NATIONAL SELF-HARM REGISTRY IRELAND

ANNUAL REPORT 2018

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Western Gateway Building, University College Cork

Foreword

The National Self-Harm Registry Ireland (NSHRI) was established over sixteen years ago at the request of the Department of Health and Children, by the National Suicide Research Foundation working in collaboration with the School of Public Health, University College Cork. It is funded by the Health Service Executive's National Office for Suicide Prevention. It is the world's first national registry of cases of intentional self-harm presenting to hospital emergency departments.

In recent years there has been a stabilisation in the rate of hospital-treated self-harm in Ireland, with an increase in self-harm detected in 2018. The increase was recorded for both men and women, across all age groups. It is important to highlight the increasing trend in young people, as well as in the use of methods associated with higher lethality. These statistics are of concern, and research which can examine the causes of such trends should be an urgent priority. Such emerging trends signal the need for multi-level responses to preventing self-harm, both targeted interventions for those engaging in self-harm as well as public health interventions at a population level to reduce the risk of self-harm for vulnerable individuals.

The Registry represents an important resource in the context of both national and international suicide prevention efforts. The World Health Organisation highlighted the importance of such systems, stating in their 2012 report "Preventing Suicide – A Global Imperative", that 'up-to-date surveillance of suicides and suicide attempts is an essential component of national and local suicide prevention efforts' (p.16). Ireland was the first country to recognise this, through the establishment of The National Self-Harm Registry Ireland, which has been recognised as a model of best practice by the World Health Organisation.

The Registry has informed core actions in the Irish National Strategy to Reduce Suicide in Ireland, *Connecting for Life 2015-2020*, and is a key component of the outcomes framework being used to monitor progress and examine the impact of implemented actions. The Registry has identified key trends and risk factors to inform policy and further research.

In 2019, two Health Research Board grants, worth more than €1 million, were awarded to researchers at the National Suicide Research Foundation and the School of Public Health in University College Cork. The first is a five-year fellowship which aims to examine the onset of self-harm in adolescence as well as identifying important risk factors for repeat self-harm and suicide. The second, a four-year programme of research, will examine how routine management of self-harm in acute settings impacts on patient outcomes, with regards repeat self-harm, suicide and premature mortality. The project will also identify the barriers and facilitators to implementing services in Ireland, in order to inform and optimise service delivery. Such innovative research is essential to further understand how best to develop appropriate responses and interventions for all persons who engage in self-harm.

I would like to acknowledge the on-going commitment and dedication of the data registration officers in ensuring the high quality operation of the Registry. We would also like to commend the hospital staff for their diligence and dedication in meeting the needs of individuals who present to hospital as a result of self-harm.

Dr Paul Corcoran
Head of Research
National Suicide Research Foundation, Cork.

Executive Summary

This is the seventeenth annual report from the National Self-Harm Registry Ireland. It is based on data collected on persons presenting to hospital emergency departments following self-harm in 2018 in the Republic of Ireland. The Registry had near complete coverage of the country's hospitals for the period 2002-2005 and, since 2006, all general hospital and paediatric hospital emergency departments in the Republic of Ireland have contributed data to the Registry.

Main findings

In 2018, the Registry recorded 12,588 presentations to hospital due to self-harm nationally, involving 9,785 individuals. The age-standardised rate of individuals presenting to hospital following self-harm in 2018 was 210 per 100,000. This was a significant increase of 6% on the rate of 199 per 100,000 in 2017. The rate in 2018 was 12% higher than in 2007, the year before the economic recession.

In 2018, the national male rate of self-harm was 193 per 100,000, 7% higher than 2017. The female rate of self-harm in 2018 was 229 per 100,000, 5% higher than 2017. Thus, the female rate of self-harm in 2018 was 7% higher than it was in 2007 whereas the male rate in 2018 was 19% higher than its pre-recession level.

Consistent with previous years, the peak rate for women was in the 15-19 years age group at 766 per 100,000, whereas the peak rate among men was in 20-24 year-olds at 543 per 100,000. These rates imply that one in every 131 girls in the age group 15-19 and one in every 184 men in the age group 20-24 years presented to hospital in 2018 as a consequence of self-harm. In 2018, the male rate of self-harm among 10-24 year-olds increased by 8%. The rate of self-harm among women aged 65-69 years increased by 47%.

There was variation in the rate of self-harm by region, with the highest rates recorded in urban areas. The 2018 report presents data by administrative city/ county, by Local Health Office (LHO) and by HSE Community Healthcare Organisation (CHO).

There were 539 presentations made by residents of homeless hostels and people of no fixed abode in 2018, accounting for approximately 4% of all presentations recorded by the Registry. The number of presentations by those with no fixed abode was 9% lower than 2017, but 57% higher than in 2007.

Consistent with previous years, intentional drug overdose was the most common method of self-harm, involved in almost two-thirds (62%) of self-harm presentations registered in 2018. Self-cutting was recorded in 30% of all episodes and was more common in men (31%) than in women (28%). Attempted hanging was involved in 9% of all self-harm presentations (12% for men and 5% for women). At 1,072, the number of presentations involving attempted hanging was 24% higher than 2017 (+22% for men and +30% for women). Presentations involving self-cutting increased by 17% in 2018. While rare as a method of self-harm, the number of presentations involving attempted drowning increased by 19% from 2017 to 2018 (from 367 to 437). Alcohol was involved in 30% of all cases. Alcohol was significantly more often involved in male episodes of self-harm than female episodes (34% and 27%, respectively).

In 2018, 72% (n=8,490) of patients were assessed by a member of the mental health team in the presenting hospital. In 2018, 13% of patients left the emergency department before a next care recommendation could be made. Most commonly, 56% of cases were discharged following treatment in the emergency department. The majority of these (79%) were provided with a recommended referral or follow-up appointment. There was considerable variation in recommended next care by hospital, particularly in relation to the proportion of patients admitted to the presenting hospital, the proportion leaving before a recommendation and the proportion receiving a mental health assessment. This observed variation is likely to be due to variation in the availability of resources and services but it also suggests that assessment and management procedures with respect to self-harm patients are likely to be variable and inconsistent across the country.

