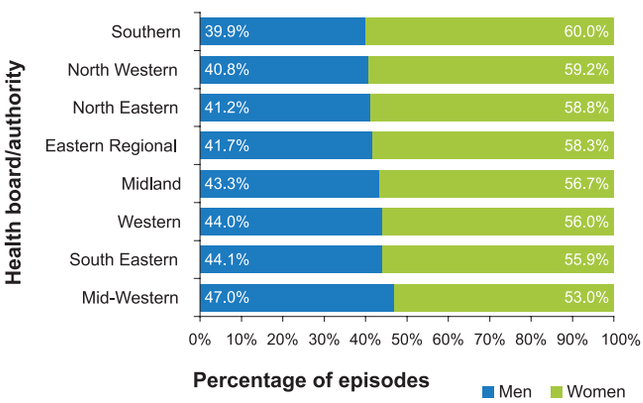


Figure IE 2: Gender balance of deliberate self harm episodes treated by health board/authority.

Despite partial coverage of the region in 2003, deliberate self harm presentations in the Eastern Regional Health Authority accounted for 32.0% of all episodes recorded by the Registry. Extrapolating to a full-year estimate indicated that 40.2% of all deliberate self harm presentations in the country were treated at a hospital within the Eastern Region. Adjusting for this estimate, the proportion of cases treated by the other health boards ranged from 4.1% in the North Western, to 5.9% in the Midland, 8.7% in the Western, 9.1% in the North Eastern, 9.2% in the Mid-Western, 10.9% in the South Eastern and 11.8% in the Southern. Based on figures acquired from either the relevant health board or authority or the individual hospitals, deliberate self harm accounted for 0.95% of total attendances to accident and emergency services in the country. This percentage of attendances accounted for by deliberate self harm varied by health board/authority from 0.65% in the Midland, to 0.80% in the North Western, 0.83% in the Western, 085 in the Southern, 0.90% in the South Eastern, 0.99% in the North Eastern and Mid-Western and 1.07% in the Eastern Region.

The gender balance of recorded episodes (at 42.6% men to 57.4% women) varied by region (Figure IE 2). Female episodes always outnumbered male episodes. This was most pronounced in the Southern and North Western Health Boards and least pronounced in the Mid-Western Health Board.

EPISODES BY TIME OF OCCURRENCE

Variation by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Men	389	325	364	319	330	362	352	367	354	358	353	314	4187
Women	553	416	498	456	478	455	437	462	459	491	504	442	5651
Total	942	741	862	775	808	817	789	829	813	849	858*	756	9839

* Gender was unknown for a case in November

Table IE 1: Number of episodes by month for men and women.

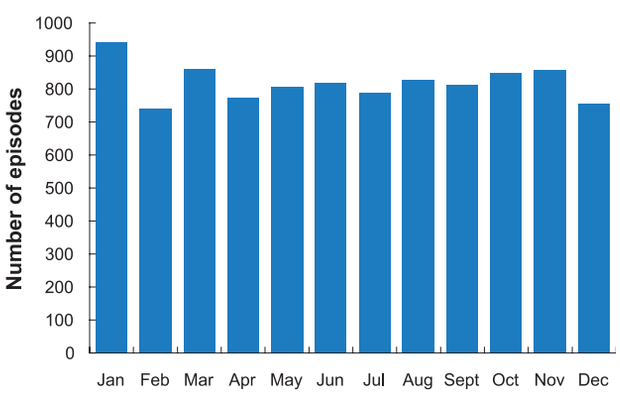


Figure IE 3: Number of episodes by month of occurrence.

The monthly average number of episodes of deliberate self harm treated at the hospitals monitored for all of 2003 was 820. Accounting for the number of days in each calendar month, the number of deliberate self harm presentations was at least 5% from the number expected in the months of January (+12.7%), July (-5.6%), November (+6.1%) and December (-9.5%). The January peak was evident for both genders (+9.4% for men, +15.2% for women) as was the December trough (-11.7% for men, -7.9% for women).

For each health board/authority region in the country, Table IE 2 indicates the months in which the number of deliberate self harm presentations was at least 15% above or below the number expected. In four regions such an excess of presentations was observed in January while five regions experienced at least 15% fewer presentations than expected in December.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MHB	+				-				-		+	-
MWHB	+	+	+				-				+	-
NEHB		-										-
NWHB			+			+						
SEHB						+						-
SHB	+											
WHB		-						+				-
ERHA	+						-					

Table IE 2: Months with at least 15% more or fewer deliberate self harm presentations than expected by health board/authority.

Variation by Day

	Monday	Tuesday	Wed'day	Thursday	Friday	Saturday	Sunday	Total
Men	653	573	600	581	534	570	676	4187
	(15.6%)	(13.7%)	(14.3%)	(13.9%)	(12.8%)	(13.6%)	(16.1%)	(100%)
Women	955	739	727	733	743	778	974	5649
	(16.9%)	(13.1%)	(12.9%)	(13.0%)	(13.2%)	(13.8%)	(17.2%)	(100%)
Total	1608	1312	1328*	1314	1277	1348	1650	9837*
	(16.3%)	(13.3%)	(13.5%)	(13.4%)	(13.0%)	(13.7%)	(16.8%)	(100%)

* Gender was unknown for a case that presented on a Wednesday. There were two cases where the day of presentation was unknown which are not included in the table.
Note: On average, each day would be expected to account for 14.3% of presentations

Table IE 3: Number of episodes by weekday for men and women.

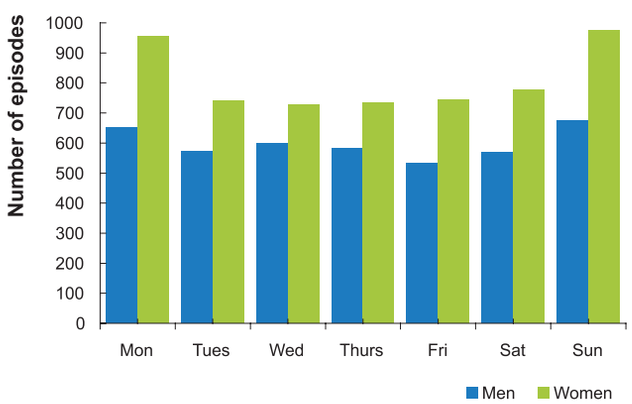


Figure IE 4: Number of episodes by weekday.

Variation by Hour

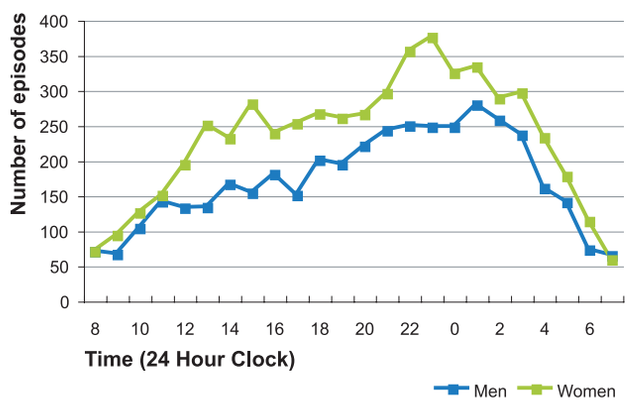


Figure IE 5: Number of episodes by time of attendance.

The number of deliberate self harm presentations was highest on Mondays and Sundays. There was a clear pattern over the course of the week. Numbers fell after Monday to a low during midweek before rising again as Sunday approached. This pattern of the number of presentations by day of the week was more pronounced in women than in men.

There was a striking pattern in the number of deliberate self harm presentations seen over the course of the day. The numbers for both men and women gradually increased during the day and peaked during the night and in the early hours of the morning. The number of presentations was high over the period from 8pm to 4am. During this eight hour period, almost half (46.8%) of the total number of presentations were made. This contrasts with the quietest eight hour period of the day, from 5am to 1pm, which accounted for just 18.5% of all presentations.

