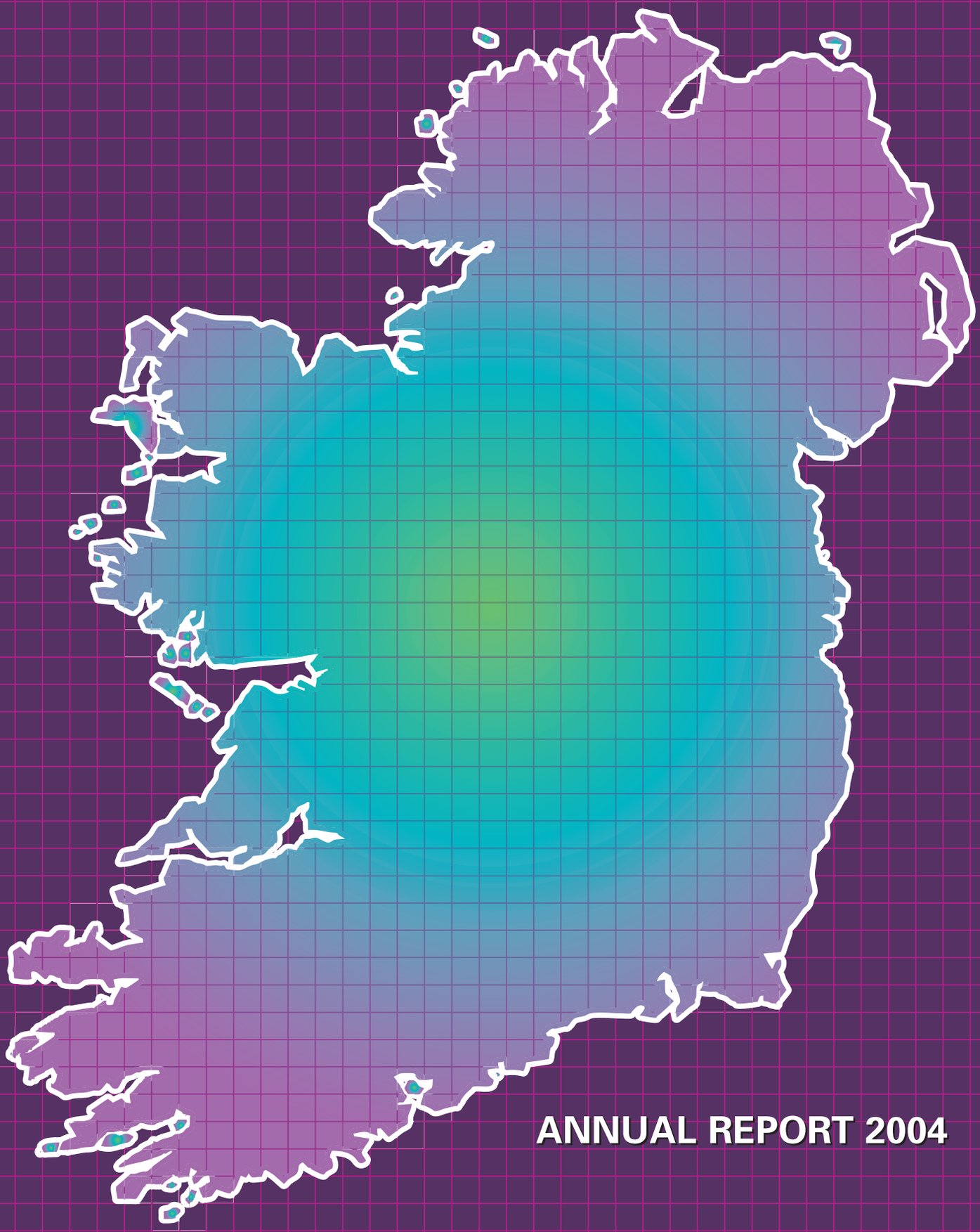
NATIONAL PARASUICIDE REGISTRY IRELAND



ANNUAL REPORT 2004

NATIONAL SUICIDE RESEARCH FOUNDATION

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Introduction and Executive Summary

This is the fourth annual report from the National Parasuicide Registry. It is based on data collected over the year 2004 on persons presenting to hospital with parasuicide (deliberate self harm). It is published in 2005 which was an important year for the Irish health services as the Health Service Executive (HSE) took over full operational responsibility for running the country's health and personal social services on January 1st 2005. Reflecting the new health service structures, this report uses the HSE area and region titles to refer to the former health board regions.

As in 2002 and 2003, the Registry had complete coverage of the HSE Midland, Mid-Western, North Eastern, North Western, South Eastern, Southern and Western Areas and partial coverage of the HSE Eastern Region in 2004. In total, data were collected for the full calendar year from 38 acute hospitals. No data were collected from one general and one paediatric acute hospital, both within the Eastern Region. Data collection in the outstanding general hospital commenced in 2005. Data were also collected from all 16 Irish prisons and places of detention.

Based on the near complete national coverage, we estimate that there were approximately 11,100 presentations to hospital due to deliberate self harm, involving approximately 8,600 individuals, in Ireland in 2004. These figures are marginally lower than the estimated figures for 2003 of 11,200 presentations by approximately 8,800 individuals. The age-standardised rate of individuals presenting to hospital following deliberate self harm in 2004 was 201 per 100,000, a 4% decrease on the rate of 209 per 100,000 in 2003 and almost identical to the rate of 202 per 100,000 in 2002. Most of the country's HSE areas/regions experienced a decrease in the rate of individuals presenting to hospital as a consequence of deliberate self harm.

The 4% decrease in the national rate of deliberate self harm was experienced by men (from 177 to 170 per 100,000) and women (241 to 233 per 100,000). The female rate was therefore 37% higher than the male rate in 2004, similar to the 36% gender difference in 2003. The incidence of deliberate self harm exhibited marked variation by geographic area, with higher than average rates among male and female residents of the HSE Eastern Region and lower than average rates among male and female residents of the North Western Area and among women in the Southern and Western Areas. City rates of deliberate self harm generally exceeded those of the counties, particularly for men. When county populations were disaggregated to urban and rural district populations, the incidence of deliberate self harm was considerably higher in urban settings.

For the first time, the Registry's coverage of the HSE Eastern Region enabled the incidence of deliberate self harm to be estimated for its constituent counties and city boroughs. The male and female rates for Dublin City were higher than the national rates. This was also the case for men in Wicklow and women in Fingal while the rate of self harm was relatively low for both genders in Dun Laoghaire-Rathdown and for men in Kildare.

Deliberate self harm was largely confined to the younger age groups. Almost half of all presentations (46%) were by people under 30 years of age and 89% were by people aged less than 50 years. The peak rate for women in 2004 (as in previous years) was in the 15-19 years age group, at 613 per 100,000, down 6% from 2003. Thus, approximately one in every 160 Irish adolescent girls was treated in hospital in 2004 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 407 per 100,000, which was 7% lower than in 2003.

At local HSE area level, there were a number of significant changes in age-sex specific deliberate self harm rates between 2003 and 2004. There were decreases, ranging in magnitude from 26% to 34%, among men aged 15-29 years in the Midlands and North West, men aged 20-24 years in the South East and 25-44 year-old men in the Mid-West. However, men aged 15-19 years in the South East and men aged 15-29 years in the West experienced 60% and 33% increases, respectively. In the Midland Area, following a sharp increase in the incidence of self harm in girls aged 15-19 years between 2002 and 2003 (+82%), we observed a fall of 22% between 2003 and 2004. Women aged 15-24 years in the Mid-Western Area and those aged 25-34 years in the North Eastern Area experienced decreases of 20% and 28%, respectively.

Repeat presentations to hospital due to deliberate self harm continue to represent a significant problem in Ireland. In 2004, 22% of all deliberate self harm presentations were due to repeat acts, which compares to 21% in 2003 and 19% in 2002. The proportion of deliberate self harm patients who made at least one repeat presentation during the calendar year was 15% in 2004. This proportion is higher than the 14% and 13% who repeated in 2003 and 2002, respectively. A small proportion (1.4%) of patients made at least five deliberate self harm presentations to hospital in 2004. However, these patients accounted for 8.5% of all deliberate self harm presentations in the country.

Drug overdose was the commonest method of self harm, involved in 77% of all acts registered in 2004. This was more striking in women (83%) than in men (68%). There was substantial variation in the number of tablets taken in intentional overdose acts. Whereas half (51%) of the female episodes and 44% of the male episodes involved 10-29 tablets, at least 50 tablets were taken by 20% of men and 17% 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 43%, 31% and 25% of deliberate overdoses, respectively. These drugs were involved in 41%, 31% and 24% of deliberate overdoses in 2003, respectively. Indeed, paracetamol-containing medicines have been involved in the same proportion of intentional drug overdose acts in each year since legislation restricting their sale was enacted in October 2001.

Self-cutting was the second commonest method of self harm, used as the main method in almost one in five of all cases (19%) and significantly more often by men (24%) than by women (16%). Most acts of self-cutting resulted in minor injuries. Only one in three (33%) required sutures. However, 8% were referred for plastic surgery. Men who cut themselves generally required more intensive treatment, being twice as often referred for plastic surgery. Self-cutting was associated with increased risk of repetition. One in five (19%) of individuals who presented as a result of self-cutting made a repeat presentation in 2004 as compared to 14% of those who presented due to an intentional drug overdose and 15% 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 (A&E) department. Of all deliberate self harm cases, 40% resulted in admission to a ward of the treating hospital, 15% were admitted for psychiatric inpatient treatment from the A&E department, 2% refused to be admitted, 13% left before next care could be recommended and 30% were discharged following emergency treatment. Thus, the A&E department was the only treatment setting for 45% of all deliberate self harm patients. Referral for general hospital inpatient care was most common following cases of drug overdose and self-poisoning. Almost half (45%) of the patients

who used cutting as the main method of self harm were discharged after receiving treatment in the A&E department. As one would expect, admission to psychiatric inpatient care directly from the A&E department was most common for cases involving the highly lethal methods of attempted hanging (37%) and attempted drowning (35%). However, a significant minority of such cases (32% of attempted hangings and 21% attempted drownings) were not admitted following emergency treatment.

The next care recommended to deliberate self harm patients differed depending on the HSE area/region in which they were treated. Only 18% of patients treated in the HSE Eastern Region were admitted to a general hospital ward whereas between 35% and 70% of patients treated in the other HSE areas were admitted to a general hospital ward. Direct psychiatric admission was most common in the Eastern Region. However, almost half (45%) of all self harm patients treated in a hospital in the Eastern Region were discharged following emergency treatment compared to between 12% and 32% of patients treated in the other HSE areas. Such variations are likely to relate to the availability of hospital beds and secondary services rather than variation in the characteristics of the individual patients and their self-harming behaviour. However, these findings highlight the need for standardised procedures in the assessment and aftercare of deliberate self harm patients.