The proportion of acts accounted for by repetition in 2018 (22.3%) was similar to previous years. Of the 9,785 self-harm patients who presented to hospital in 2018, 1,427 (14.6%) made at least one repeat presentation during the calendar year. Therefore, repetition continues to pose a major challenge to hospital staff and family members involved. In 2018, at least five self-harm presentations were made by 153 individuals. These represented 2% of all self-harm patients, but accounted for 10% of all self-harm presentations recorded. As in previous years, self-cutting was associated with an increased level of repetition. Risk of repetition was greatest in the days and weeks following a self-harm presentation to hospital and the risk increased markedly with each subsequent presentation.

Recommendations

In 2018, the rate of self-harm in Ireland increased by 6%, following a period of stabilisation over the past seven years, since 2010. The observed increase in self-harm in 2018 was evident across all ages and for both men and women, with an increase in presentations recorded in most hospitals. This increase can be attributed to presentations involving attempted hanging, self-cutting and street drugs. These trends underline the need to further develop mental health services in Ireland for individuals engaging in self-harm, particularly for young people. In addition, activities to reduce access to means, early intervention and prevention measures, and regulation of illegal or restricted substances are critical to reducing the incidence of self-harm in Ireland.

Self-harm among young people

The highest rates of self-harm are consistently seen in young people. The findings of this report show a further increase in self-harm among young people aged 10-24 years, following a 22% increase in rates between 2007 and 2016.[1] A recent study showed a similar increase in 'non-suicidal self-harm' (NSSH) in England between 2000 and 2014, particularly among women aged 16-24 years, a trend associated with an increase in self-cutting.[2] Changes in mental health symptoms may be contributing to increasing rates of self-harm,[3] particularly among girls, given the strong associations between mental disorders and self-harm in adolescents. A European survey found that 4% of young people aged 15-24 years reported chronic depression, with the rate highest in Ireland at 12%.[4] There is a need to ensure timely and appropriate child and adolescent mental health services in Ireland and the Registry findings support the priorities identified by the HSE's National Service Plan 2019.[5] In particular, both evidence-based mental health programmes and appropriate referral and treatment options are crucial to address the needs of young people in the key transition stages between childhood and adolescence and into adulthood. Increases in self-harm among children aged 10-14 years indicate that the age of onset of self-harm is decreasing. These trends underline the need for preventative interventions, such as school-based universal mental health programmes that have been found to be effective in preventing suicide attempts in young adolescents.[6] Programmes in primary and post-primary settings are required and should focus on preventing suicidal behaviour as well as building resilience.

Restricting access to means

The proportion of presentations involving methods associated with high lethality has steadily increased in recent years. There have been further increases recorded in 2018, in both men and women. It has previously been recommended that more innovative and intensified efforts should be made to reduce self-harm and suicide by hanging, include monitoring of media and social media platforms which have been associated with increased suicides involving asphyxia and other highly lethal methods.[7]

Intentional drug overdose is the most common method of self-harm recorded by the Registry. In 2018, a sharp increase in the use of street drugs was recorded, involved in one in ten

[1] Griffin, E, et al. (2018). Increasing rates of self-harm among children, adolescents and young adults: A 10-year national registry study 2007-2016. *Social Psychiatry and Psychiatric Epidemiology*, 53: 663-71.

[2] McManus, S, et al. (2019). Prevalence of non-suicidal self-harm and service contact England, 2000-14: Repeated cross-sectional surveys of the general population. *Lancet Psychiatry*, 6: 573-81.

[3] Bor, W, et al. (2014). Are child and adolescent mental health problems increasing in the 21st century? A systematic review. *Australia & New Zealand Journal of Psychiatry*, 48: 606–16.

[4] Eurofound (2019). Inequalities in the access of young people to information and support services. Publications Office of the European Union, Luxembourg. *https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef19041en.pdf*

[5] Health Service Executive (2019). National Service Plan 2019. *https://www.hse.ie/eng/services/publications/serviceplans/national-service-plan-2019.pdf*

[6] Wasserman, D, et al. (2015). School-based suicide prevention programmes: The SEYLE cluster-randomised, controlled trial. *The Lancet*, 385:136-44.

[7] Sinyor, M, et al. (2018). The association between suicide deaths and putatively harmful and protective factors in media reports. *Canadian Medical Association Journal*. 190: E900-07.

intentional drug overdoses. Cannabis was the most common street drug recorded, particularly among young men, reflecting an increased prevalence of cannabis use among this demographic in the general population.[8] A recent systematic review and meta-analysis[9] found that cannabis consumption in adolescence was associated with increased risk of developing major depression in young adulthood, and an increased risk of suicidal ideation and suicide attempts in young adulthood. The Registry detected an increase in the involvement of cocaine in self-harm presentations in 2018, primarily among those aged 35-44 years. Public health policies to address the use of illegal substances should be further developed. There is growing evidence that such activities can result in positive outcomes for the general population. An Irish study reported that legislation introduced in 2010 to end the trade of new psychoactive substances in head shops resulted in a decrease of drug-related psychiatric admissions between May 2010 and September 2012, with the biggest effect observed among young males aged 18-24 years.[10] The Registry observed a decrease in the number of street drugs involved in intentional overdose between 2011 and 2013, an effect most pronounced among men. However since 2013, the number of presentations involving street drugs has increased by 77%.

Alcohol is a consistent factor associated with self-harm, present in approximately 30% of presentations to hospital, and associated with peaks in attendances at night, weekends and on public holidays. Alcohol is an important precipitating factor for self-harm, as it may have a disinhibiting effect, as well as increasing aggressiveness, psychological distress and impulsivity.[11] Individuals presenting with self-harm may also have a diagnosis for an alcohol-related disorder. Such complex presentations indicate the need for active consultation and collaboration between the mental health services and addiction treatment services for patients who present with dual diagnoses.[12] The introduction of the Public Health (Alcohol) Act 2018 is a positive development, introducing evidence-based policies to reduce the burden of alcohol harm on our society by improving health, safety and wellbeing. The Registry will monitor the impact of the legislation and associated measures on alcohol-related self-harm.

Clinical management of self-harm

The reported proportion of patients receiving a mental health assessment (72%) as part of their care is similar to previous years, and higher than that reported in other countries. The National Clinical Programme for the Assessment and Management of people presenting to the Emergency Department following Self-Harm has now been implemented across 24 adult emergency departments in Ireland.[13] One of the aims of the programme is to improve the response received by every individual presenting with self-harm, regardless of the nature of the self-harm involved. The Programme provides a number of evidence-based recommendations on the management of self-harm in emergency department (see next page).