METHOD OF SELF HARM[1]

	Overdose	Alcohol	Poisoning	Hanging	Drowning	Cutting	Other	Total
Men	2682	24	115	141	130	965	130	4187
	(64.1%)	(0.6%)	(2.7%)	(3.4%)	(3.1%)	(23.0%)	(3.1%)	(100%)
Women	4510	18	79	69	81	808	86	5651
	(79.8%)	(0.3%)	(1.4%)	(1.2%)	(1.4%)	(14.3%)	(1.5%)	(100%)
Total	7192	42	194	210	211	1774*	216	9839*
	(73.1%)	(0.4%)	(2.0%)	(2.1%)	(2.1%)	(18.0%)	(2.2%)	(100%)

* Gender was unknown in one case of self-cutting.

Table IE 4: Number of episodes by most lethal method and gender.

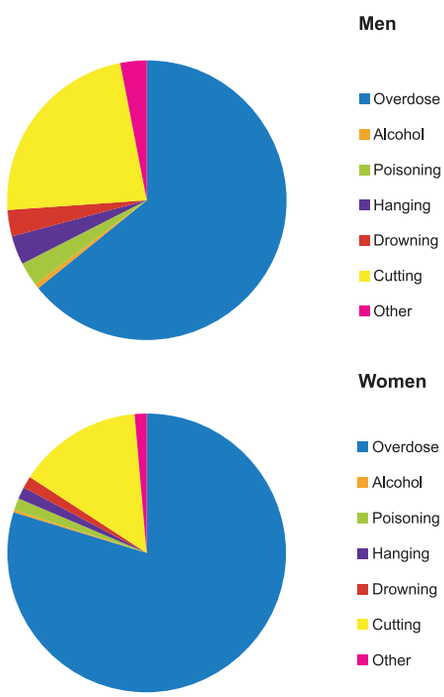


Figure IE 6 : The overall distribution of the most lethal method of self harm used in the country.

Almost three quarters (73.1%) of all deliberate self harm episodes involved an overdose of medication as the most lethal method of self harm employed. Drug overdose was more commonly used as a method of self harm by women than by men (64.1% of male episodes and 79.8% of female episodes). When consideration was also given to overdose as a secondary method, its frequency increased to 78.5% of all cases (70.2% of male episodes and 84.6% of female episodes). While rare as a main method of self harm, alcohol was involved in 42.6% (4,195) of all cases. Alcohol was significantly more common in male deliberate self harm episodes (1,984, 47.4%) than in female episodes (2,211, 39.1%). Cutting was the only other common method of self harm, used as the main method in almost one in five of all cases (1,774, 18.0%). Cutting was significantly more common in men (965, 23.0%) than in women (808, 14.3%).

1 It is not unusual for more than one method to be involved in an individual act of deliberate self harm. Here, results relate to the 'primary method' of deliberate self harm. In keeping with standards recommended by the WHO/Euro Study on Suicidal Behaviour, this is taken, in any individual case, as the most lethal method employed.

DRUGS USED IN OVERDOSE

The total number of tablets taken was known in 5,676 (73.5%) of the 7,722 cases of drug overdose. On average, 32 tablets were taken in the episodes of deliberate self harm that involved drug overdose. One quarter of drug overdose acts involved less than 14 tablets, half involved less than 24 tablets and three-quarters involved less than 40 tablets. The number of tablets taken varied by gender with men, on average, taking more (mean = 35) than women (mean = 30). Figure IE 7 illustrates the pattern in the number of tablets taken in drug overdose episodes for both genders. Half (51.1%) of the female episodes and 45.7% of the male episodes of overdose involved 10-29 tablets. At least 50 tablets were taken by 21.5% of men as compared to 15.2% of women.

Figure IE 8 illustrates the frequency with which the most common types of drugs were used in overdose. 40.9% of all overdoses involved a minor tranquilliser and such a drug was used marginally more often by men than by women. A major tranquilliser was involved in 10.1% of overdoses. Half (50.2%) of all female overdose acts and 39.5% of male acts involved an analgesic drug. Paracetamol was the most common analgesic drug taken, being involved in some form in 30.9% of drug overdose acts. Paracetamol was used significantly more often by women (34.5%) than by men (25.0%). One in four acts (24.0%) of deliberate overdose involved an anti-depressant/mood stabiliser. The group of anti-depressant drugs known as Selective Serotonin Reuptake Inhibitors (SSRIs) were present in 13.4% of overdose cases. 'Other prescribed drugs' were taken in one in four (25.2%) of all overdoses which reflects the wide range of drugs taken deliberately in acts of drug overdose.

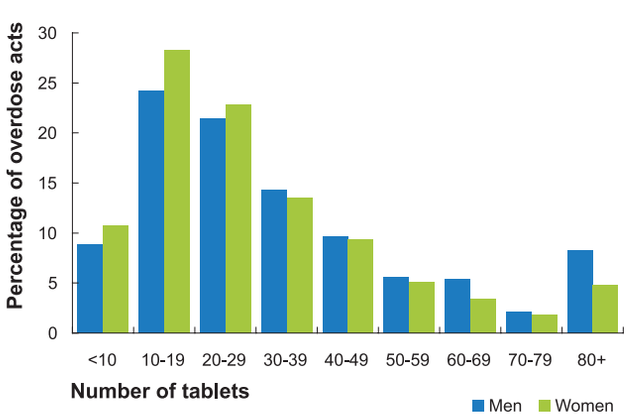
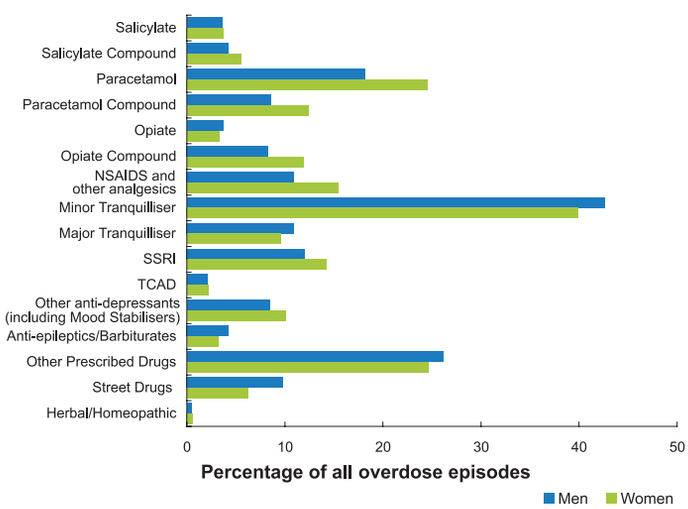


Figure IE 7: The pattern of the number of tablets taken in male and female acts of drug overdose.



Note: Some drugs (eg compounds containing paracetamol and an opiate) are counted in two categories.

***Figure IE 8:** The variation in the type of drugs used in the Republic of Ireland.*

RECOMMENDED NEXT CARE

Of the 9,839 deliberate self harm presentations recorded in 2003, there were 298 cases (3.0%) where the individual left the accident and emergency department before a next care recommendation could be made. In more than half of these cases (155, 52.0%), it was known that the individual left before being treated. Following their treatment in the accident and emergency department, inpatient admission was the next stage of care recommended for 69.0%, irrespective of whether general or psychiatric admission was intended and whether the patient refused or not. Half of all deliberate self harm cases resulted in admission to a ward of the treating hospital whereas 11.8% were admitted for psychiatric inpatient treatment from the accident and emergency department. This percentage is an underestimate of the percentage of all deliberate self harm cases admitted for psychiatric inpatient care as some of those admitted to a general hospital ward will be subsequently admitted as psychiatric inpatients[2]. In 7.2% of the deliberate self harm episodes, the patient refused to allow him/herself to be admitted whether for general or psychiatric care. More than a quarter of all cases were discharged following treatment in the accident and emergency department[3].