In 42% of all episodes of deliberate self harm registered in 2004 there was evidence of alcohol consumption. The proportion of patients who used alcohol as part of their act was significantly higher in men (46%) than in women (38%). These levels are similar to those reported for 2003 and 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 45% of patients are treated exclusively in the A&E 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 England where the National Suicide Prevention Strategy aims to establish long-term multicentre monitoring of deliberate self harm. The rates of hospital-treated self harm in our urban centres are broadly similar to those observed in England.

As mentioned earlier, 2005 was an important year for the Irish health services, with the establishment of the HSE. It also marked the launch of Reach Out, the ten-year National Strategy for Action on Suicide Prevention and the establishment of the National Office for Suicide Prevention as the main driver of strategy implementation. The National Parasuicide Registry will provide baseline data for the National Strategy on the incidence and pattern of hospital-treated deliberate self harm in Ireland. In collaboration with those providing assessment and aftercare for deliberate self harm patients, the Registry can be developed to play an integral role in the development of an effective service response for people who have engaged in deliberate self harm, one of the key priorities of the National Strategy.

RECOMMENDATIONS

• The development of an effective service response for people who have engaged in deliberate self harm is one of the key priorities of the National Strategy. In pursuit of this objective, there is a need to collect additional standardised data on the extent and nature of the assessment received by deliberate self harm patients presenting to hospital. There is also a need for additional detailed work on the determinants of multiple hospital presentations with deliberate self harm. This work will contribute to the development of national standardised assessment and treatment methods for patients presenting to hospital with deliberate self harm.

• Engaging in deliberate self harm is the strongest predictor of future suicidal behaviour, both non-fatal and fatal. Internationally, it has been found that within one year of a self harm presentation to A&E, on average, 1.8% die by suicide (although the suicide rate based on UK studies alone was lower at 0.5%). The risk of suicide following deliberate self harm in Ireland is not well defined. There is a clear need to develop a satisfactory mechanism of linking National Parasuicide Registry data with Central Statistics Office data on suicide mortality. This could be achieved through the establishment of a specialist register of suicide and other inquested deaths. To maximise the benefits of such a register, we recommend that it take the form of a national confidential inquiry, obtaining data from all relevant agencies and linking with the National Parasuicide Registry and other appropriate national databases.

• Given the high rates of deliberate self harm in adolescents aged 15 to 19 years, there is a clear need for additional resources from the HSE to support mental health promotion and the provision of specialist mental health services for this age group.

• Restricting access to means has been a longstanding recommendation for the prevention of suicidal behaviour. In October 2001, legislation was enacted that restricted the sale of paracetamol-containing drugs. Despite the gradual implementation of these restrictions, the Registry has not detected a fall in deliberate self harm involving paracetamol-containing medicines. We recommend that a more detailed analysis be carried out to assess the impact of this legislation.

• Minor tranquillisers are the most frequently taken drugs in intentional overdose acts, involved in 43% of cases in 2004. These medications are indicated for short term use. However, they are widely available and frequently abused. More information needs to be collected on the source of medicines used in intentional overdose acts with a view to making recommendations relating to prescribing practices.

• Deliberate self harm is a symptom of the burden of psychological and psychiatric morbidity in the population. The high rates of deliberate self harm in Ireland, as summarised in this report, highlight the need for a comprehensive national mental health promotion strategy.

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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.

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.

QUALITY CONTROL

The validity of the Registry findings is dependent on the standardised application of the case-definition and inclusion/exclusion criteria. The Registry is currently undertaking a cross-checking exercise in which pairs of data registration officers independently collect data from two hospitals for the same consecutive series of attendances to the A&E department. Initial results from this exercise indicate that there is a very high level of agreement between the data registration officers.

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

Brought to hospital by ambulance

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. As an indicator of severity for acts of self-cutting, the treatment received was recorded when known.

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 hospitals and Health Services Executive (HSE) ethics committees.

REGISTRY COVERAGE

In 2004, deliberate self harm data were collected from each HSE area/region in the Republic of Ireland (pop: 4,043,800).

There was complete coverage of the HSE Midland Area (pop: 233,792), which covers the whole of the counties of Laois, Longford, Offaly and Westmeath. Deliberate self harm data were collected from the Midland Regional Hospitals at Mullingar, Portlaoise and Tullamore.

There was complete coverage of the HSE Mid-Western Area (pop: 349,559), 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 Hospitals at Ennis, Limerick and Nenagh and St John's Hospital Limerick.

There was complete coverage of the HSE North Eastern Area (pop: 361,015), 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 HSE North Western Area (pop: 226,593), 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 HSE South Eastern Area (pop: 437,539), 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 HSE Southern Area (pop: 595,612), 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. Deliberate self harm data were also collected from Tralee, Bantry and Mallow General Hospitals.

There was complete coverage of the HSE Western Area (pop: 392,472), 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 HSE Eastern Region (pop: 1,447,218), 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 James' Hospital Dublin, 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 and Our Lady's Hospital for Sick Children Crumlin. Data collection is now underway in the Mater Misericordiae University Hospital.

Thus, in total, deliberate self harm data were collected for the full calendar year from 38 acute hospitals (one of which included both an adult and a paediatric A&E 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 HSE Eastern Region in 2004. 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 two hospitals for which no data were collected in 2004. We had information on the number of A&E attendances in these hospitals. Based on the ratio of A&E attendances with deliberate self harm to all A&E attendances from the other hospitals in the Eastern Region, we estimated the number of attendances with deliberate self harm in both of these hospitals. The number of individuals who presented with deliberate self harm was estimated by applying the same ratio to the number of individuals that presented to the other hospitals in the Eastern Region.

POPULATION DATA

As far as possible, the Public Health Information System (PHIS) population estimates for 2004 were utilised. These estimates provide age-sex-specific population data for the country, the HSE Eastern Region and the HSE areas outside the Eastern Region and for counties. From the PHIS 2004 population estimates for the counties of Cork, Dublin, Galway, Limerick and Waterford, estimates were derived for the constituent city, county borough and rest of county populations based on the proportions of the county populations in these areas according to the National Census 2002. For urban/rural district populations, National 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 suicide deaths registered by the Central Statistics Office in the years 2000 to 2004. 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.

HSE Midland Area
Laura Smith

HSE Mid-Western Area
Catherine Murphy

HSE North Eastern Area
Bernadette Connolly
Sabrina Coyle

HSE North Western Area

Kathleen O'Donnell	Letterkenny
Sharon Kelly	Sligo

HSE South Eastern Area
Breda Brennan

HSE Southern Area

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

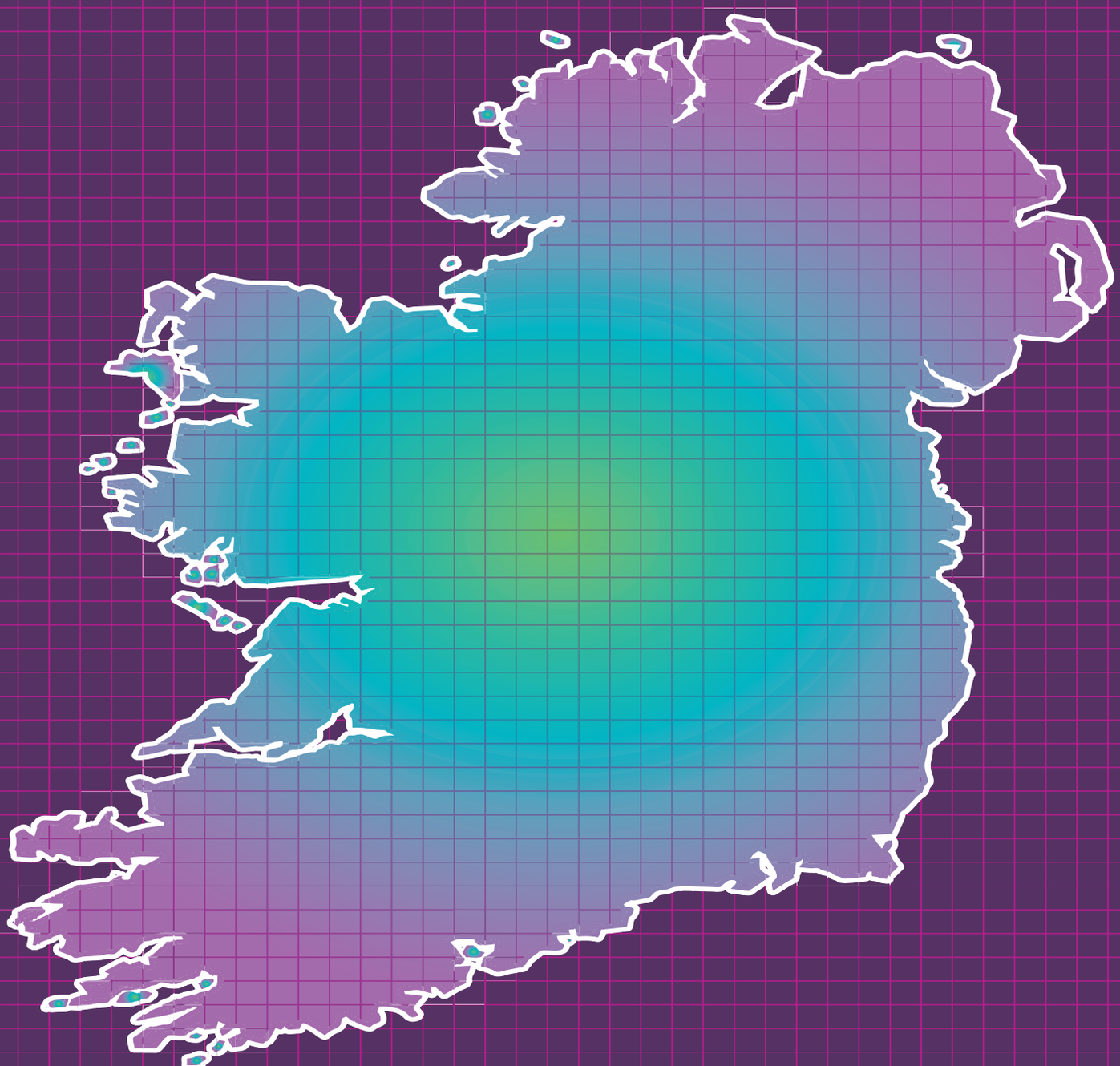
HSE Western Area
Mary Nix

HSE Eastern Region

Liisa Aula	East Coast Area
Grace Boon	Northern Area
James Buckley	South Western Area
Caroline McTurk	South Western Area

We would like to acknowledge the assistance of staff from the Department of Health and Children, the National Office for Suicide Prevention, the respective HSE areas/regions, and the individual hospitals who have facilitated the process of data collection. We would also like to acknowledge the contribution of officers from the Central Statistics Office in the compilation of data on suicides.