[8] Bates, G. (2017). The drugs situation in Ireland: an overview of trends from 2005 to 2015. Centre for Public Health at Liverpool John Moores University.

[9] Gobbi, G, et al. (2019). Association of cannabis use in adolescence and risk of depression, anxiety, and suicidality in young adulthood: A systematic review and meta-analysis. *JAMA Psychiatry*, 76: 426-34.

[10] Smyth, BP, et al. (2019). Legislation targeting head shops selling new psychoactive substances and changes in drug-related psychiatric admissions: A national database study. *Early Intervention in Psychiatry*, 1-8.

[11] Hufford, MR. (2001). Alcohol and suicidal behavior. *Clinical Psychology Review*, 21, 797–811.

[12] Department of Public Health HSE South (2019). A focus on alcohol and health in Cork and Kerry. A report of the Director of Public Health. Cork: Department of Public Health HSE South. *https://www.drugsandalcohol.ie/30602/*

[13] Health Service Executive (2016). National Clinical Programme for the Assessment and Management of Patients Presenting to the Emergency Department following Self-Harm. *https://www.hse.ie/eng/services/publications/clinical-strategy-and-programmes/national-clinical-programme-for-the-assessment-and-management-of-patients-presenting-to-emergency-departments-following-self-harm.pdf*

However the findings from the 2018 Registry report indicate that there is still considerable variation in recommended next care across hospitals, and on average, one in eight patients leave the emergency department without being seen by a clinician or without a next care recommendation. Ongoing support is warranted for the implementation of the National Clinical Programme and the application of measures to standardize provision of care.

All patients should receive an empathic, compassionate and timely response within the emergency department

All patients receive an expert biopsychosocial assessment of needs and risks

In all cases every effort should be made to encourage the patient to call a relative/ supportive friend to assist in the assessment and management

All patients should receive follow up and connecting to next appropriate care

Evidence-based recommendations from the The National Clinical Programme for the Assessment and Management of people presenting to the Emergency Department following Self-Harm.[13]

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Recent publications from the Registry (2018-2019)

METHOD OF SELF-HARM AND RISK OF SELF-HARM REPETITION: FINDINGS FROM A NATIONAL SELF-HARM REGISTRY

Background

Risk of self-harm repetition has consistently been shown to be higher following self-cutting compared to intentional drug overdose (IDO) and other self-harm methods. The utility of previous evidence is limited due to the large heterogeneous method categories studied. This study examined risk of hospital presented self-harm repetition according to specific characteristics of self-harm methods. Data on consecutive self-harm presentations to hospital emergency departments (2010–2016) were obtained from the National Self-Harm Registry Ireland. Associations between self-harm method and repetition were analysed using survival analyses.

Findings

Overall, 65,690 self-harm presentations were made involving 46,661 individuals. Self-harm methods associated with increased risk of self-harm repetition were minor and severe self-cutting, intentional drug overdoses (IDOs) involving multiple drugs including psychotropic drugs and self-harm by blunt object. Minor self-cutting was the method associated with highest repetition risk. Repetition risk was similar following IDOs of four or more drugs involving psychotropic drugs, severe self-cutting and blunt object.

Conclusion

Self-harm method and the associated risk of repetition should form a core part of biopsychosocial assessments and should inform follow-up care for self-harm patients. The observed differences in repetition associated with specific characteristics of IDO underline the importance of safety planning and monitoring prescribing for people who have engaged in IDO.

Source: Cully G, Corcoran, P, Leahy, D, Griffin E, Dillon, C, Cassidy, E, Shiely, F, Arensman E (2019). Method of self-harm and risk of self-harm repetition: findings from a national self-harm registry. Journal of Affective Disorders, 246: 843-50. https://doi.org/10.1016/j.jad.2018.10.372

THE ASSOCIATION BETWEEN SELF-HARM AND AREA-LEVEL CHARACTERISTICS IN NORTHERN IRELAND: AN ECOLOGICAL STUDY

Background

Self-harm presentations can vary both within and between regions due to a number of complex and multi-faceted factors. In Northern Ireland, self-harm rates are higher than those reported in neighbouring jurisdictions and elevated rates can be found among men and in urban areas. To date, there are relatively few studies which have explored the relationship between area-level factors and self-harm presentations. This study took an ecological approach, using measures of population density, social fragmentation and a multiple deprivation measure to examine the association of area-level characteristics and hospital treated self-harm presentations.

Findings

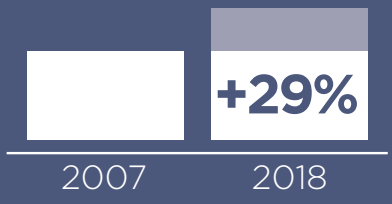
Overall, 14,477 individuals presented to hospitals in Northern Ireland between 2013 and 2015. Within this cohort, the rate of self-harm was higher among men (478 per 100,000) compared to women (467 per 100,000) and city residents in Belfast (680 per 100,000) and Derry (751 per 100,000) compared to those in the rest of Northern Ireland (261 per 100,000). A positive association was found between increasing rates of self-harm and measures of deprivation, social fragmentation and population density. Rates of self-harm were more than four times higher in the most deprived areas. Rates of self-harm were also more than four times higher in areas with the highest social fragmentation scores and more than three times higher in the most densely-populated areas. In particular, areas deprived in terms of employment, crime and disorder, education skills and training and health and disability had the highest rates of self-harm. These associations were more pronounced for men.

Conclusion

These findings highlight the challenges faced by health services in responding to self-harm, engaging vulnerable populations and tackling health inequalities. Self-harm rates are highest for those residing in highly deprived areas, where unemployment, crime and low levels of education are challenges. Community interventions tailored to meet the needs of specific areas may be effective in reducing suicidal behaviour.