Next care recommendations varied significantly by gender. Women were more often admitted to a ward of the treating hospital (52.0% of women compared to 47.1% of men). Admission to psychiatric inpatient care from the accident and emergency department followed male acts more often than female acts (14.0% of men compared to 10.2% of women). Men were marginally more likely to have either refused to be admitted (7.9% vs. 6.7%) or left the emergency room before a recommendation was made (3.7% vs. 2.5%). The greater frequency of general inpatient care in women may be related to their greater use of drug overdose as a method of self harm. As can be seen from Table IE 5, recommended next care varied according to the main method of self harm. General inpatient care was most common following cases of drug overdose and self-poisoning and least common after attempted hanging, drowning and self-cutting. The latter finding may be a reflection of the superficial nature of the injuries sustained in some cases of attempted hanging, drowning and cutting. Of those cases where the patient used cutting as the main method of self harm, half (49.8%) were discharged after receiving treatment in the accident and emergency department. The greater the potential lethality of the method of self harm

	Overdose (n=7183*)	Alcohol (n=42)	Poisoning (n=194)	Hanging (n=210)	Drowning (n=211)	Cutting (n=1771*)	Other (n=216)	Total (n=9827*)
General admission	58.8%	54.8%	56.2%	25.7%	31.8%	20.6%	31.0%	49.9%
Psychiatric admission	8.0%	2.4%	17.0%	34.8%	31.3%	18.9%	34.7%	11.8%
Patient would not allow admission	7.2%	9.5%	6.2%	7.1%	7.6%	7.2%	9.3%	7.2%
Left before recommendation	2.9%	4.8%	2.6%	1.0%	4.7%	3.6%	2.3%	3.0%
Not admitted	23.1%	28.6%	18.0%	31.4%	24.6%	49.8%	22.7%	28.0%

* This table does not include 12 cases that were transferred from the A&E of one hospital to the A&E of another.

Table IE 5: Recommended next care by method of deliberate self harm.

2 Many patients who are admitted medically are given psychiatric review on the ward and may be transferred to the care of psychiatric services, once medically fit, or discharged for follow up as an outpatient.

3 Patients discharged home/not admitted after accident and emergency treatment are usually referred to their GP or given an outpatient department appointment.

involved, the higher the proportion of cases admitted for psychiatric inpatient care directly from the accident and emergency department.

Next care varied significantly by health board/authority. The proportion of deliberate self harm patients who left before a recommendation was made varied from 1.1% in the North Western Health Board to 4.9% in the Southern Health Board. Inpatient care (irrespective of type and whether patient refused) was recommended for half (49.7%) of the patients treated in the Eastern Regional Health Authority. The proportion given this recommendation was higher in the other health boards ranging from 62.6% in the Southern through to 88.7% in the South Eastern. This pattern was due to general inpatient admission rates across the health boards. Only one in four patients treated in a hospital within the Eastern Region were admitted to a ward of the treating hospital whereas this proportion ranged from 44.8% to 76.1% for patients treated in the other health boards. As a corollary to this, almost half (46.9%) of the cases treated in a hospital within the Eastern Regional Health Authority were discharged following emergency treatment compared to between 9.5% and 32.5% for patients treated in the other health boards. Just 5.1% of patients treated in the North Eastern Health Board were admitted for psychiatric inpatient care after treatment in the accident and emergency department whereas this ranged from 8.1% to 15.1% in the other health boards. As mentioned earlier, these percentages underestimate the percentage of all deliberate self harm cases admitted for psychiatric inpatient care as some of those admitted to a general hospital ward will be subsequently admitted as psychiatric inpatients[4]. The extent to which this happens is likely to vary by health board.

	Eastern Regional Health Authority (n=3142*)	Midland Health Board (n=658*)	Mid-Western Health Board (n=1028*)	North Eastern Health Board (n=1025)	North Western Health Board (n=456)	South Eastern Health Board (n=1225)	Southern Health Board (n=1320*)	Western Health Board (n=973)	Republic of Ireland (n=9827*)
General admission	25.0%	58.4%	62.9%	76.1%	51.3%	74.4%	44.8%	59.0%	49.9%
Psychiatric admission	15.1%	13.4%	8.1%	5.1%	13.6%	10.0%	12.6%	11.8%	11.8%
Patient would not allow admission	9.6%	10.3%	5.6%	4.7%	10.1%	4.3%	5.2%	6.6%	7.2%
Left before recommendation	3.3%	1.2%	3.7%	2.3%	1.1%	1.9%	4.9%	3.1%	3.0%
Not admitted	46.9%	16.7%	19.6%	11.8%	23.9%	9.5%	32.5%	19.5%	28.0%

* This table does not include 12 cases that were transferred from the A&E of one hospital to the A&E of another.

Table IE 6: Recommended next care by health board/authority.

4 Many patients who are admitted medically are given psychiatric review on the ward and may be transferred to the care of psychiatric services, once medically fit, or discharged for follow up as an outpatient.

REPETITION OF DELIBERATE SELF HARM

There were 7,738 individuals treated for 9,839 deliberate self harm episodes in the 39 hospitals that were monitored by the Registry in 2003. This implies that more than one in five (2,101, 21.4%) of all presentations in 2003 were due to repeat acts. This is significantly higher than in 2002, when repeat acts accounted for 19.3% of the deliberate self harm presentations to the 35 hospitals that were monitored for the full calendar year by the Registry. Of the 7,738 deliberate self harm patients, 1,065 (13.8%) made at least one repeat attempt during the calendar year which presented to hospital. In 2002, the repetition rate was 13.0%. At least five deliberate self harm presentations were made by 126 individuals. While these repeaters accounted for just 1.6% of all deliberate self harm patients, the 937 presentations they made represented one tenth (9.5%) of the 9,839 deliberate self harm presentations recorded by the Registry. The equivalent figures for 2002 showed that such multiple repeaters accounted for 1.4% of all deliberate self harm patients and 7.8% of all presentations. Thus, from several perspectives, there is evidence that repeated deliberate self harm is an increasing problem in Ireland.

	Overdose (n=7183*)	Alcohol (n=42)	Poisoning (n=194)	Hanging (n=210)	Drowning (n=211)	Cutting (n=1771*)	Other (n=216)	Total (n=9827*)
Number of individuals treated	5868	30	145	166	165	1195	169	7738
Number who repeated	743	4	16	33	18	231	20	1065
Percentage who repeated	12.7%	13.3%	11.0%	19.9%	10.9%	19.3%	11.8%	13.8%

Table IE 7: Number of individuals and number and percentage who repeated after their index presentation by main method of self harm.

	Eastern Regional Health Authority*	Midland Health Board	Mid-Western Health Board	North Eastern Health Board	North Western Health Board	South Eastern Health Board	Southern Health Board	Western Health Board	Republic of Ireland
Number of individuals treated									
Men	1076	234	361	330	149	417	467	320	3304
Women	1397	310	424	473	216	555	666	429	4433
Total	2473	544	785	803	365	972	1134**	749	7738**
Number who repeated									
Men	146	27	63	52	24	70	47	60	464
Women	215	28	70	73	31	67	67	59	601
Total	361	55	133	125	55	137	114	119	1065
Percentage who repeated									
Men	13.6%	11.5%	17.5%	15.8%	16.1%	16.8%	10.1%	18.8%	14.0%
Women	15.4%	9.0%	16.5%	15.4%	14.4%	12.1%	10.1%	13.8%	13.6%
Total	14.6%	10.1%	16.9%	15.6%	15.1%	14.1%	10.1%	15.9%	13.8%

* The Eastern Regional Health Authority figures will slighty underestimate the repetition rate as some repeat presentations will have been made to the two major acute hospitals in the health authority that were not monitored by the Registry in 2003.
** There was one individual in the Southern Health Board whose gender was unknown.