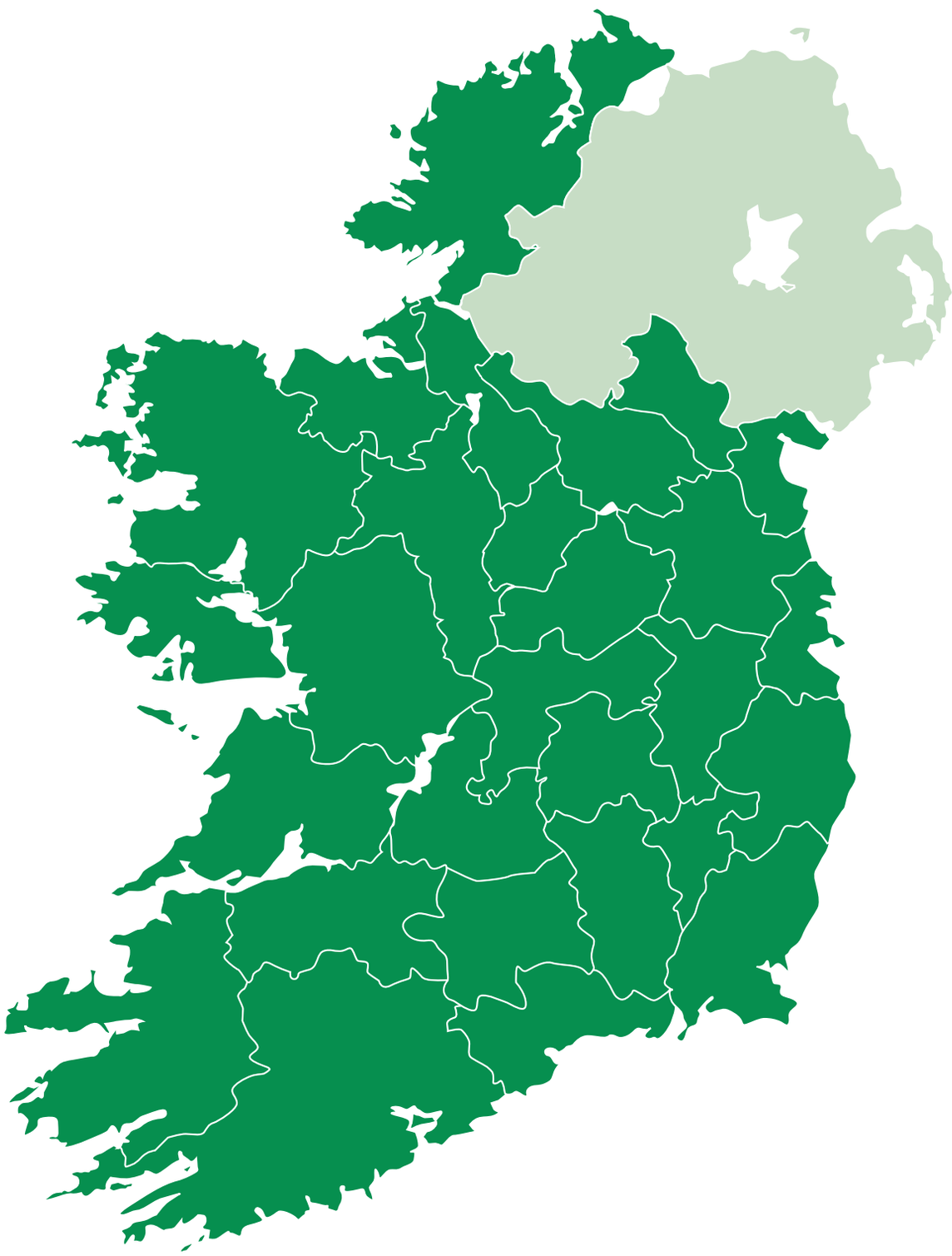
This report has been compiled by Paul Corcoran and Rachel Farrow with supervision, support and input from Ivan J Perry, Ella Arensman, Harry Comber, Helen S Keeley, Eileen Williamson and the Registry data registration officers.



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 2004, the Registry recorded 10,347 deliberate self harm presentations to hospital that were made by 8,055 individuals. Extrapolating to account for the partial coverage of the Health Services Executive (HSE) Eastern Region indicates that there were 11,092 deliberate self harm presentations by 8,610 individuals in the country as a whole. These numbers reflect decreases of 2% and 1% on the number of persons and presentations estimated to have been treated in 2003 though greater than the numbers estimated for 2002.

The age-standardised rate of individuals presenting to hospital in the Republic of Ireland following deliberate self harm in 2004 was 201 (95% Confidence Interval (CI): 197 to 206) per 100,000, a 4% decrease on the equivalent rate of 209 (95% CI: 204 to 214) per 100,000 in 2003. The incidence of deliberate self harm in Ireland is examined in detail in Part II of this section of the Annual Report.

The numbers of deliberate self harm episodes treated in the Republic of Ireland by HSE area/region, age and gender are given in Appendix IE-1. Of the 10,347 recorded presentations in 2004, 4,492 (43%) were made by 3,464 men and 5,850 (57%) were made by 4,586 women (gender was unknown in five cases). Deliberate self harm episodes were generally confined to the younger age groups. Almost half of all presentations (46%) were by people under 30 years of age and 89% 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 twice as many acts by women (568 by men and 1,153 by women). A notable exception to this female preponderance was in the 25-34 year age group where there were equal numbers of episodes by men and women (1,326 by men and 1,325 by women).

	Presentations		Persons	
Year	Rate	% diff	Rate	% diff
2002	10,537	-	8,421	-
2003	11,204	+6%	8,805	+5%
2004	11,092	-1%	8,610	-2%

Table IE 1: Number of deliberate self harm presentations and number of persons who presented in the Republic of Ireland in 2002-2004 (incorporating the extrapolated HSE Eastern Region data).

Three-hundred and twenty-six (3.2%) of the 10,347 episodes of deliberate self harm were by residents of homeless hostels and people of no fixed abode, 253 (2.4%) by hospital inpatients and 59 (0.6%) by prisoners.

DELIBERATE SELF HARM BY HSE AREA/REGION

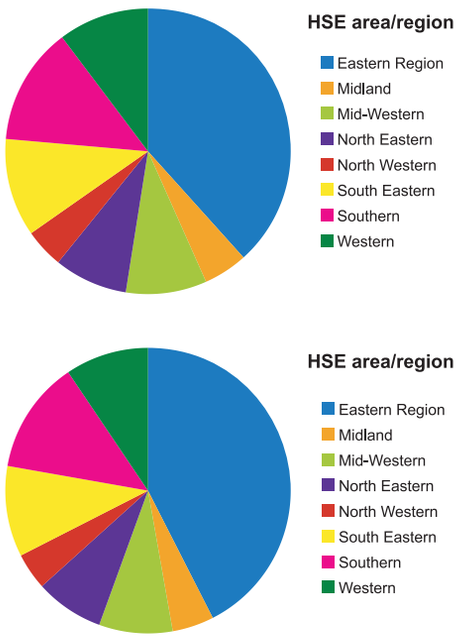


Figure IE 1: The distribution of episodes between HSE areas/regions in the Republic of Ireland. The upper chart illustrates the distribution arising from the Registry's actual monitoring of the hospitals. A full-year estimate for the partially monitored HSE Eastern Region is incorporated into the lower chart

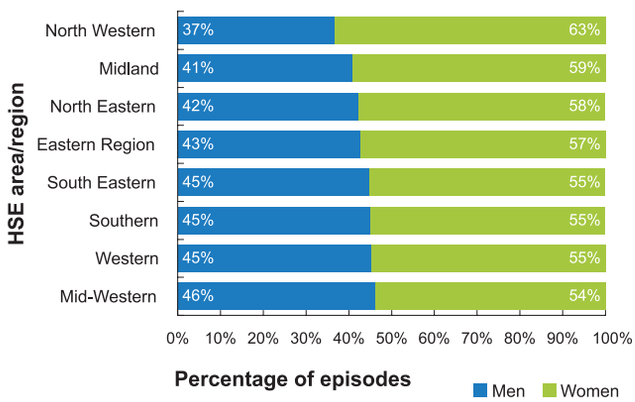


Figure IE 2: Gender balance of deliberate self harm episodes treated by HSE area/region.

Deliberate self harm presentations in the HSE Eastern Region accounted for 38.3% of all episodes recorded by the Registry. Extrapolating to a full-year estimate indicated that 42.4% 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 HSE areas ranged from 4.1% in the North Western, to 4.8% in the Midland, 7.8% in the North Eastern, 8.3% in the Mid-Western, 9.6% in the Western, 10.4% in the South Eastern and 12.6% in the Southern.

Based on figures acquired from either the relevant HSE area/region or the individual hospitals, deliberate self harm accounted for 0.92% of total attendances to A&E services in the country. This percentage of attendances accounted for by deliberate self harm varied by HSE area/region from 0.67% in the Midland, to 0.78% in the North Western and South Eastern, 0.83% in the North Eastern, 0.86% in the Mid-Western, 0.87% in the Southern, 0.92% in the Western and 1.10% in the Eastern Region.

The gender balance of recorded episodes (at 43% men to 57% women) varied by HSE area/region (Figure IE 2). Deliberate self harm presentations by women always outnumbered those by men. This was most pronounced in the HSE North Western Area and least pronounced in the HSE Mid-Western Area.

EPISODES BY TIME OF OCCURRENCE

Variation by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Men	397	407	391	336	399	354	405	392	373	354	319	365	4492
Women	559	478	504	522	533	439	464	499	497	433	495	426	5850
Total	957	886	895	858	933	793	870	892	870	787	814	791	10347*

* Gender was unknown for a case in January, February, May, July and August. Month was unknown for one female case

Table IE 2: Number of episodes by month for men and women.