Source: Griffin E, Bonner B, Dillon CB, O'Hagan D, Corcoran P (2019). The association between self-harm and area-level characteristics in Northern Ireland: an ecological study. European journal of public health. https://doi.org/10.1093/eurpub/ckz021

2018 Statistics at a Glance



Rates in young people aged 10-24 years increased by 29% between 2007-2018

Presentations
12,588

Persons
9,785

RATES:

210
per 100,000

1 in every 476
had a self-harm act

Male: 20-24 year-olds (543 per 100,000)
1 in every 184

Female: 15-19 year-olds (766 per 100,000)
1 in every 131

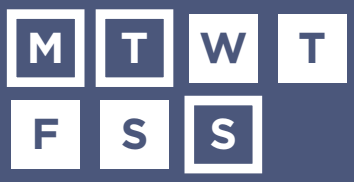
PEAK RATES WERE AMONG YOUNG PEOPLE

TIME:

Peak time

11pm

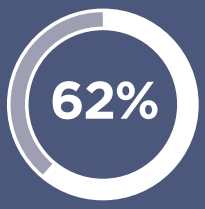
Almost **half (44%)** of presentations were made between 7pm-3am



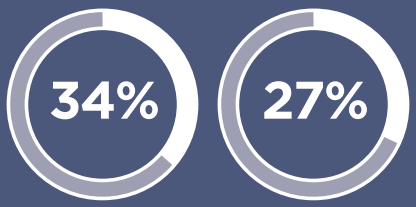
Monday, Tuesday and **Sunday** had the highest number of self-harm presentations

METHOD:

2 in every 3
involved **overdose**



3 in every 10
involved **alcohol**



Men **Women**

3 in every 10
involved **self-cutting**

TREATMENT:

72% received an assessment in the ED

79% received a follow-up recommendation after discharge

13% left ED before a recommendation was made

1 in 7
persons
had a repeat
attendance in 2018

Impact of the Registry at global level

E-Learning Programme for Establishing and Maintaining Surveillance Systems for Suicide Attempts and Self-Harm

The World Health Organisation's (WHO) report "Preventing suicide: a global imperative" published in 2014, identified a need for many countries to have guidance on the surveillance of suicide attempts presenting to general hospitals. Currently, the number of countries that have established a surveillance system for suicide attempts is limited, and comparison between established systems is often hindered by differences between systems.

Each year, close to 800,000 people die as a result of suicide, and for each suicide, there are likely to have been more than 20 suicide attempts. Having engaged in one or more acts of attempted suicide or self-harm is the single most important predictor of death by suicide. Consequently, long-term monitoring of the incidence, demographic patterns and methods involved in cases of attempted suicide and self-harm presenting to hospitals in a country or region provides important information that can assist in the development of suicide prevention strategies.

In 2015, the WHO recognised the NSRF as a WHO Collaborating Centre for Surveillance and Research in Suicide Prevention (WHOCC) and in 2018 commissioned the development of an E-Learning Programme, based on the WHO Practice Manual for Establishing and Maintaining Surveillance Systems for Suicide Attempts and Self-Harm (2016).

The aims of the E-Learning Programme are to facilitate surveillance of suicide attempts and self-harm at global level and to improve the accurate reporting of hospital based suicide attempts and self-harm. In 2018, the NSRF and WHOCC, in collaboration with the Department of Mental Health and Substance Abuse of the World Health Organisation (WHO), produced the E-Learning programme, based on the WHO Practice Manual. The work involved preparing different modules, including a training module with additional test vignettes.

The E-Learning Programme is a tool for countries to use in setting up a public health surveillance system for suicide attempts and self-harm cases presenting to general hospitals. This programme facilitates training and capacity building in places where face-to-face training can be challenging.

Since the launch of the E-Learning Programme, it has been accessed intensively by many countries, and preparations are currently underway to translate the programme into Russian.

The E-Learning Programme can be accessed here:

https://suicideresearchpreventionelearning.com/

Methods

Background

The National Suicide Research Foundation was founded in November 1994 by the late Dr Michael J Kelleher and is governed by a Board of Directors. The National Suicide Research Foundation team is led by Ms Eileen Williamson (Chief Executive Officer), Dr Paul Corcoran (Head of Research) and Professor Ella Arensman (Chief Scientist). Dr Paul Corcoran is also Head of the National Self-Harm Registry Ireland. Dr Eve Griffin is the Manager of the Registry.

Funding statement

The National Self-Harm Registry Ireland is a national system of population monitoring for the occurrence of hospital-treated self-harm. It was established, at the request of the Department of Health and Children, by the National Suicide Research Foundation and is funded by the Health Service Executive's National Office for Suicide Prevention. This report has been commissioned by the National Office for Suicide Prevention.

Definition and terminology

The Registry uses the following as its definition of self-harm: '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 was developed by the WHO/Euro Multicentre Study Working Group and was associated with the term 'parasuicide'. Internationally, the term parasuicide has been superseded by the term 'deliberate self-harm' and consequently, the Registry has adopted the term 'self-harm'. The definition includes acts involving varying levels of suicidal intent and various underlying motives such as loss of control, cry for help or self-punishment.

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 self-harm act are included.

Exclusion criteria

The following cases are **NOT** considered to be 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 has undertaken 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 emergency department. Results indicated that there is a very high level of agreement between the data registration officers (Kappa statistic of 0.90 in 2017). Furthermore, the data are continuously checked for consistency and accuracy.

Data recording

Since 2006, the Registry has recorded its data onto encrypted laptop computers and transferred the data electronically to the offices of the National Suicide Research Foundation. Data for all self-harm presentations made in 2018 were recorded using this bespoke electronic system.

Data items

A minimal dataset has been developed to determine the extent of 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 self-harm by the same individual, it is impossible to identify an individual on the basis of the data recorded.

Initials

Initial letters from an individual self-harm patient's name are recorded in an encrypted form by the Registry data entry system for the purposes of avoiding duplication, ensuring that repeat episodes are recognised and calculating incidence rates based on persons rather than events.

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 self-harm presentations by the same individual, the date of birth is used to calculate age.

Area of residence
Patient addresses are coded to the appropriate electoral division and small area code where applicable.

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 Tenth Revision of the WHO's International Classification of Diseases codes for intentional injury (X60-X84). The main methods are overdose 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 self-cutting. In this report, results generally relate to the 'main 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. For acts involving 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.

Mental health assessment
Whether the individual presenting had a review or assessment by the psychiatric team in the presenting hospital emergency department is recorded.

Recommended next care
Recommended next care following treatment in the hospital 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, the Irish Data Protection (Amendment) Act of 2003 and the General Data Protection Regulation 2018. 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 Service Executive (HSE) ethics committees.

Registry coverage

In 2018, self-harm data were collected from hospitals in the Republic of Ireland (pop: 4,856,900).

There was complete coverage of all acute hospitals in the Ireland East Hospital Group – Mater Misercordiae University Hospital, Midland Regional Hospital, Mullingar, Our Lady's Hospital Navan, St. Columcille's Hospital, Loughlinstown, St. Luke's Hospital, Kilkenny, St. Michael's Hospital, Dun Laoghaire, Wexford General Hospital and another hospital whose ethics committee stipulated that it should not be named in Registry reports.