Table IE 8: Number of individuals and number and percentage who repeated by gender and health board/authority[5].

5 The sum of the health board figures exceeds the total number of individuals treated in the country because individuals who made multiple presentations were counted once in each region where they were treated but only once for the country as a whole.

The rate of repetition varied highly significantly according to the main method of self harm involved in act (Table IE 7). Cutting was associated with an increased level of repetition. Almost one in five of those who used it as the main method of self harm at the time of their index act made at least one subsequent deliberate self harm presentation in 2003.

The rate of repetition was similar in men (464/3,304, 14.0%) and women (601/4,433, 13.6%). Table IE 8 details the number of individuals treated in each health board/authority and the number and percentage of individuals who presented to hospital with a repeat act. The level of repetition varied significantly by health board/authority. 10.1% of the deliberate self harm patients treated in the Midland and Southern Health Boards repeated within the calendar year which was a significantly lower repetition rate than in the country as a whole whereas the repetition rate in the Mid-Western Health Board (16.9%) was significantly higher than the national rate. In the other health boards, between 14.1% and 15.9% of the deliberate self harm patients repeated.

SUICIDE

Over the five year period 1999-2003, 2,213 suicides were registered in the Republic of Ireland. Men and women accounted for 1,791 (80.9%) and 422 (19.1%) of these deaths, respectively. This yields a male/female suicide ratio of 4.2 to one. The average number of suicide deaths registered per year was 358 for men and 84 for women. Based on the extrapolated deliberate self harm figures for the country, annually, there are approximately 13 episodes of deliberate self harm for every death by suicide amongst men and approximately 76 episodes of deliberate self harm for every death by suicide amongst women.

METHOD OF SUICIDE

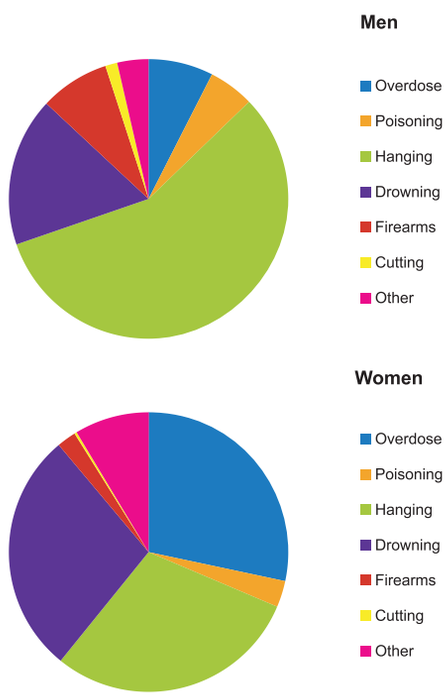


Figure IE 9: The method of suicide for men and women.

The method employed in acts of suicide contrasted with those used in episodes of deliberate self harm. The more lethal methods of hanging and drowning were more dominant, especially for men. Three-quarters of male suicides involved either hanging (57.0%) or drowning (17.3%). No other method of suicide was common among men. Hanging (29.6%), drowning (28.0%) and drug overdose (28.4%) were equally common as methods of female suicide. These methods accounted for 86.0% of all female suicide deaths.

II. Incidence Rates

Over the period from 1 January to 31 December 2003, the Registry recorded 9,839 deliberate self harm presentations to hospital that were made by 7,738 individuals. Excluding residents of the Eastern Region, the crude and European age-standardised rates of hospital-treated deliberate self harm in 2003 for the 'rest of Ireland' were 206 (95% confidence interval: 201 to 212) and 199 (95% CI: 194 to 205) per 100,000, respectively. Extrapolating to account for the partial coverage of the Eastern Regional Health Authority indicated that there were 11,204 deliberate self harm presentations by 8,805 individuals in the country as a whole. Based on these data, the Irish person-based crude and age-standardised rates of deliberate self harm were 221 (95% CI: 217 to 226) and 209 (95% CI: 204 to 214) per 100,000, respectively. The age-standardised rates reflect increases in the incidence of hospital-treated deliberate self harm when compared with the equivalent rates for 2002. The increase was statistically significant for the 'rest of Ireland' and for Ireland as a whole (incorporating the extrapolated data for the Eastern Region) when both genders were combined.

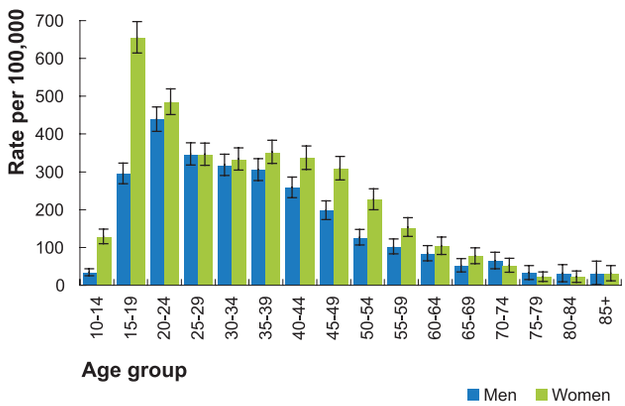
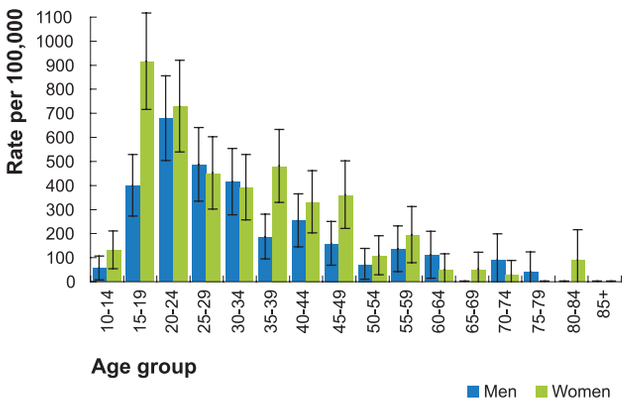


Figure IE 10: Person-based rate of deliberate self harm in the Republic of Ireland by age and gender.

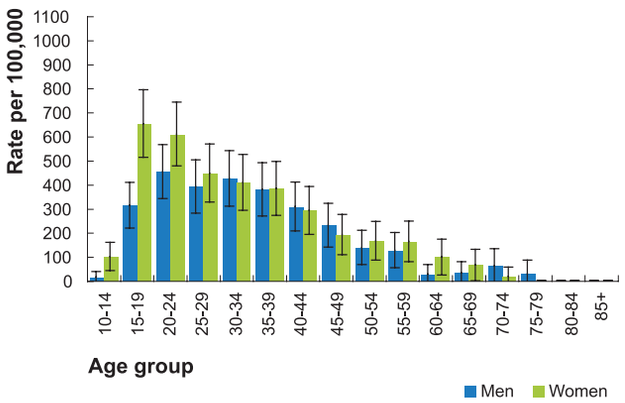
VARIATION BY GENDER AND AGE

The person-based age-standardised rate of deliberate self harm for men and women was 177 (95% CI: 171–184) and 241 (95% CI: 234–248) per 100,000, respectively. As shown in Table IE 9, this represents a statistically significant increase in the male rate since 2002 whereas the female rate showed only a marginal increase. The female rate of deliberate self harm in 2003 was significantly higher (+36%) than the male rate. This was a reduction on the 42% gender difference observed in 2002 which is a consequence of the significant rise in male deliberate self harm. Population figures, the number and rate of persons treated in hospital following deliberate self harm in 2003 and the annual rate of suicide (based on suicide deaths registered by the Central Statistics Office in the five years 1999-2003) are given in Appendix IE-2 by age and gender for persons residing in the Republic of Ireland.