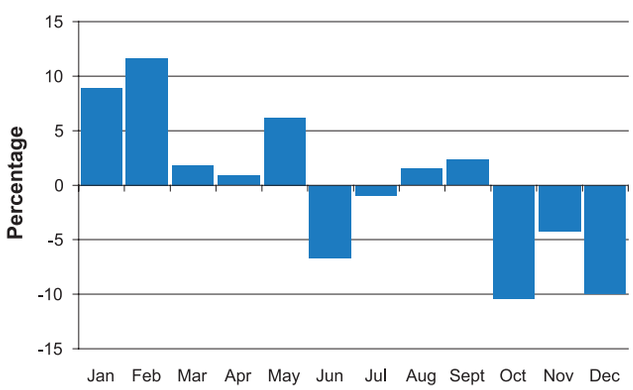


Figure IE 3: Percentage difference between the observed and expected number of deliberate self harm presentations by month.

The monthly average number of deliberate self harm presentations to hospitals monitored in 2004 was 862. 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 (+9%), February (+12%), May (+6%), June (-6%), October (-10%) and December (-10%). The peak in self harm presentations by men and women were in February (+18%) and January (+13%), respectively. Both genders had their lowest rate of presentations in the later months of the year (-14% in November for men, -13% in October and -14% in December for women).

For each HSE area/region in the country, Table IE 3 indicates the months in which the number of deliberate self harm presentations was at least 15% above or below the number expected. Several areas experienced such an excess of presentations in January and/or February while three experienced at least 15% fewer presentations than expected in December.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Midland		+	-			-	-	+		+	+	
Mid-Western								+				
North Eastern	+	+	-				-	-				-
North Western					-		+	+	-	-	+	
South Eastern		+									-	
Southern									+			-
Western	+	+				-	-					-
Eastern Region					+							

Table IE 3: Months with at least 15% more or fewer deliberate self harm presentations than expected by HSE area/region.

Variation by Day

	Monday	Tuesday	Wed'day	Thursday	Friday	Saturday	Sunday	Total
Men	756	601	570	639	622	643	661	4492
	(16.8%)	(13.4%)	(12.7%)	(14.2%)	(13.8%)	(14.3%)	(14.7%)	(100%)
Women	987	778	771	797	732	828	955	5848
	(16.9%)	(13.3%)	(13.2%)	(13.6%)	(12.5%)	(14.2%)	(16.3%)	(100%)
Total	1746	1380	1341	1437	1354	1471	1616	10345*
	(16.9%)	(13.3%)	(13.0%)	(13.9%)	(13.1%)	(14.2%)	(15.6%)	(100%)

* Gender was unknown for three Monday cases, one Tuesday case and one Thursday case. 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 4: Number of episodes by weekday.

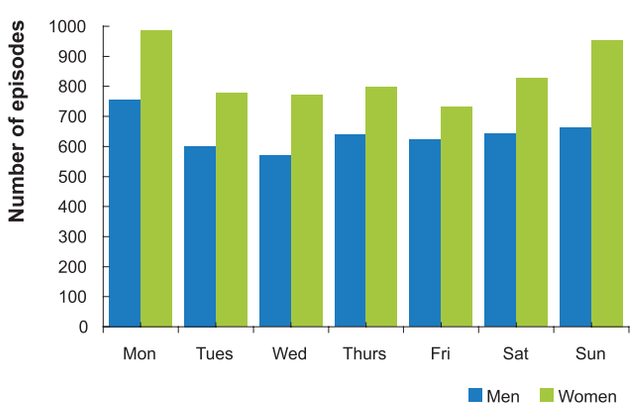


Figure IE 4: Number of episodes by weekday.

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.

Variation by Hour

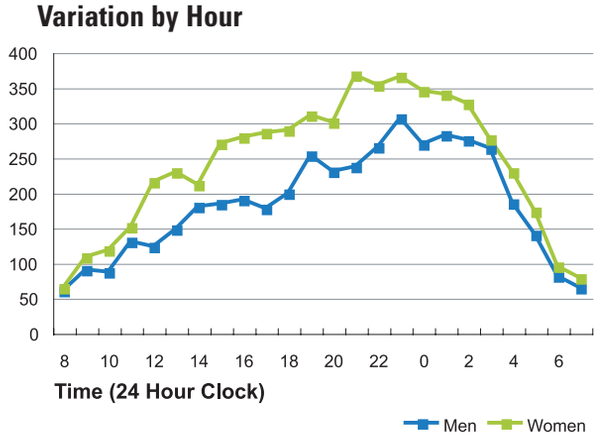


Figure IE 5: Number of episodes by time of attendance.

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 just before midnight with high numbers of presentations continuing in the early hours of the morning. The number of presentations was high over the period from 7pm to 3am. During this eight hour period, almost half (47.3%) 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 17.5% of all presentations.

The majority of patients (59%) were brought to hospital by ambulance. The proportion brought by ambulance varied over the course of the day from 51% for presentations between noon and 4pm to 67% for those who presented between midnight and 8am.

METHOD OF SELF HARM[1]

	Overdose	Alcohol	Poisoning	Hanging	Drowning	Cutting	Other	Total
Men	2773 (61.7%)	15 (0.3%)	98 (2.2%)	203 (4.5%)	151 (3.4%)	1064 (23.7%)	188 (4.2%)	4492 (100%)
Women	4544 (77.7%)	11 (0.2%)	69 (1.2%)	73 (1.2%)	86 (1.5%)	941 (16.1%)	126 (2.2%)	5850 (100%)
Total	7321 (70.8%)	26 (0.3%)	167 (1.6%)	276 (2.7%)	237 (2.3%)	2006 (19.4%)	314 (3.0%)	10347* (100%)

* Gender was unknown in four cases of drug overdose and one case of self-cutting.

Table IE 5: Number of episodes by most lethal method and gender.

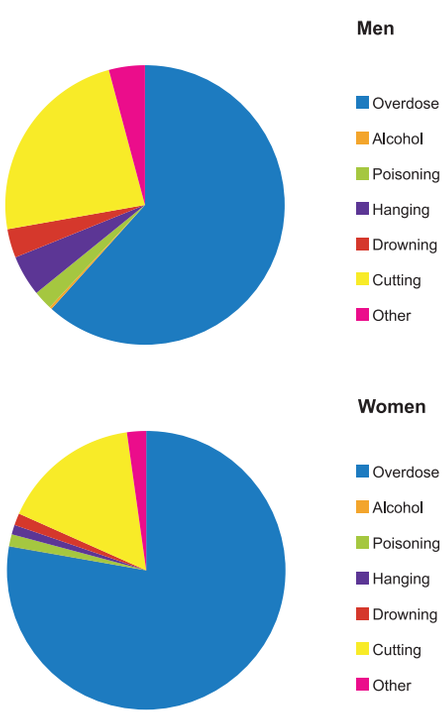


Figure IE 6 : Distribution of the most lethal method of self harm used by gender.

Almost three quarters (71%) 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 (62% of male episodes and 78% of female episodes). When consideration was also given to overdose as a secondary method, its frequency increased to 77% (7,933) of all cases (68% of male episodes and 83% of female episodes). While rare as a main method of self harm, alcohol was involved in 42% (4,292) of all cases. Alcohol was significantly more common in male deliberate self harm episodes (46%) than in female episodes (38%).

Cutting was the only other common method of self harm, used as the main method in almost one in five of all cases (19%). Cutting was significantly more common in men (24%) than in women (16%). In 1,554 (75%) of the 2,076 cases that involved self-cutting, the treatment received was recorded. The majority (56%) received steristrips or steribonds, 4% did not require any, one in three (33%) required sutures while 8% were referred for plastic surgery. Men who cut themselves generally required more intensive treatment. They were twice as often referred for plastic surgery (10% vs. 5%) while half (52%) required steristrips or steribonds compared to 61% of female self-cutters.

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 5,852 (74%) of the 7,933 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. On average, men took marginally more tablets in overdose acts than women (mean: 33 vs. 31). Figure IE 7 illustrates the pattern in the number of tablets taken in drug overdose episodes for both genders. Half (51%) of the female episodes and 44% of the male episodes of overdose involved 10-29 tablets. At least 50 tablets were taken by 20% of men as compared to 17% of women.

Figure IE 8 illustrates the frequency with which the most common types of drugs were used in overdose. 43% 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% of overdoses. Almost half (48%) of all female overdose acts and 40% of male acts involved an analgesic drug. Paracetamol was the most common analgesic drug taken, being involved in some form in 31% of drug overdose acts. Paracetamol was used significantly more often by women (34%) than by men (25%). One in four acts (25%) 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 14% of overdose cases. 'Other prescribed drugs' were taken in one in four (24%) of all overdoses which reflects the wide range of drugs taken deliberately in acts of drug overdose.

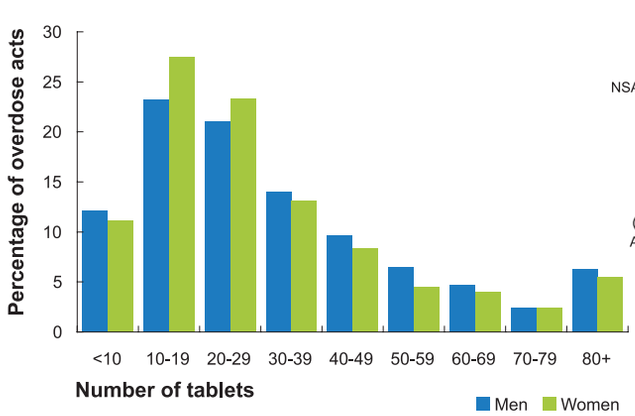
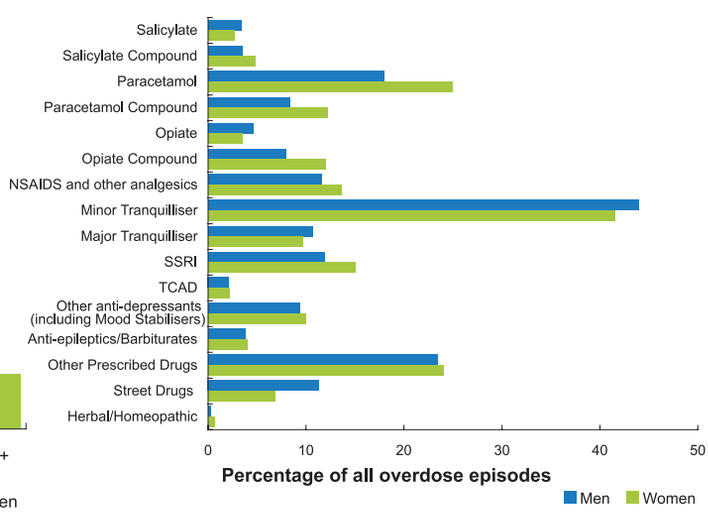


Figure IE 7: The pattern of the number of tablets taken in male and female acts of drug overdose.