There was complete coverage of all acute hospitals in the Dublin Midlands Hospital Group – Midland Regional Hospital, Portlaoise, Midland Regional Hospital, Tullamore, Naas General Hospital, St. James's Hospital and Adelaide and Meath Hospital Tallaght Hospital (adults).

There was complete coverage of all acute hospitals in the RCSI Hospital Group – Beaumont Hospital, Cavan General Hospital, Connolly Hospital, Blanchardstown and Our Lady of Lourdes Hospital, Drogheda.

There was complete coverage of all acute hospitals in the South/ South West Hospital Group – Bantry General Hospital, Cork University Hospital, University Hospital, Kerry, Mallow General Hospital, Mercy University Hospital, Cork, South Tipperary General Hospital and University Hospital, Waterford.

There was complete coverage of all acute hospitals in the University of Limerick Hospital Group – Ennis Hospital, Nenagh Hospital, St. John's Hospital, Limerick and University Hospital, Limerick.

There was complete coverage of all acute hospitals in the Saolta University Health Care Group – Galway University Hospital, Letterkenny General Hospital, Mayo General Hospital, Portiuncula Hospital, Ballinasloe and Sligo Regional Hospital.

There was complete coverage of all hospitals in the Children's Hospital Group – Children's University Hospital at Temple Street, National Children's Hospital at Tallaght Hospital and Our Lady's Children's Hospital, Crumlin.

In total, self-harm data were collected for the full calendar year of 2018 for all 36 acute hospitals that operated in Ireland during this year. As mentioned previously, since 2006 the Registry has had complete coverage of all acute hospitals in Ireland.

In 2013, a number of hospital emergency departments were re-designated as Model 2 status hospitals as part of the HSE's *Securing the Future of Smaller Hospitals* framework, with some of these hospitals closing their emergency department and others operating on reduced hours. The hospitals which continue to have emergency departments on reduced hours include: Bantry General Hospital, Ennis Hospital, Mallow General Hospital, Nenagh Hospital, St. Columcille's Hospital Loughlinstown and St. John's Hospital Limerick. Data from these hospitals continue to be recorded by the Registry for 2018.

Population data

For 2018, the Central Statistics Office population estimates were utilised. These estimates provide age-sex-specific population data for the country and its constituent regional authority areas. Proportional differences between the 2018 regional authority population estimates and the equivalent National Census 2016 figures were calculated and applied to the National Census 2016 population figures for Irish cities, counties and HSE region figures in order to derive population estimates for 2018. For HSE Local Health Office (LHO) areas and Community Healthcare Organisation (CHO) areas, National Census 2016 population data were utilised.

Calculation of rates

Self-harm rates were calculated based on the number of persons resident in the relevant area who engaged in 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 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 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 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.

A note on small numbers

Calculated rates that are based on less than 20 events may be an unreliable measure of the underlying rate. In addition, self-harm events may not be 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.

The Registry recorded four cases of self-harm for which patient initials, gender or date of birth were unknown. These four cases have been excluded from the findings reported here. In addition, a small number of self-harm patients presented to hospital more than once on the same calendar day. This happened for a variety of reasons including being transferred to another hospital, absconding and returning, etc. These patients were considered as receiving one episode of care and were recorded once in the finalised Registry database for 2018.

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 $n \pm 2\sqrt{n}$. For example, if 25 self-harm presentations are observed in a specific region in one year, then the 95% confidence interval will be $25 \pm 2\sqrt{25}$ 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 the 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.

Mapping of self-harm data

Rates of self-harm by gender according to city/ county of residence are illustrated in the report using maps. QGIS, version 2.18.16, was used to generate the maps (www.qgis.org).

SECTION I:
Hospital Presentations

Individuals who presented to hospital with self-harm in the Republic of Ireland

For the period from 1 January to 31 December 2018, the Registry recorded 12,588 self-harm presentations to hospital that were made by 9,785 individuals. Thus, the number of self-harm presentations was 8% higher than 2017 and the number of persons involved increased by 7%. Table 1 summarises the changes in the number of presentations and persons since the Registry reached near national coverage in 2002.

	PRESENTATIONS		PERSONS	
YEAR	Number	% difference	Number	% difference
2002	10,537	-	8,421	-
2003	11,204	+6%	8,805	+5%
2004	11,092	-1%	8,610	-2%
2005	10,789	-3%	8,594	-<1%
2006	10,688	-1%	8,218	-4%
2007	11,084	+4%	8,598	+5%
2008	11,700	+6%	9,218	+7%
2009	11,966	+2%	9,493	+3%
2010	12,337	+3%	9,887	+4%
2011	12,216	-1%	9,834	-<1%
2012	12,010	-2%	9,483	-4%
2013	11,061	-8%	8,772	-8%
2014	11,126	+<1%	8,708	-<1%
2015	11,189	+1%	8,791	+1%
2016	11,445	+2%	8,876	+1%
2017[1]	11,620	+2%	9,114	+3%
2018	12,588	+8%	9,785	+7%

Table 1: Number of self-harm presentations and persons who presented in the Republic of Ireland in 2002-2018 (2002-2005 figures extrapolated to adjust for hospitals not contributing data).

[1]Figures for 2017 have been updated to include an additional 20 cases which were late registered.

The age-standardised rate of individuals presenting to hospital in the Republic of Ireland following self-harm in 2018 was 210 (95% Confidence Interval (CI): 206 to 215) per 100,000. This was a significant increase (+6%) on the rate of 199 (95% CI: 195 to 203) per 100,000 from 2017. The incidence of self-harm in Ireland is examined in detail in Section II of this report.

The number of self-harm presentations in the Republic of Ireland by hospital group, age and gender are given in Appendix 1. Of the recorded presentations in 2018, 45% were made by men and 55% were made by women.

Self-harm episodes were generally confined to the younger age groups. Half of all presentations (50%) were by people under 30 years of age and 86% of presentations were by people aged less than 50 years.

In most age groups the number of self-harm 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 female presentations. The number of self-harm presentations made by men was slightly higher than the number made by women in the 20-39 year age group.

The number of self-harm presentations made by residents of homeless hostels and people of no fixed abode was 539, representing 4.0% of all presentations. This figure is 9% lower than that recorded in 2017 (n=591). A minority (50; 0.4%) of presentations were made by hospital inpatients.