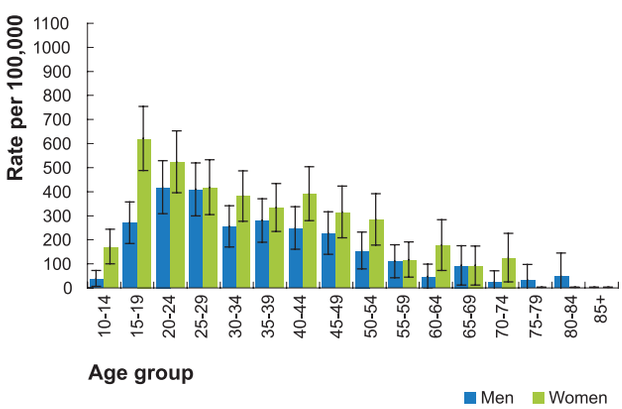
There was a striking pattern in the incidence of deliberate self harm when examined by age. The rates were highest among the young. At 654 per 100,000 and up 5% since 2002, the peak rate for women was among 15-19 year-olds. This rate implies that approximately one in every 150 girls in this age group presented to hospital in 2003 as a consequence of deliberate self harm. The peak rate for men was 438 per 100,000 among 20-24 year-olds, which is an increase of 8% since 2002. However, the most notable change in an age-sex specific rate was for 35-44 year-old men. This group had a rate of 282 per 100,000 in 2003, 19% higher than the rate of 238 per 100,000 observed in 2002. The incidence of deliberate self harm gradually decreased with increasing age in men. This was the case to a lesser extent in women as their rate remained relatively stable, at just over 300 per 100,000, across the 25 to 49 year age range. After the age of 65 years, the deliberate self harm rate in men and women was relatively low.



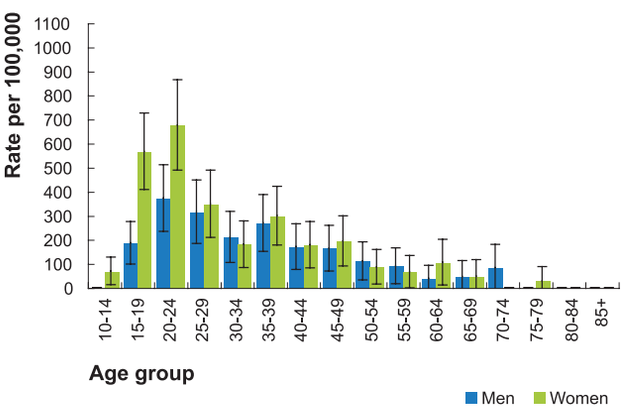
(a) Midland Health Board



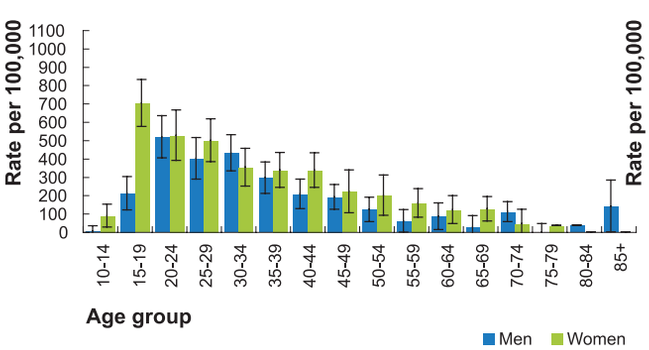
(b) Mid-Western Health Board



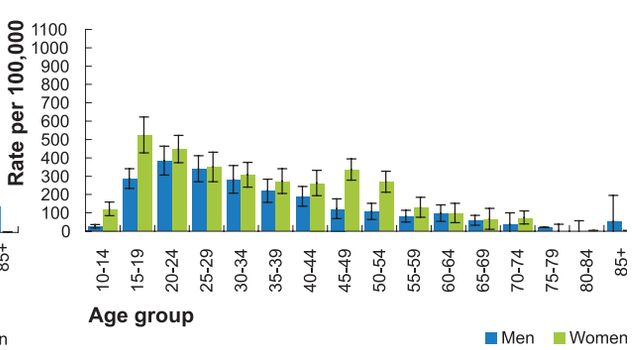
(c) North Eastern Health Board



(d) North Western Health Board

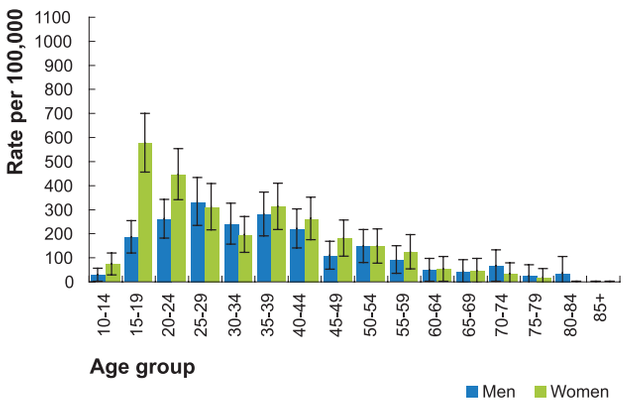


(e) South Eastern Health Board

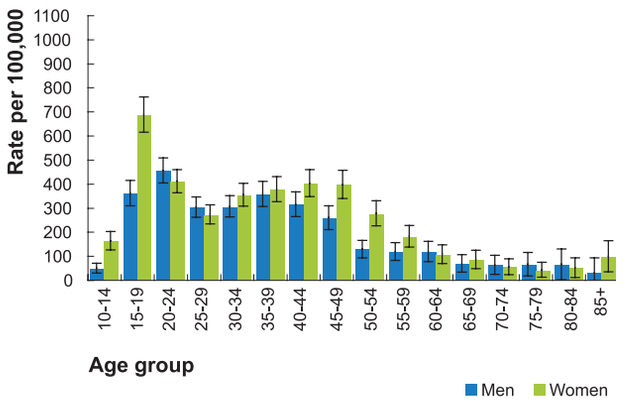


(f) Southern Health Board

Figure IE 11: *Person-based rate of deliberate self harm by residents of Irish health boards by age and gender.*



(g) Western Health Board



(h) Eastern Regional Health Authority

Figure IE 11: *Person-based rate of deliberate self harm by residents of Irish health boards by age and gender.*

Figure IE 11 shows the pattern of the incidence of deliberate self harm by age and gender for the residents of each health board/authority, separately. The pattern was broadly similar to that at national level. The deliberate self harm rate was highest among the young. The peak female rate was in 15-19 year-olds in all but the North Western Health Board where the peak rate was in 20-24 year-olds. The deliberate self harm rate in women aged 15-19 years in the Midland Health Board was especially high at 914 per 100,000. The secondary peak in middle-aged women was evident in several health board regions. The peak male rate, while less pronounced, was in the 20-24 year age group in all but the Western Health Board.

There were a number of significant changes in age-sex-specific deliberate self harm rates between 2002 and 2003. Girls aged 15-19 years in the Midland Health Board had a deliberate self harm rate of 914 per 100,000 in 2003, 82% higher than their rate of 502 per 100,000 in 2002. The same population in the Mid-Western Health Board experienced a 29% decrease in their deliberate self harm rate, from 925 to 653 per 100,000. There was a doubling (+109%) of the deliberate self harm rate for 20-24 year-old women of the North Western Health Board (324 to 677 per 100,000). Male 35-44 year-old residents of the Eastern Region experienced a 43% increase in their deliberate self harm rate from 235 to 336 per 100,000 whereas there was a 28% fall in the 25-29 year-old female rate in the Region (376 to 271 per 100,000).

Deliberate self harm was rare in 10-14 year-olds, particularly for boys. Respectively, the male and female rates were 9 and 5 times higher in 15-19 year-olds. Thus, the incidence of deliberate self harm increases rapidly over a short age range. This is illustrated in greater detail in Figure IE 12. It can be seen that deliberate self harm was rare in those aged 12 years and younger. In 13-20 year olds, the female rate of deliberate self harm was significantly higher than the male rate. The increases in the female rate in early teenage years were particularly striking. For each age from 15 through 20 years, the female rate of deliberate self harm was greater than 600 per 100,000 with the peak at 723 per 100,000 for 17 year-olds. Thus, one in every 140 17 year-old girls in Ireland presented to hospital in 2003 having deliberately self harmed.