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

In 1,313 cases (13%), the patient left the A&E department before a next care recommendation could be made. Almost one in ten of these individuals (123, 9%) was known to have left before being treated. Following their treatment in the A&E department, inpatient admission was the next stage of care recommended for 57%, irrespective of whether general or psychiatric admission was intended and whether the patient refused or not. Of all deliberate self harm cases, 40% resulted in admission to a ward of the treating hospital whereas 15% were admitted for psychiatric inpatient treatment from the A&E 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 2% of cases, the patient refused to allow him/herself to be admitted whether for general or psychiatric care. Approaching one-third of cases were discharged following treatment in the A&E department.[3]

Next care recommendations varied significantly by gender. Women were more often admitted to a ward of the treating hospital (43% vs. 37%). Men were marginally more likely than women to be admitted to psychiatric inpatient care directly from the A&E department (16% vs. 14%) and more likely to leave the emergency room before a recommendation was made (15% vs. 11%). 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 6, 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, almost half (45%) were discharged after receiving treatment in the A&E department. 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 A&E department.

Next care varied significantly by HSE area/region. The proportion of deliberate self harm patients who left before a recommendation was made varied from 5% in the South Eastern Area to 16%

	Overdose (n=7312)	Alcohol (n=25)	Poisoning (n=167)	Hanging (n=276)	Drowning (n=237)	Cutting (n=1994)	Other (n=313)	Total (n=10324*)
General admission	48.3%	52.0%	46.1%	17.8%	22.4%	17.7%	23.6%	40.2%
Psychiatric admission	10.8%	20.0%	16.8%	37.3%	34.6%	19.8%	32.3%	14.6%
Patient would not allow admission	2.0%	0.0%	3.6%	3.6%	5.5%	2.2%	1.9%	2.2%
Left before recommendation	12.2%	20.0%	7.2%	9.8%	16.5%	15.4%	10.2%	12.7%
Not admitted	26.8%	8.0%	26.3%	31.5%	21.1%	44.9%	31.9%	30.4%

* This table does not include 23 cases that were transferred from the A&E of one hospital to the A&E of another.

Table IE 6: 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.

in the Southern Area. Inpatient care (irrespective of type and whether patient refused) was recommended for 39% of the patients treated in the HSE Eastern Region. The proportion given this recommendation was higher in the HSE areas ranging from 53% in the Southern Area through to 84% in the South Eastern Area. This pattern was due to general inpatient admission rates across the health boards. Fewer than one in five patients treated in a hospital within the Eastern Region were admitted to a ward of the treating hospital whereas this proportion ranged from 35% to 70% for patients treated in the other HSE areas. As a corollary to this, almost half (45%) of the cases treated in a hospital within the Eastern Region were discharged following emergency treatment compared to between 12% and 32% for patients treated in the other HSE areas. Just 5% of patients treated in the HSE North Eastern Area were admitted for psychiatric inpatient care after treatment in the A&E department whereas this proportion ranged from 10% to 19% in the other HSE areas. 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 HSE area/region.

	Eastern Region	Midland Area	Mid-Western Area	North Eastern Area	North Western Area	South Eastern Area	Southern Area	Western Area	Republic of Ireland
	(n=3953)	(n=536)	(n=912)	(n=869)	(n=451)	(n=1151)	(n=1394)	(n=1058)	(n=10324*)
General admission	18.0%	57.8%	59.8%	62.5%	35.3%	70.4%	40.5%	47.8%	40.2%
Psychiatric admission	19.1%	12.9%	11.5%	4.6%	17.7%	9.7%	12.1%	16.4%	14.6%
Patient would not allow admission	2.0%	1.5%	2.1%	3.0%	2.4%	3.6%	0.7%	2.5%	2.2%
Left before recommendation	16.3%	12.3%	10.4%	8.5%	11.5%	4.6%	15.0%	11.3%	12.7%
Not admitted	44.5%	15.5%	16.2%	21.4%	33.0%	11.6%	31.7%	21.9%	30.4%

* This table does not include 23 cases that were transferred from the A&E of one hospital to the A&E of another.

Table IE 6: *Recommended next care by HSE area/region.*

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 8,055 individuals treated for 10,347 deliberate self harm episodes in the 38 hospitals monitored by the Registry in 2004. This implies that more than one in five (2,292, 22.2%) of all presentations in 2004 were due to repeat acts. Repeat acts accounted for 21.4% and 19.3% of the deliberate self harm presentations to the hospitals monitored by the Registry in 2003 and 2002, respectively. Of the 8,055 deliberate self harm patients, 1,201 (14.9%) made at least one repeat attempt during the calendar year which presented to hospital. This proportion is higher than that of 13.8% and 13.0% reported for 2003 and 2002, respectively. At least five deliberate self harm presentations were made by 110 individuals. These repeaters accounted for just 1.4% of all deliberate self harm patients but the 877 presentations they made represented 8.5% of the 10,347 deliberate self harm presentations recorded by the Registry. Such multiple repeaters accounted for 1.6% of all deliberate self harm patients and 9.5% of all presentations in 2003 and 1.4% of patients and 7.8% of presentations in 2002.

	Overdose	Alcohol Poisoning	Hanging	Drowning	Cutting	Other	Total
Number of individuals treated	5894	17	141	206	176	1399	222	8055
Number who repeated	804	3	19	34	30	271	40	1201
Percentage who repeated	13.6%	17.6%	13.5%	16.5%	17.0%	19.4%	18.0%	14.9%

Table IE 8: Number of individuals and number and percentage who repeated after their index presentation by main method of self harm.

	Eastern Region*	Midland Area	Mid-Western Area	North Eastern Area	North Western Area	South Eastern Area	Southern Area	Western Area	Republic of Ireland
Number of individuals treated									
Men	1278	183	304	301	142	404	526	367	3464
Women	1679	267	398	421	228	535	649	447	4586
Total	2960	451	702	723	370	939	1175	814	8055
Number who repeated									
Men	206	27	65	44	16	69	71	62	542
Women	274	32	60	51	31	69	75	71	659
Total	480	59	125	95	47	138	146	133	1201
Percentage who repeated									
Men	16.1%	14.8%	21.4%	14.6%	11.3%	17.1%	13.5%	16.9%	15.6%
Women	16.3%	12.0%	15.1%	12.1%	13.6%	12.9%	11.6%	15.9%	14.4%
Total	16.2%	13.1%	17.8%	13.1%	12.7%	14.7%	12.4%	16.3%	14.9%

* The HSE Eastern Region figures will slighty underestimate the repetition rate as some repeat presentations will have been made to the major acute hospital in the region that was not monitored by the Registry in 2004.
** There were five individuals whose gender was unknown.

Table IE 9: Number of individuals and number and percentage who repeated by gender and HSE area/region.

5 The sum of the HSE area/region figures exceeds the total number of individuals treated in the country because individuals who made multiple presentations were counted once in each area/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 the deliberate self harm act (Table IE 8). Cutting was associated with an increased level of repetition. 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 2004.

The rate of repetition was similar in men (542/3,464, 15.6%) and women (659/4,586, 14.4%) but it did vary by age. One in ten (10%) deliberate self harm patients aged under 15 years re-presented with self harm in 2004. This compared to 13% of 15-24 year-olds, 16% of those aged 25 years through to 64 years and 9% of patients aged over 65 years.

Repetition rates varied significantly by HSE area/region. The lowest rate was 12.4% among deliberate self harm patients treated in the HSE Southern Area, statistically significantly lower than the rate in the rest of the country. At least 16% of patients treated in the Eastern Region, and the Western and Mid-Western Areas repeated within the calendar year, significantly higher than in the rest of the country for the Eastern Region and Mid-Western Area. The male repetition rate in the Mid-Western Area was significantly higher than the female rate. While not statistically significant, a similar gender difference was apparent for patients treated in the South Eastern Area. Repetition rates at HSE area/region in 2004 did not vary significantly from the equivalent rates in 2003.

SUICIDE

Over the five year period 2000-2004, 2,216 suicide deaths were registered in the Republic of Ireland. Men and women accounted for 1,784 (80.5%) and 432 (19.5%) of these deaths, respectively. This yields a male/female suicide ratio of 4.1 to one. The average number of suicide deaths registered per year was 357 for men and 86 for women. Based on the extrapolated deliberate self harm figures for the country, annually, there are approximately 14 episodes of deliberate self harm for every death by suicide amongst men and approximately 73 episodes of deliberate self harm for every death by suicide amongst women.

METHOD OF SUICIDE

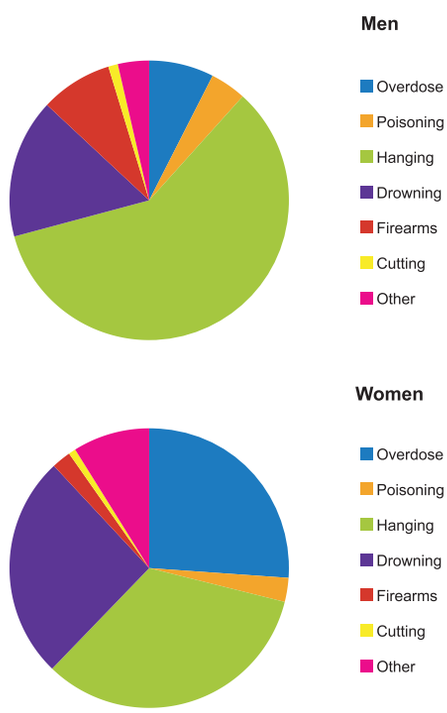


Figure IE 9: The method of suicide for men and women.

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 (59%) or drowning (16%). No other method of suicide was common among men. Hanging (33%), drowning (26%) and drug overdose (26%) were almost equally common as methods of female suicide. These methods accounted for 85% of all female suicide deaths.

II. Incidence Rates

Over the period from 1 January to 31 December 2004, the Registry recorded 10,347 deliberate self harm presentations to hospital that were made by 8,055 individuals. Extrapolating to account for the partial coverage of the Health Services Executive (HSE) Eastern Region indicated that there were 11,092 deliberate self harm presentations by 8,610 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 213 (95% CI: 208 to 218) and 201 (95% CI: 197 to 206) per 100,000, respectively. Thus, the age-standardised rate in 2004 was 4% lower than it was in 2003 (209 per 100,000) and almost identical to the rate in 2002. The rate difference between 2003 and 2004 was -8 (95% CI: -14 to –1) per 100,000 indicating that the difference was just statistically significant.