Self-harm by HSE hospital group

Based on provisional figures acquired from the HSE Business Information Unit, self-harm accounted for 0.91% of total attendances to general emergency departments in the country. This percentage of attendances accounted for by self-harm varied by HSE hospital group from 0.27% in the Children's, to 0.87% in the Saolta University, 0.89% in the University of Limerick and Ireland East, 1.00% in the RCSI, and 1.05% in the South/ South West and 1.14% in the Dublin Midlands hospital group.

The proportion of self-harm presentations in each hospital group in 2018 ranged from 3% in the Children's, 7% in the University of Limerick, to 15% in the Saolta University and RCSI, 18% in the Dublin Midlands, 20% in the South/ South West and 22% in the Ireland East hospital group.

The gender balance of recorded episodes in 2018 (at 45% men to 55% women) varied by hospital group (Figure 1). Self-harm presentations by women outnumbered those by men in all hospital groups.

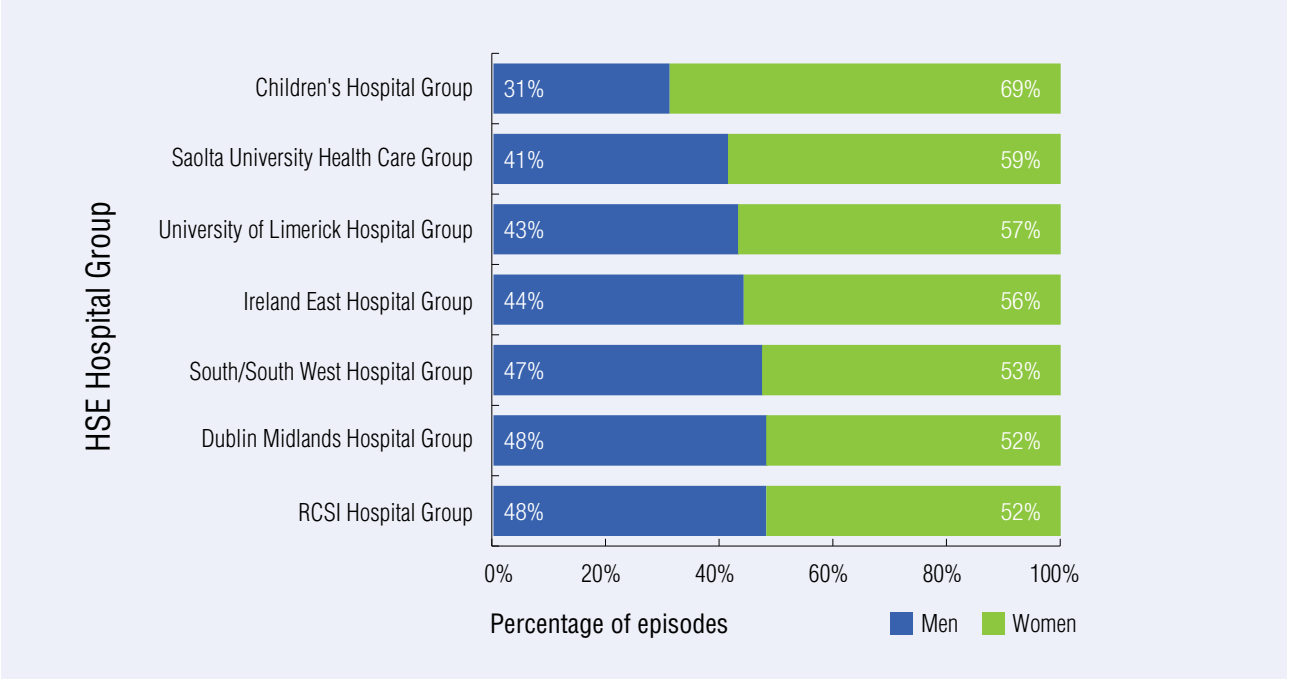


Figure 1: Gender balance of self-harm presentations by HSE hospital group, 2018

Annual change in self-harm presentations to hospital

The national increase in the number of self-harm presentations to hospital in 2018 was reflected at the level of the individual hospitals (Figures 2a and 2b). Overall, 28 general hospitals saw an increase in self-harm presentations between 2017 and 2018, while four general hospitals saw a decrease during the same period.[2]

[2]It should be noted that in small hospitals, large percentage changes are based on relatively small numbers.