In order to compare the age pattern of deliberate self harm with that of suicide, the annual age-specific rate of suicide (based on data registered by the Central Statistics Office in 1999-2003) is illustrated in Figure IE 13. The clearest difference relates to the male preponderance in suicide across all ages but particularly among 20-29 year-olds. The male suicide rate peaked at 32 per 100,000 in 25-29 year-olds. For 30-64 year-olds, the male suicide rate fluctuated between 19 and 25 per 100,000. In elderly men, the rate of suicide gradually decreased with increasing age although to a lesser extent than the decrease with increasing age that was observed for male deliberate self harm. The age pattern of female suicide did not show any great similarity to that for deliberate self harm.

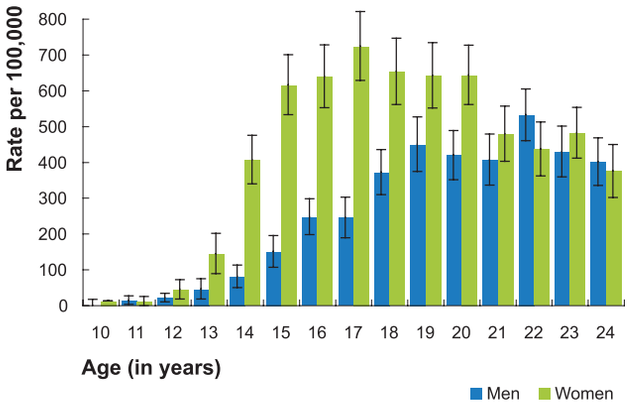


Figure IE 12: Person-based rate of deliberate self harm in the Republic of Ireland by single year of age for 10-24 year-olds.

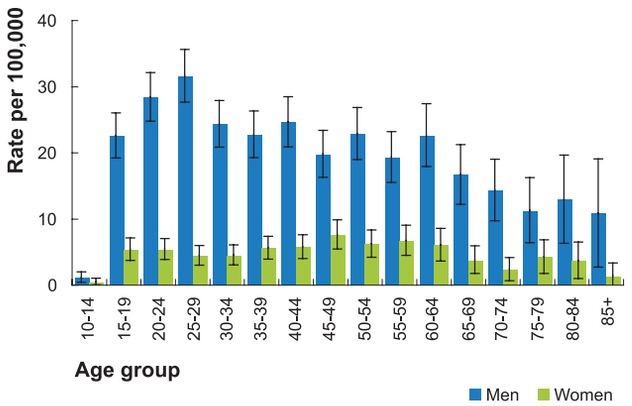


Figure IE 13: Annual rate of suicide in the Republic of Ireland by age and gender (based on data registered by the Central Statistics Office in 1999-2003).

VARIATION BY AREA

Rates by health board/authority

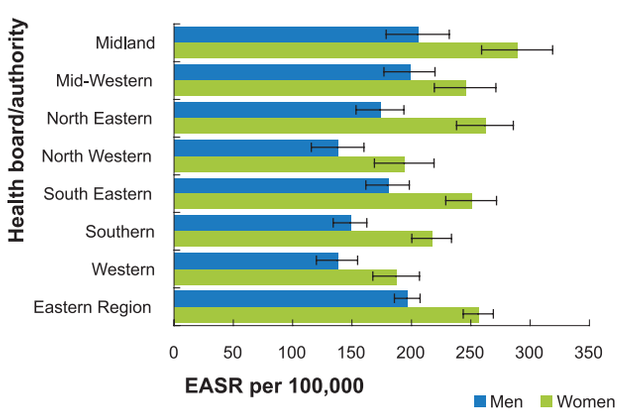


Figure IE 14: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland by health board/authority of residence and gender.

For each gender, the incidence of deliberate self harm in residents of the Midland Health Board and Eastern Regional Health Authority was significantly higher than the national male and female rates of 177 and 241 per 100,000, respectively. The 12% higher male rate in the Mid-Western Health Board was almost statistically significant. Male and female residents of the North Western, Southern and Western Health Boards had significantly lower deliberate self harm rates than men and women in the country as a whole.

In each health board/authority, the female rate of deliberate self harm was significantly higher than the male rate. The margin was least marked, at +24%, for Mid-Western Health Board residents. For Midland, North Western, South Eastern, Western and Eastern Regional Health Board/Authority residents, the female rate was higher by 30-41%, which was similar to the difference in the country as a whole. The greatest gender difference was for residents of the Southern and North Eastern Health Boards for whom the female rate was 46% and 51% higher than the male rate, respectively.

There were a number of notable changes in the incidence of deliberate self harm between 2003 and 2002. Most regions experienced an increase in male and female rates. Men in the Eastern Region experienced a significant increase of 12%. The 43% jump in the rate of deliberate self harm in 35-44 year-old men in the East, noted earlier, contributed most to the increase in that region. The 17% and 11% increases in the rate of deliberate self harm in women residing in the Midland and Southern Health Boards, respectively, were almost statistically significant. The former was due in large part to the 82% higher rate in teenage girls aged 15-19 years. While not statistically significant, the female rate in the North Eastern and North Western Health Boards increased by 10-11%. In contrast, there was a 10% drop in the female rate of deliberate self harm in the Mid-Western Health Board which was largely due to the 29% decrease in the rate for 15-19 year-old girls.

	MEN					WOMEN				
Health board/ Authority	Rate	95% CI*	Rate difference**	95% CI***	% difference	Rate	95% CI*	Rate difference**	95% CI***	% difference
Midland	205.8	(+/-27)	28	(+/-27.8)	+16.0	289.6	(+/-32)	48.4	(+/-33)	+20.1
Mid-Western	199	(+/-22)	22	(+/-23)	+12.1	246	(+/-24)	5	(+/-25)	+1.9
North Eastern	174	(+/-20)	-3	(+/-21)	-1.8	262	(+/-25)	21	(+/-26)	+8.8
North Western	138	(+/-22)	-39	(+/-23)	-22.0	194	(+/-26)	-47	(+/-27)	-19.4
South Eastern	180	(+/-18)	3	(+/-21)	+1.7	251	(+/-22)	10	(+/-25)	+4.0
Southern	148.9	(+/-15)	-29	(+/-15)	-16.1	217.7	(+/-17)	-24	(+/-17)	-9.8
Western	138	(+/-17)	-39	(+/-18)	-22.2	187.7	(+/-20)	-54	(+/-21)	-22.2
Eastern Region**	197	(+/-11)	20	(+/-13)	+11.0	257	(+/-12)	16	(+/-14)	+6.5
Ireland**	177.4	(+/-6)				241.2	(+/-7)			

* 95% Confidence Interval for the health board/authority deliberate self harm rate
** Rate difference = Health board/authority rate – national rate (177 and 241 per 100,000 for men and women, respectively)
*** 95% Confidence Interval for deliberate self harm rate difference
**** Deliberate self harm rate based on/incorporating the extrapolated Eastern Regional Health Authority data.