	Men		Women		All	
Year	Rate	% diff	Rate	% diff	Rate	% diff
2002	167	-	237	-	202	-
2003	177	+7%	241	+2%	209	+4%
2004	170	-4%	233	-4%	201	-4%

Table IE 10: Person-based age-standardised rate of deliberate self harm in the Republic of Ireland in 2002-2004 (incorporating the extrapolated HSE Eastern Region data).

VARIATION BY GENDER AND AGE

The person-based age-standardised rate of deliberate self harm for men and women was 170 (95% CI: 164 to 176) and 233 (95% CI: 226 to 239) per 100,000, respectively. For both genders, these rates reflect 4% decreases on the 2003 rates. The rate differences between 2004 and 2003 were –7 (95% CI: -16 to 2) per 100,000 for men and –9 (95% CI: -19 to 1) per 100,000 for women. Thus, neither decrease was statistically significant. The female rate of deliberate self harm in 2004 was significantly higher (+37%) than the male rate. This was similar to the +36% gender difference observed in 2003.

Population figures, the number and rate of persons treated in hospital following deliberate self harm in

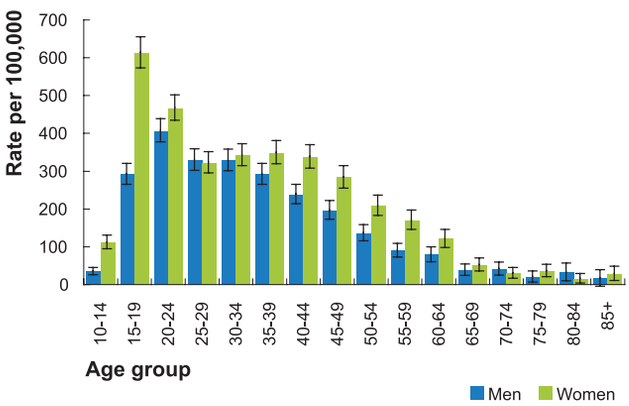
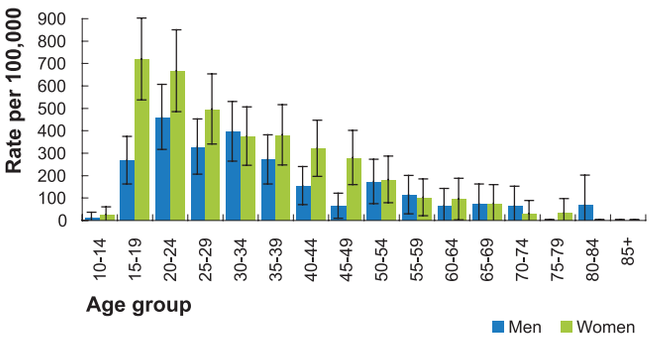


Figure IE 10: Person-based rate of deliberate self harm in the Republic of Ireland by age and gender.

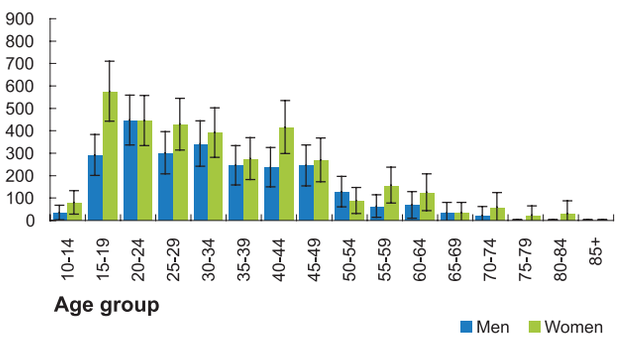
2004 and the annual rate of suicide (based on suicide deaths registered by the Central Statistics Office in the five years 2000-2004) are given in Appendix IE-2 by age and gender for persons residing in the Republic of Ireland.

There was a striking pattern in the incidence of deliberate self harm when examined by age. The rates were highest among the young. At 613 per 100,000, down 6% since 2003, the peak rate for women was among 15-19 year-olds. This rate implies that approximately one in every 160 girls in this age group presented to hospital in 2004 as a consequence of deliberate self harm. The peak rate for men was 407 per 100,000 among 20-24 year-olds, a decrease of 7% since 2003. While there were no notable changes in age-specific rates between 2003 and 2004, the majority of age groups did experience a decrease. 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 over 300 per 100,000, across the 25 to 44 year age range. After the age of 65 years, the deliberate self harm rate in men and women was low.

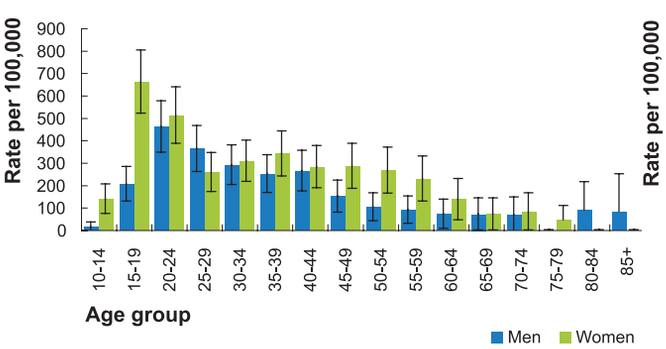
The extent of gender differences in the incidence of deliberate self harm varied with age. In 10-19 year-olds, the female rate was more than double the male rate. It was still higher than the male rate in 20-24 year-olds but by a relatively small margin. The rates were almost identical in men and women aged 25-34 years whereas the female rate was significantly higher across the 35-64 year age group.



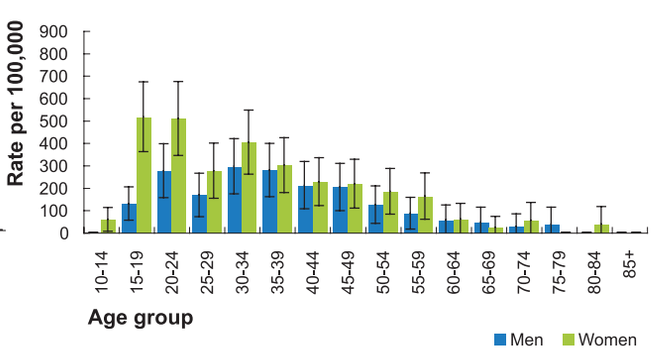
(a) Midland Area



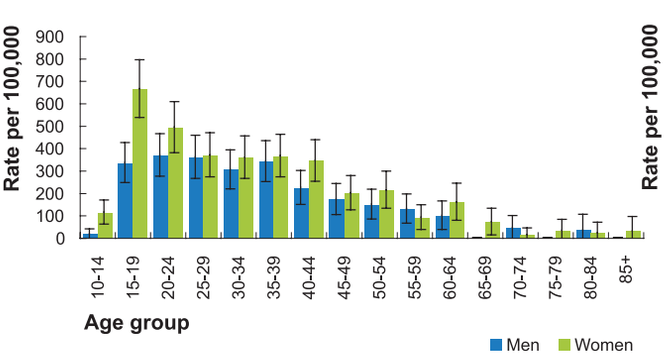
(b) Mid-Western Area



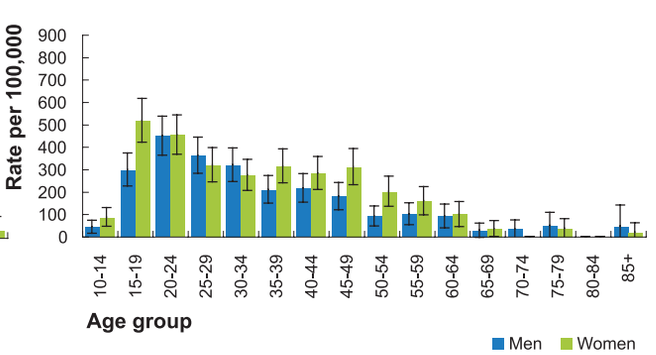
(c) North Eastern Area



(d) North Western Area

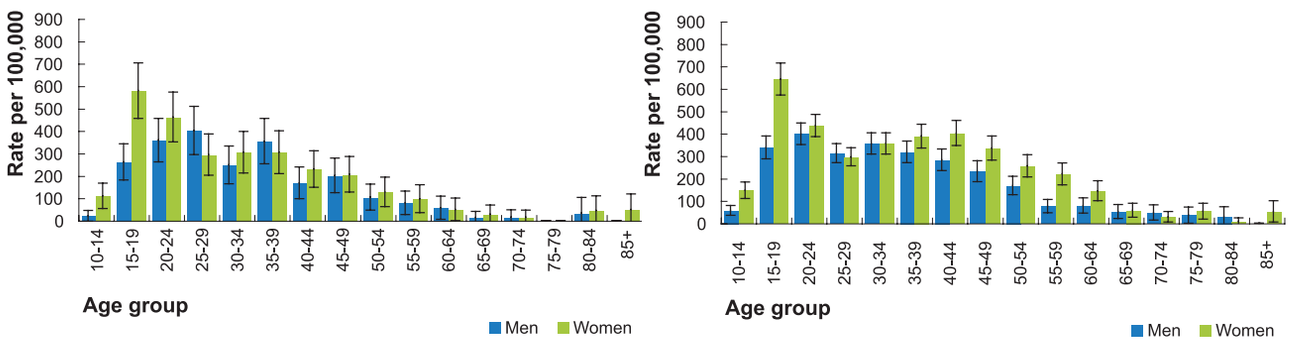


(e) South Eastern Area



(f) Southern Area

Figure IE 11: *Person-based rate of deliberate self harm for residents of Irish HSE areas/regions by age and gender.*



(g) Western Area *(h) Eastern Region*

Figure IE 11: *Person-based rate of deliberate self harm for residents of Irish HSE areas/regions 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 HSE area/region separately. The pattern was broadly similar to that at national level. The deliberate self harm rate was highest among the young. In all areas, the peak female rate was in 15-19 year-olds. The secondary peak in middle-aged women was most evident in the HSE Mid-Western and North Western Areas and in the Eastern Region. The peak male rate, while less pronounced, was in the 20-24 year age group in all but the Western Area.

At local HSE area/region level, there were a number of significant changes in age-sex specific deliberate self harm rates between 2003 and 2004. There were decreases ranging in magnitude from 26% to 34% among men aged 15-29 years in the Midlands and North West, those aged 20-24 years in the South East and 25-44 year-old men in the Mid-West. However, men aged 15-19 years in the South East and men aged 15-29 years in the West experienced 60% and 33% increases, respectively. Girls aged 15-19 years in the Midland Area had a 22% lower rate of deliberate self harm in 2004. This countered, to some extent, the 82% increase that this population had experienced in 2003. Women aged 15-24 years in the Mid-Western Area and those aged 25-34 years in the North Eastern Area experienced decreases of 20% and 28%, respectively.