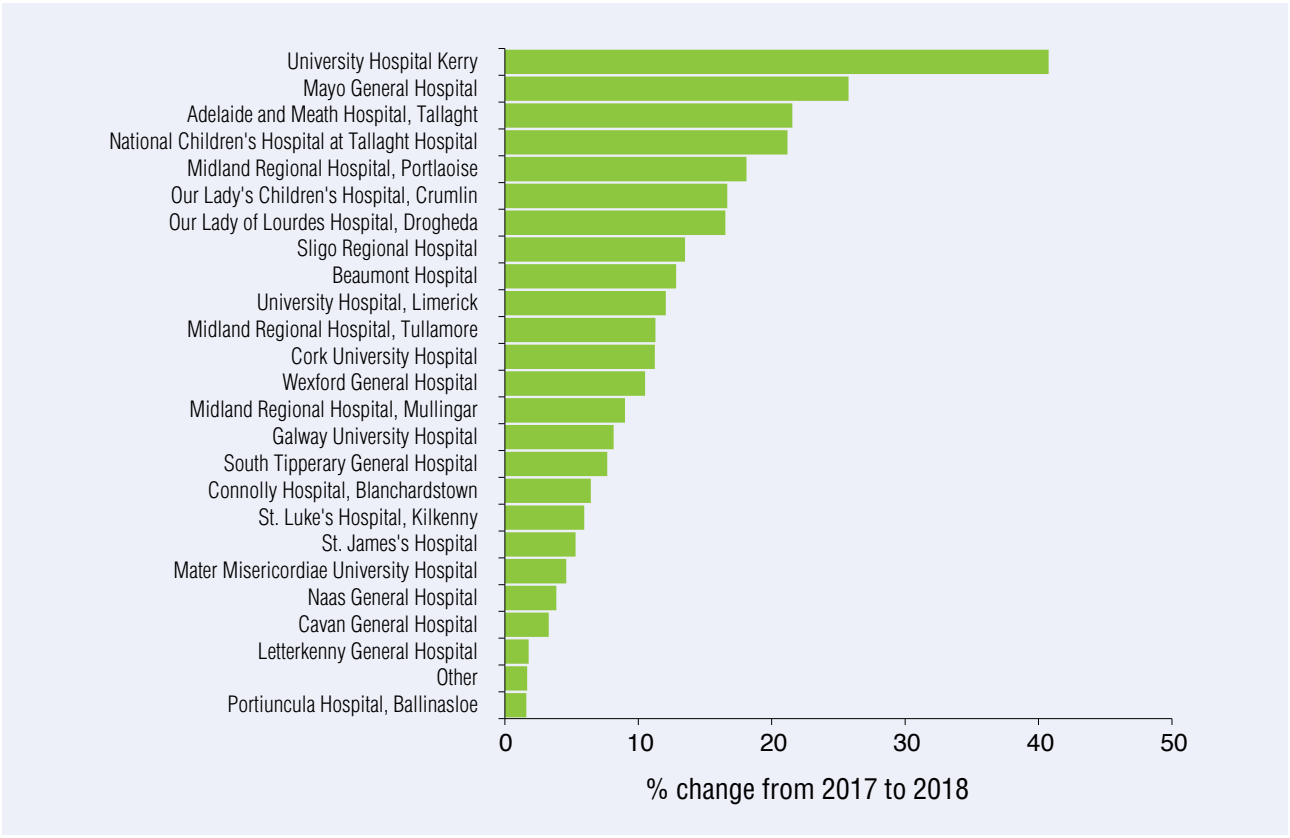


Figure 2a: Hospitals receiving more self-harm presentations in 2018.
Note: This figure excludes three hospitals where the increases were based on small numbers (<5).

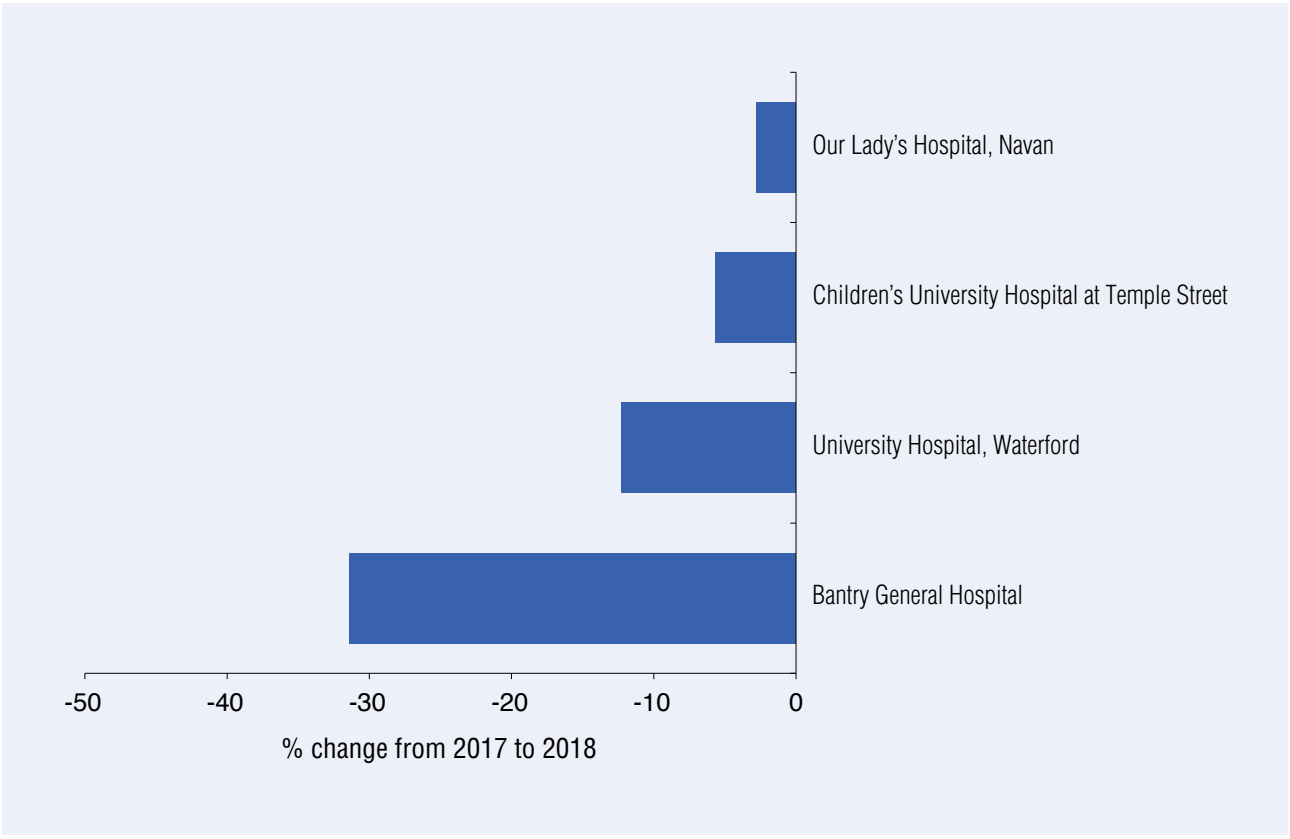


Figure 2b: Hospitals receiving fewer self-harm presentations in 2018.

Episodes by time of occurrence

Variation by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Men	469	430	465	422	528	475	500	470	457	503	459	483	5661
Women	577	513	550	616	677	552	551	641	565	604	565	516	6927
Total	1046	943	1015	1038	1205	1027	1051	1111	1022	1107	1024	999	12588

Table 2: Number of self-harm presentations in 2018 by month for men and women.

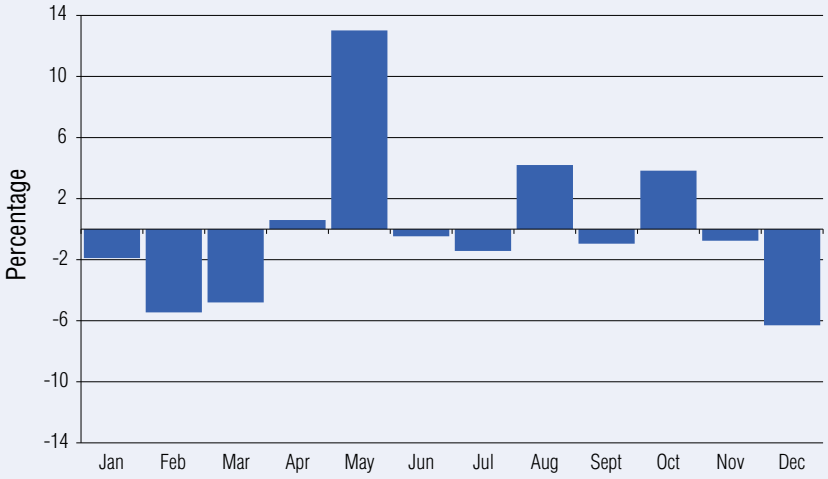


Figure 3: Percentage difference between the observed and expected number of self-harm presentations by month in 2018.