Table IE 10: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland by health board/authority of residence and gender with comparison to the national rate

	MEN					WOMEN				
Health board/ Authority	2003 Rate	2002 Rate	Rate difference	95% CI*	% difference	2003 Rate	2002 Rate	Rate difference	95% CI*	% difference
Midland	206	196	10	(+/-38)	+4.9	290	248	42	(+/-44)	+16.9
Mid-Western	199	189	10	(+/-31)	+5.2	245.8	271.5	-26	(+/-36)	-9.5
North Eastern	174	169	5	(+/-29)	+2.8	262	238	24	(+/-34)	+10.2
North Western	138	138	0	(+/-31)	+0.3	194	175	19	(+/-36)	+10.9
South Eastern	180	171	9	(+/-26)	+5.2	251	238	13	(+/-31)	+5.5
Southern	149	138	11	(+/-20)	+8.2	217.7	195.4	22	(+/-24)	+11.4
Western	138	139	-1	(+/-24)	-1.0	188	177	11	(+/-28)	+6.1
Eastern Region**	197	176	21	(+/-16)	+11.7	257	270	-13	(+/-18)	-4.8
Ireland**	177.4	166.6	11	(+/-9)	+6.5	241	237	4	(+/-10)	+1.6

* 95% Confidence Interval for deliberate self harm rate difference
** Deliberate self harm rate based on/incorporating the extrapolated Eastern Regional Health Authority data.

Table IE 11: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland in 2003 and 2002 by health board/authority of residence and gender

RATES BY COUNTY[6]

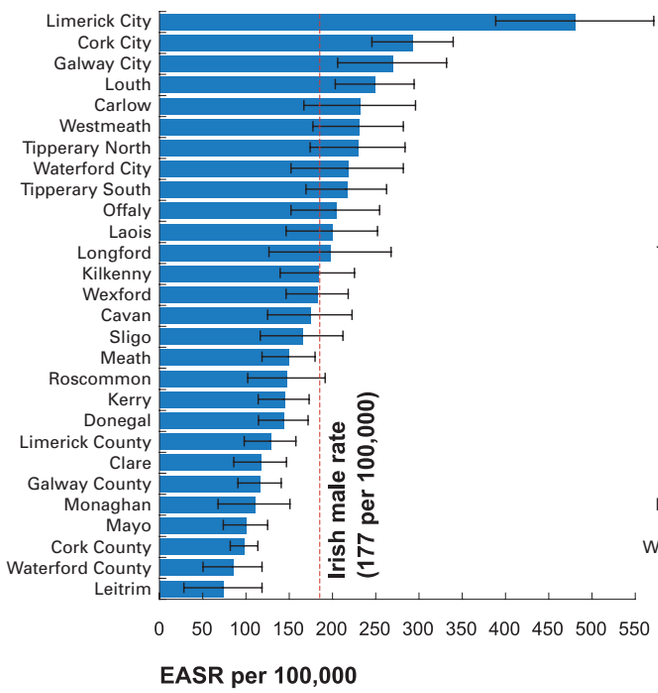


Figure IE 15a: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland by county/city of residence for men.

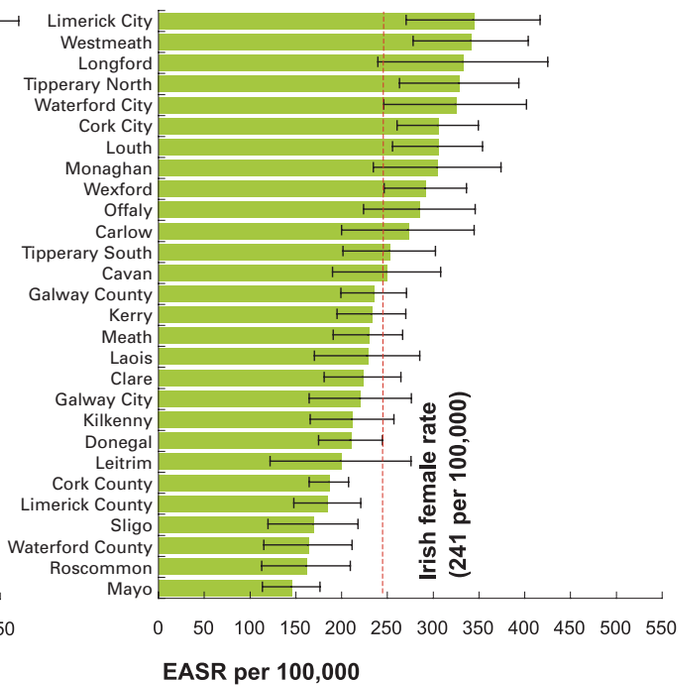


Figure IE 15b: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland by county/city of residence for women.

6 The partial coverage of the Eastern Regional Health Authority meant that reliable deliberate self harm rates could not be calculated for the constituent counties and city boroughs.

There was widespread variation in male and female deliberate self harm rates when examined by county/city of residence. The male rate varied from 74 per 100,000 for Leitrim to 481 per 100,000 for Limerick city. The lowest and highest female rates were recorded for Mayo and Limerick city residents at 146 and 344 per 100,000, respectively. There were some notable changes in deliberate self harm rates at county/city level between 2002 and 2003. For men, there was a statistically significant rise from 216 to 293 per 100,000 in Cork city. This 36% jump resulted in Cork city having the second highest rate behind Limerick city which itself experienced a 12% increase in its male rate. While not statistically significant, the male rate of deliberate self harm increased by 48% and 42% in Carlow and Tipperary North, respectively.

There was greater volatility in the female deliberate self harm rate between 2002 and 2003. Leitrim had the lowest female deliberate self harm rate in 2002 at 97 per 100,000. In 2003, the female rate was 200 per 100,000 (+107%) although this was still below the national rate. Longford's female deliberate self harm rate increased by 56% from 213 per 100,000 which was close to the national rate to 333 per 100,000, which gave the county the third highest rate in 2003. It should be noted that both these counties have low populations and therefore large fluctuations are more likely to be observed from year to year. Another Midland county, Laois, had a low female rate of deliberate self harm in 2002 (141 per 100,000) but this increased by 62% to 229 per 100,000 which was close to the national rate in 2003. Galway county, Kerry and Meath also experienced increases from low to average female rates. There was a 39% increase, from 169 to 236 per 100,000, in Galway, a 28% increase, from 182 to 233 per 100,000, in Kerry and a 28% increase, from 179 to 230 per 100,000, in Meath. Women in Monaghan exhibited a more significant increase in their deliberate self harm rate. Their rate of 199 per 100,000 in 2002 increased by 53% to 305 per 100,000 in 2003 which resulted in a move from below to above the national rate.

With the exception of women in Galway city, above average deliberate self harm rates were recorded for male and female residents of the cities of Cork (+65% for men, +27% for women), Galway (+52% for men, -8% for women), Limerick (+171% for men, +43% for women) and Waterford (+23% for men, +35% for women). For men, the rates for the residents of the corresponding counties were far lower. This was the case to a lesser extent for women as female residents of Galway county had a marginally higher rate than their counterparts in Galway city. However, in general, this indicates that deliberate self harm is particularly common in large urban settings in Ireland, most notably in Limerick city.

Generally at county/city level, the female deliberate self harm rate exceeded the male rate by a margin similar to that for the country as a whole (+36%). The cities of Limerick, Galway and, to a lesser extent, Cork, were notable exceptions. In Cork city, the female rate (306 per 100,000) was just 4% higher than the male rate (293 per 100,000). Women in Galway city had an 18% lower rate than the men (221 vs 270 per 100,000). For Limerick city residents in 2002, the male deliberate self harm rate marginally exceeded the female rate. This was due to the men having a rate that was 157% higher than the national average compared to a 77% higher rate for Limerick city women. The 12% increase in the male rate and the 28% decrease in the female rate led to a widening of the gender difference in 2003 such that the female rate (344 per 100,000) was 28% lower than the male rate (481 per 100,000). Compared to the national rate in 2003, Limerick city men had a 171% higher rate while Limerick city women had a 43% higher rate.

There was some indication that low rates of deliberate self harm were associated with the counties in the province of Connacht. For men and women, the seven counties with the lowest deliberate self harm rates included three of the five Connacht counties (Galway, Mayo and Leitrim) for men and four of the five Connacht counties (Leitrim, Sligo, Roscommon and Mayo) for women.