Deliberate self harm was rare in 10-14 year-olds, particularly for boys. Respectively, the male and female rates were 8.5 and 5.5 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 13-21 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 19 years, the female rate of deliberate self harm was approximately 600 per 100,000 with the peak at 657 per 100,000 for 17 year-olds. Thus, one in every 150 17 year-old girls in Ireland presented to hospital in 2004 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 deaths registered by the Central Statistics Office in 2000-2004) 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 31 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 decreased with increasing age. The age pattern of female suicide did not show any great similarity to that for deliberate self harm as 45-64 year-olds had the highest suicide rate.

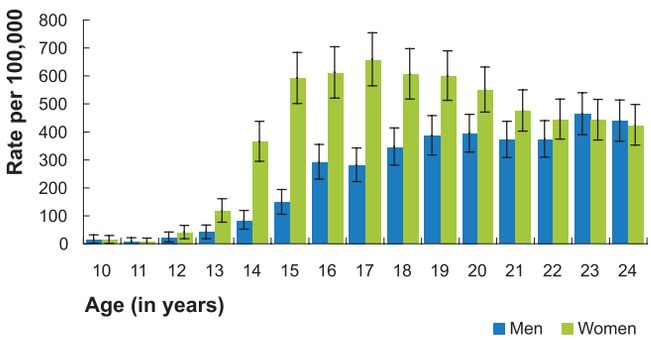


Figure IE 12: Person-based rate of deliberate self harm in the Republic of Ireland by single year of age for 10-24 year-olds.

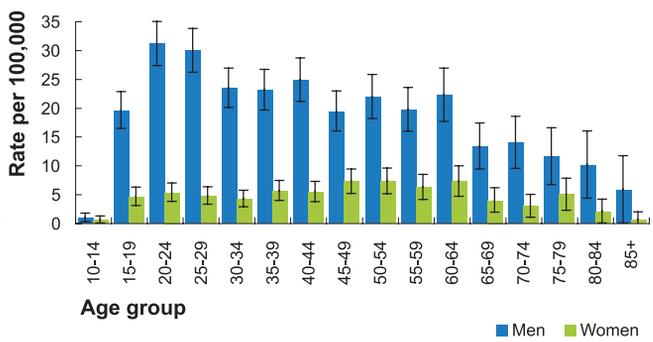


Figure IE 13: Annual rate of suicide in the Republic of Ireland by age and gender (based on deaths registered by the Central Statistics Office in 2000-2004).

VARIATION BY AREA

Rates by HSE area/region

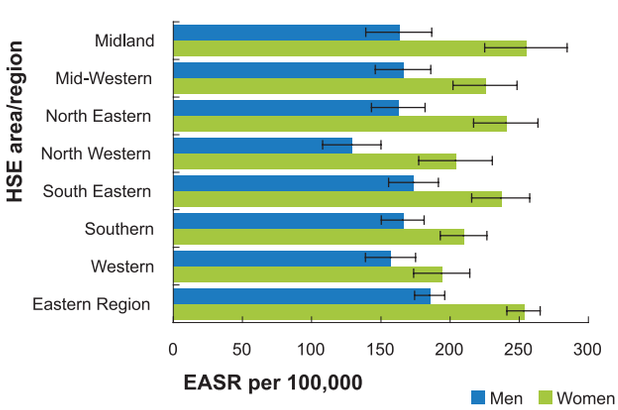


Figure IE 14: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland by HSE area/region of residence and gender.

The incidence of deliberate self harm in male and female residents of the HSE North Western Area was significantly lower than the national male and female rates of 170 and 233 per 100,000, respectively. This was also the case for women living in the Southern and Western Areas. On the other hand, the incidence of deliberate self harm in men and women living in the HSE Eastern Region was higher than in the country as a whole.

In each HSE area/region, the female rate of deliberate self harm was significantly higher than the male rate. The margin was least marked, at +24% and +27%, for Western and Southern Area residents. For residents of the Eastern Region and the Mid-Western and South Eastern Areas, the female rate was 36-37% higher, which was identical to the difference in the country as a whole. The female rate was 48% higher in the North Eastern Area. The gender difference was greatest for residents of the Midland and North Western Areas where the female rate was 56% and 58% higher than the male rate, respectively.

There were a number of notable changes in the incidence of deliberate self harm between 2003 and 2004. Most HSE areas/regions experienced a decrease in male and female rates. Men in the Midland and Mid-Western Areas experienced the most marked changes, decreases of 21% and 16%, respectively. While not statistically significant, there was also a notable decrease (-12%) in the incidence of deliberate self harm in female residents of the HSE Midland Area. The most marked increases were exhibited by men of the Southern (+12%) and Western (+14%) Areas.

	MEN					WOMEN				
HSE Area/ Region	Rate	95% CI*	Rate difference**	95% CI***	% difference	Rate	95% CI*	Rate difference**	95% CI***	% difference
Midland	163.5	(+/-24)	-7	(+/-25)	-4.1	255.3	(+/-30)	23	(+/-31)	+9.8
Mid-Western	166.6	(+/-20)	-4	(+/-21)	-2.2	225.7	(+/-23)	-7	(+/-24)	-3.0
North Eastern	163.1	(+/-19)	-7	(+/-20)	-4.3	240.8	(+/-23)	8	(+/-24)	+3.5
North Western	129.6	(+/-21)	-41	(+/-22)	-24.0	204.4	(+/-27)	-28	(+/-27)	-12.1
South Eastern	174.0	(+/-18)	4	(+/-19)	+2.1	237.1	(+/-21)	5	(+/-22)	+2.0
Southern	166.2	(+/-15)	-4	(+/-17)	-2.4	210.2	(+/-17)	-22	(+/-18)	-9.6
Western	157.4	(+/-18)	-13	(+/-19)	-7.6	194.4	(+/-20)	-38	(+/-21)	-16.4
Eastern Region**	185.7	(+/-11)	15	(+/-12)	+9.0	253.6	(+/-12)	21	(+/-14)	+9.0
Ireland**	170.4	(+/-6)				232.6	(+/-7)			

* 95% Confidence Interval for the HSE area/region deliberate self harm rate.
** Rate difference = HSE area/region rate – national rate (170 and 233 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 HSE Eastern Region data.

Table IE 11: Person-based age-standardised rate of deliberate self harm in the Republic of Ireland by HSE area/region of residence and gender with comparison to the national rate.

	MEN					WOMEN				
Health Area/ Region	2004 Rate	2003 Rate	Rate difference	95% CI*	% difference	2004 Rate	2003 Rate	Rate difference	95% CI*	% difference
Midland	163.5	205.8	-42	(+/-36)	-20.6	255.3	289.6	-34	(+/-44)	-11.9
Mid-Western	167	199	-32	(+/-30)	-16.2	226	246	-20	(+/-34)	-8.2
North Eastern	163	174	-11	(+/-28)	-6.4	240.8	262.5	-22	(+/-34)	-8.2
North Western	129.6	138.3	-9	(+/-30)	-6.4	204	194	10	(+/-37)	+5.1
South Eastern	174	180	-6	(+/-26)	-3.5	237	251	-14	(+/-30)	-5.5
Southern	166	149	17	(+/-21)	+11.7	210.2	217.7	-7	(+/-24)	-3.4
Western	157	138	19	(+/-25)	+14.1	194.4	187.7	7	(+/-28)	+3.6
Eastern Region**	186	197	-11	(+/-16)	-5.7	254	257	-3	(+/-17)	-1.3
Ireland**	170.4	177.4	-7	(+/-9)	-3.9	232.6	241.2	-9	(+/-10)	-3.6

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

Table IE 12: Person-based age-standardised rate of deliberate self harm in the Republic of Ireland in 2004 and 2003 by HSE area/region of residence and gender.

RATES BY COUNTY

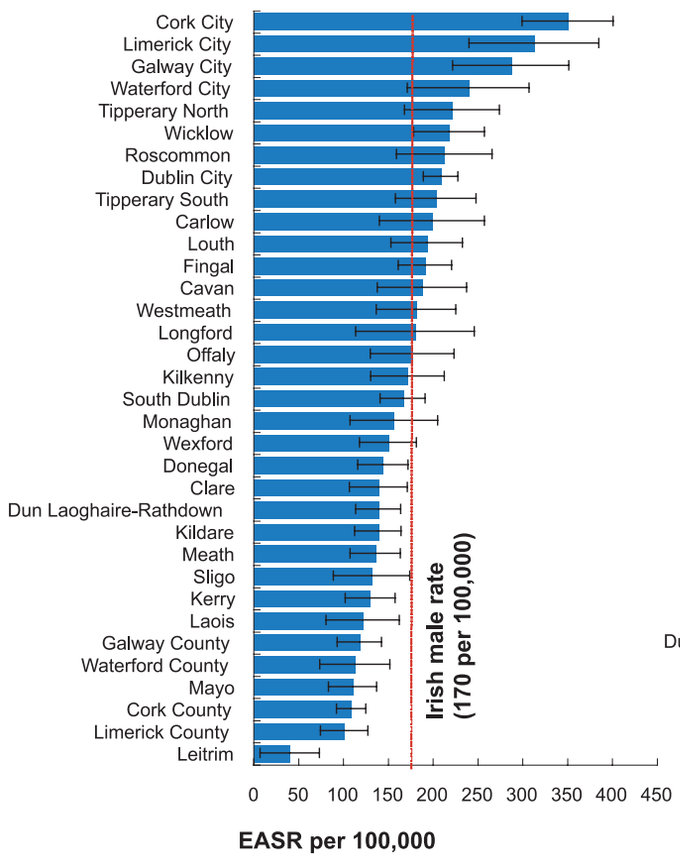


Figure IE 15a: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland by county/city of residence for men.