URBAN AND RURAL DISTRICT COMPARISON BY HEALTH BOARD

Figure IE 16 illustrates the deliberate self harm rate for residents of urban districts and rural districts by health board region. For each region, the incidence of deliberate self harm was significantly higher in the urban district population. Respectively, the rate was 66%, 118%, 126%, 128%, 129%, 139% and 248% higher in the urban district populations of the Western, North Western, Southern, Mid-Western, Midland, South Eastern and North Eastern Health Boards.

Having seen that rates of deliberate self harm in the larger urban centres generally exceed those observed in rural areas, it is now clear that deliberate self harm is an urban problem in a broader sense due to the high rates that were also recorded for the Irish population living in smaller urban centres/districts throughout the country.

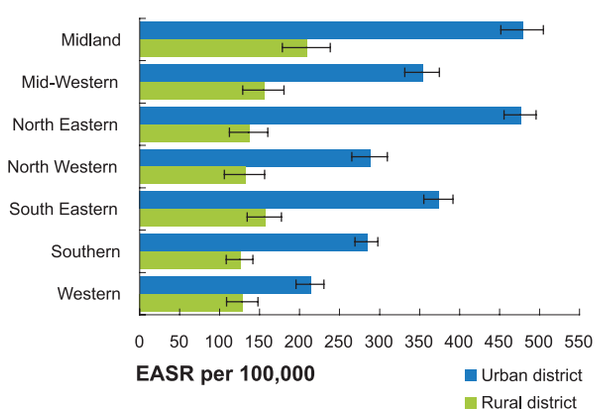


Figure IE 16: Person-based European age-standardised rate (EASR) of deliberate self harm for urban and rural district residents in the Republic of Ireland by health board

APPENDIX IE-1: HOSPITAL-TREATED EPISODES OF DELIBERATE SELF HARM IN THE REPUBLIC OF IRELAND.

	Eastern Regional Health Authority		Midland Health Board		Mid-Western Health Board		North Eastern Health Board		North Western Health Board		South Eastern Health Board		Southern Health Board		Western Health Board		Republic of Ireland	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0-4yrs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-9yrs	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10-14yrs	22	60	4	10	2	11	5	20	0	10	1	15	5	24	5	12	44	162
15-19yrs	150	307	39	80	56	96	39	111	18	57	42	131	67	126	44	119	455	1027
20-24yrs	267	250	64	60	91	98	64	70	37	57	108	98	105	135	78	95	814	863
25-29yrs	163	184	36	54	59	71	75	76	25	33	81	86	86	90	55	64	580	658
30-34yrs	191	193	55	53	87	67	45	82	31	26	98	88	77	84	57	37	641	630
35-39yrs	152	211	16	39	67	75	62	66	22	30	80	81	50	62	65	72	514	636
40-44yrs	138	195	32	28	50	48	42	61	15	16	45	67	45	76	45	57	412	548
45-49yrs	98	180	13	26	29	25	40	56	17	14	33	39	29	82	23	45	282	467
50-54yrs	42	116	9	7	19	20	22	30	7	11	21	28	20	60	25	18	165	290
55-59yrs	37	54	8	12	15	17	10	8	6	5	10	20	15	20	16	14	117	150
60-64yrs	23	31	7	2	3	9	4	11	2	6	8	16	14	19	5	4	66	98
65-69yrs	10	17	0	2	2	7	6	5	3	3	2	10	7	8	3	3	33	55
70-74yrs	7	8	4	1	3	2	5	6	3	0	7	3	3	7	5	3	37	30
75-79yrs	5	9	1	0	1	0	1	0	0	1	0	3	1	0	1	1	10	14
80-84yrs	3	4	0	1	0	0	1	0	0	1	1	0	0	0	1	1	6	7
85yrs+	1	6	0	0	0	0	0	0	0	0	2	0	1	0	0	0	4	6
Unknown	1	7	0	2	0	0	1	1	0	0	1	0	2	0	0	0	5	10
Total	1312	1832	288	377	484	546	422	603	186	270	540	685	527	793	428	545	4187	5651

This table does not include one episode of deliberate self harm by a 35-39 year-old treated in the Southern Health Board for which gender was unknown.

APPENDIX IE-2: DELIBERATE SELF HARM AND SUICIDE BY RESIDENTS OF THE REPUBLIC OF IRELAND.

	MEN						WOMEN					
AGE GROUP	POPULATION	DELIBERATE SELF HARM*			SUICIDE**		POPULATION	DELIBERATE SELF HARM*			SUICIDE**	
		Persons	Rate	95% CI***	Rate	95% CI***		Persons	Rate	95% CI***	Rate	95% CI***
0-4yrs	145576	0	0	(+/-0)	0.0	(+/-0)	139207	0	0	(+/-0)	0.0	(+/-0)
5-9yrs	137727	3	2	(+/-3)	0.0	(+/-0)	130336	0	0	(+/-0)	0.2	(+/-0.3)
10-14yrs	144154	47	33	(+/-10)	1.1	(+/-0.8)	136767	175	128	(+/-19)	0.4	(+/-0.5)
15-19yrs	157047	462	294	(+/-27)	22.5	(+/-3.4)	149767	980	654	(+/-42)	5.3	(+/-1.7)
20-24yrs	168542	738	438	(+/-32)	28.4	(+/-3.7)	167508	810	484	(+/-34)	5.4	(+/-1.6)
25-29yrs	159592	552	346	(+/-29)	31.6	(+/-4.0)	159318	549	345	(+/-29)	4.4	(+/-1.5)
30-34yrs	157171	498	317	(+/-28)	24.3	(+/-3.5)	156195	519	332	(+/-29)	4.5	(+/-1.5)
35-39yrs	146252	445	304	(+/-29)	22.7	(+/-3.5)	147815	519	351	(+/-31)	5.5	(+/-1.7)
40-44yrs	138181	356	258	(+/-27)	24.6	(+/-3.8)	139890	470	336	(+/-31)	5.7	(+/-1.8)
45-49yrs	126501	249	197	(+/-25)	19.8	(+/-3.5)	126698	390	308	(+/-31)	7.6	(+/-2.2)
50-54yrs	118221	148	125	(+/-21)	22.8	(+/-3.9)	116586	263	226	(+/-28)	6.2	(+/-2.1)
55-59yrs	104854	106	101	(+/-20)	19.3	(+/-3.8)	101802	155	152	(+/-24)	6.7	(+/-2.3)
60-64yrs	80596	67	83	(+/-20)	22.6	(+/-4.7)	79764	82	103	(+/-23)	6.0	(+/-2.5)
65-69yrs	66087	34	51	(+/-18)	16.6	(+/-4.5)	69164	53	77	(+/-21)	3.8	(+/-2.1)
70-74yrs	53145	34	64	(+/-22)	14.3	(+/-4.6)	60509	31	51	(+/-18)	2.3	(+/-1.7)
75-79yrs	37353	12	32	(+/-19)	11.2	(+/-4.9)	52252	11	21	(+/-13)	4.2	(+/-2.5)
80-84yrs	23252	7	30	(+/-23)	12.9	(+/-6.7)	38250	8	21	(+/-15)	3.7	(+/-2.8)
85yrs+	12957	4	31	(+/-31)	10.8	(+/-8.2)	29826	9	30	(+/-20)	1.3	(+/-1.9)
Total****	1977208	3762	177	(+/-6)	17.7	(+/-0.9)	2001654	5024	241	(+/-7)	4.2	(+/-0.4)

* Deliberate self harm data incorporates the extrapolated Eastern Regional Health Authority data. Nineteen individuals whose age or gender were not known are not included in this table.
** Annual rate based on suicide deaths registered by the Central Statistics Office in the five years 1999-2003
*** 95% Confidence Interval
**** The total rates are European age-standardised rates per 100,000

The offices of the
National Suicide Research Foundation
are at
1 Perrott Avenue
College Road
Cork
Ireland.

Tel.: +353 21 4277499
Fax: +353 21 4277545
E-mail: nsrf@iol.ie

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