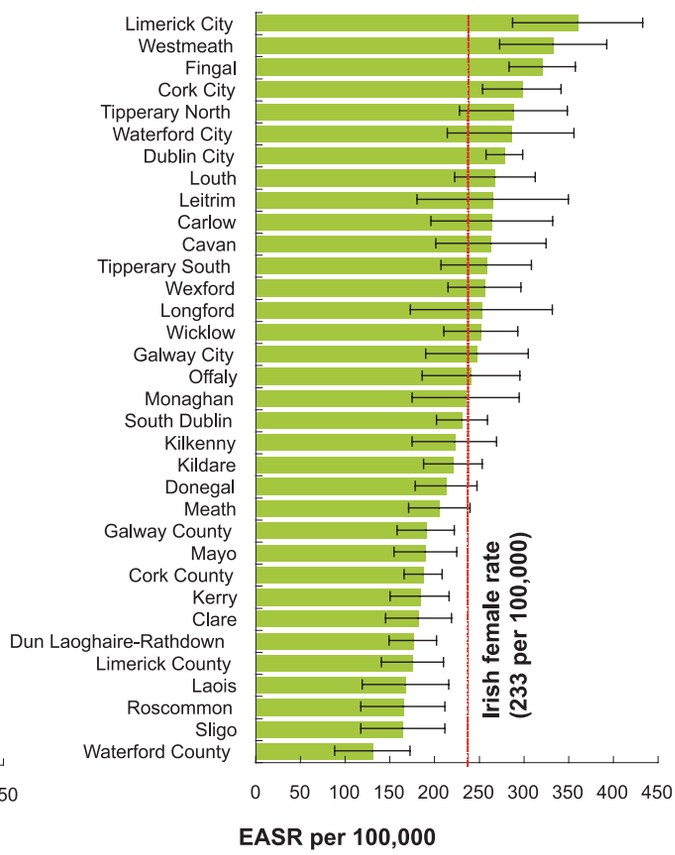


Figure IE 15b: Person-based European age-standardised rate (EASR) of deliberate self harm in the Republic of Ireland by county/city of residence for women.

There was widespread variation in male and female deliberate self harm rates when examined by county/city of residence. The male rate varied from 41 per 100,000 for Leitrim to 351 per 100,000 for Cork City. The lowest and highest female rates were recorded for Waterford County and Limerick City residents at 131 and 361 per 100,000, respectively. 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 (+37%). The gender difference was reversed in the cities of Cork and Galway and in Roscommon County where the female rate was actually 15%, 14% and 22% lower than the male rate.

Above average rates of deliberate self harm were recorded for male and female residents of the cities of Cork (+106% for men, +28% for women), Dublin (+23% for men, +20% for women), Galway (+69% for men, +7% for women), Limerick (+84% for men, +55% for women) and Waterford (+41% for men, +23% for women). Residents of the corresponding counties had far lower rates.

For the first time, the Registry's coverage of the HSE Eastern Region enabled the incidence of deliberate self harm to be estimated for its constituent counties and city boroughs. As mentioned above, the rates for Dublin city men and women were higher than the equivalent national rates. This was also the case for men in Wicklow and women in Fingal while the rate of self harm was relatively low for both genders in Dun Laoghaire-Rathdown and for men in Kildare.

There were some notable changes in deliberate self harm rates at county/city level between 2003 and 2004. The incidence of self harm by men in Cork City increased by 20% (from 293 to 351 per 100,000). This followed a 36% increase in the previous year and resulted in Cork City having the highest male rate in the country. Limerick City had by far the highest male deliberate self harm rate in 2003 but this fell by 35% from 481 to 313 per 100,000 in 2004. There was also a significant decrease in male deliberate self harm in Laois County, from an average rate of 200 per 100,000 to a low rate of 122 per 100,000 (-39%). While not statistically significant, there were considerable decreases, from high to average rates, among men in Louth (from 250 to 194 per 100,000, -22%) and Westmeath (from 231 to 182 per 100,000, -21%). There were relatively large increases observed in men in Roscommon (from 148 to 213 per 100,000, +44%) and in Monaghan (from 110 to 157 per 100,000, +43%) although the baseline rates were low.

For women, Limerick City, Westmeath, Cork City, Tipperary North and Waterford City had five of the six highest rates in 2004, just as they did in 2003. There were no statistically significant changes between the two years. The most notable decreases were the changes from high to average female rates in Longford (from 333 to 253 per 100,000, -24%) and Monaghan (from 305 to 236 per 100,000, -23%) and the change from average to low female rates in Laois (from 229 to 168, -26%), Kerry (from 233 to 184 per 100,000, -21%) and Galway County (from 236 to 191 per 100,000, -19%). The greatest increases affected the counties of Leitrim (from 199 to 266 per 100,000, +33%) and Mayo (from 146, to 190 per 100,000, +31%) both of which had relatively low female rates in 2003.

URBAN AND RURAL DISTRICT COMPARISON BY HSE AREA/REGION

Figure IE 16 illustrates the deliberate self harm rate for residents of urban districts and rural districts by HSE area/region. In each, the incidence of deliberate self harm was significantly higher in the urban district population. The difference was least pronounced in the Eastern Region where the urban district population had a 72% higher rate. The deliberate self harm rate was 134-174% higher in the urban district populations of the HSE areas with the exception of the North East where the difference was most pronounced (+222%).

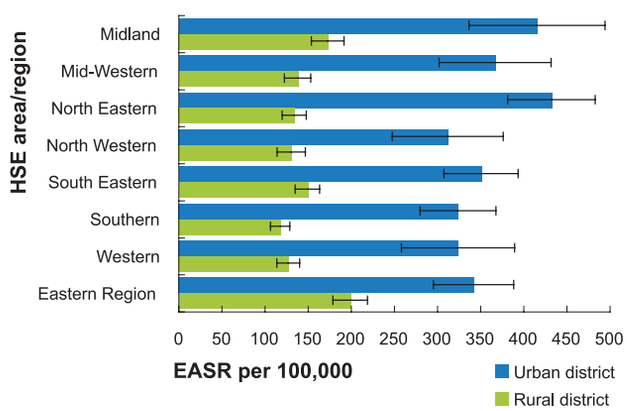


Figure IE 16: Person-based European age-standardised rate (EASR) of deliberate self harm for urban and rural district residents in the Republic of Ireland by HSE area/region.

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

	Eastern Region		Midland Area		Mid-Western Area		North Eastern Area		North Western Area		South Eastern Area		Southern Area		Western Area		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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10-14yrs	23	56	0	2	4	10	2	15	0	6	4	19	9	21	4	14	46	143
15-19yrs	196	334	29	64	52	85	29	91	12	55	70	129	78	132	56	120	522	1010
20-24yrs	311	341	42	51	105	74	67	85	22	41	82	90	137	132	76	91	842	905
25-29yrs	246	234	29	54	48	62	65	49	14	19	74	64	94	78	99	74	669	634
30-34yrs	253	259	39	32	68	79	58	55	27	49	60	78	96	77	56	62	657	691
35-39yrs	189	250	32	42	42	46	51	56	32	41	72	67	53	82	75	58	546	642
40-44yrs	169	312	14	29	36	58	38	45	18	17	49	66	59	71	32	65	415	663
45-49yrs	108	201	6	18	37	36	24	33	15	25	33	35	39	71	34	44	296	463
50-54yrs	82	112	13	14	20	12	10	26	12	15	39	35	17	46	18	19	211	279
55-59yrs	39	84	7	5	7	17	9	25	6	11	17	14	21	30	16	17	122	203
60-64yrs	26	50	2	1	5	9	5	11	3	3	12	25	13	15	9	7	75	121
65-69yrs	11	13	2	2	2	2	4	4	2	1	0	6	3	4	2	4	26	36
70-74yrs	8	5	3	1	1	4	4	4	1	2	4	1	3	0	1	1	25	18
75-79yrs	4	10	0	1	0	1	0	2	1	0	0	3	3	3	0	0	8	20
80-84yrs	3	0	1	0	0	1	1	0	0	1	1	1	0	1	1	3	7	7
85yrs+	1	4	0	0	0	0	0	0	0	0	0	1	1	1	0	2	2	8
Unknown	19	6	0	0	0	0	1	0	0	0	0	0	3	1	0	0	23	7
Total	1688	2271	219	316	427	496	368	501	165	286	517	634	629	765	479	581	4492	5850

This table does not include five episodes of deliberate self harm 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	148800	0	0	(+/-0)	0.0	(+/-0)	142300	0	0	(+/-0)	0.0	(+/-0)
5-9yrs	141200	0	0	(+/-0)	0.0	(+/-0)	133400	0	0	(+/-0)	0.1	(+/-0.3)
10-14yrs	142400	49	34	(+/-10)	1.0	(+/-0.7)	135000	150	111	(+/-18)	0.6	(+/-0.6)
15-19yrs	154100	449	291	(+/-27)	19.6	(+/-3.2)	146700	899	613	(+/-41)	4.6	(+/-1.6)
20-24yrs	170300	692	407	(+/-31)	31.1	(+/-3.8)	168500	787	467	(+/-33)	5.3	(+/-1.6)
25-29yrs	165000	543	329	(+/-28)	29.9	(+/-3.8)	164300	529	322	(+/-28)	4.7	(+/-1.5)
30-34yrs	160300	526	328	(+/-29)	23.5	(+/-3.4)	160500	549	342	(+/-29)	4.2	(+/-1.5)
35-39yrs	150500	438	291	(+/-28)	23.1	(+/-3.5)	149400	521	349	(+/-31)	5.6	(+/-1.7)
40-44yrs	140800	335	238	(+/-26)	24.9	(+/-3.8)	142900	482	337	(+/-31)	5.5	(+/-1.7)
45-49yrs	128800	252	196	(+/-25)	19.4	(+/-3.5)	129500	367	283	(+/-30)	7.3	(+/-2.1)
50-54yrs	119600	162	136	(+/-21)	21.9	(+/-3.8)	117900	246	208	(+/-27)	7.3	(+/-2.2)
55-59yrs	108700	97	90	(+/-18)	19.7	(+/-3.8)	105800	180	170	(+/-25)	6.2	(+/-2.2)
60-64yrs	83600	66	79	(+/-19)	22.2	(+/-4.6)	82500	99	121	(+/-24)	7.3	(+/-2.7)
65-69yrs	67400	26	38	(+/-15)	13.4	(+/-4.0)	70500	36	51	(+/-17)	4.0	(+/-2.1)
70-74yrs	54400	22	41	(+/-17)	14.0	(+/-4.5)	60900	18	29	(+/-14)	3.0	(+/-2.0)
75-79yrs	38000	8	20	(+/-14)	11.6	(+/-4.9)	52200	18	35	(+/-16)	5.0	(+/-2.8)
80-84yrs	23700	8	32	(+/-23)	10.1	(+/-5.8)	39000	6	15	(+/-13)	2.1	(+/-2.1)
85yrs+	13700	2	16	(+/-22)	5.8	(+/-5.8)	31100	9	28	(+/-19)	0.6	(+/-1.3)
Total****	2011300	3675	170	(+/-6)	17.2	(+/-0.8)	2032400	4896	233	(+/-7)	4.3	(+/-0.4)

* Deliberate self harm data incorporates the extrapolated HSE Eastern Region data. Thirty-nine 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 2000-2004.
*** 95% Confidence Interval.
**** The total rates are European age-standardised rates per 100,000.

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ISSN 1649-4326