The monthly average number of self-harm presentations to hospitals in 2018 was 1,049. Figure 3 illustrates the percentage difference between observed and expected number of presentations, accounting for the number of days in each calendar month. In 2018, there were more self-harm presentations than might be expected in May (+13%), August (+4%) and October (+4%). The end of year fall in presentations was similar to previous years. Between November and March, there were, on average, 4% fewer presentations than might be expected.

Variation by Day

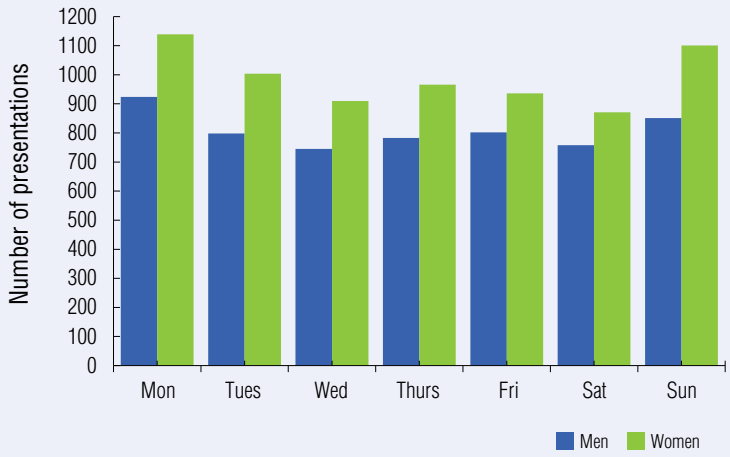


Figure 4: Number of presentations by weekday, 2018.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Men	924	798	745	783	802	758	851	5661
	(16.3%)	(14.1%)	(13.2%)	(13.8%)	(14.2%)	(13.4%)	(15%)	(100%)
Women	1139	1004	910	966	936	871	1101	6927
	(16.4%)	(14.5%)	(13.1%)	(13.9%)	(13.5%)	(12.6%)	(15.9%)	(100%)
Total	2063	1802	1655	1749	1738	1629	1952	12588
	(16.4%)	(14.3%)	(13.1%)	(13.9%)	(13.8%)	(12.9%)	(15.5%)	(100%)

Note: On average, each day would be expected to account for 14.3% of presentations.
Table 3: Self-harm presentations in 2018 by weekday.

As in previous years, the number of self-harm presentations was highest on Mondays, Tuesday and Sundays. These days accounted for 46% of all presentations. Numbers fell after Tuesday before rising again on Sunday.

During 2018, there were an average of 34 self-harm presentations to hospital each day. There were 24 days in 2018 on which 45 or more self-harm presentations were made, including January 1st, New Year's Day (n=49), May 1st, May Bank Holiday (n=50) and December 27th (n=56). There were six days in 2018 on which 20 or fewer self-harm presentations were made, including December 31st, New Year's Eve (n=20).

Variation by Hour

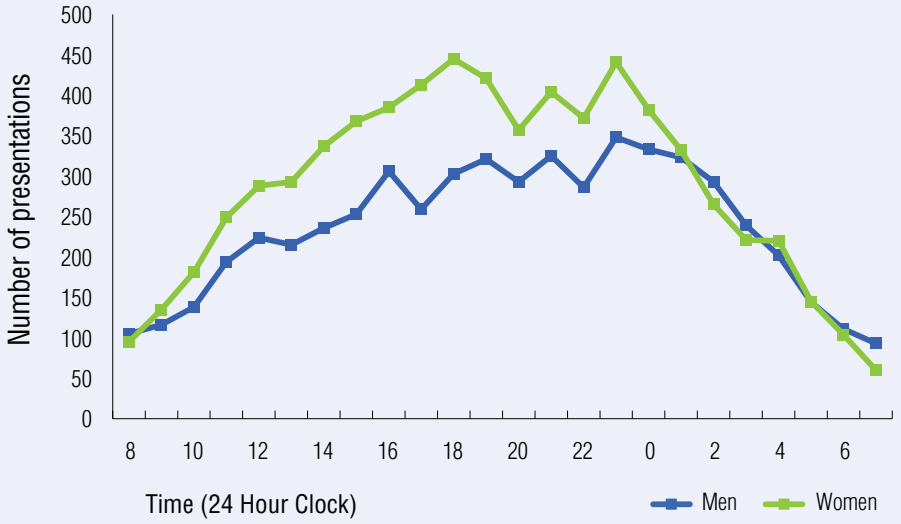


Figure 5: Number of presentations by time of attendance.

As in previous years, there was a striking pattern in the number of self-harm presentations seen over the course of the day. The numbers for both men and women gradually increased during the day. The peak for men was 11pm, while the peak for women was 6pm and 11pm. Almost half (44%) of the total number of presentations were made during the eight-hour period 7pm-3am. This contrasts with the quietest eight-hour period of the day, from 5am-1pm, which accounted for just 19% of all presentations.

Over half (53%) were brought to hospital by ambulance and a further 3% were brought by other emergency services such as An Garda Siochana. The proportion of cases brought to the emergency department by ambulance or other emergency services varied over the course of the day from 43% for presentations between noon and 4pm to 72% for those who presented between midnight and 8am.

Method of self-harm

	Overdose	Alcohol	Poisoning	Hanging	Drowning	Cutting	Other	Total
Men	3159	1921	135	704	254	1754	450	5661
	(55.8%)	(33.9%)	(2.4%)	(12.4%)	(4.5%)	(31%)	(7.9%)	(100%)
Women	4633	1871	134	368	183	1954	353	6927
	(66.9%)	(27%)	(1.9%)	(5.3%)	(2.6%)	(28.2%)	(5.1%)	(100%)
Total	7792	3792	269	1072	437	3708	803	12588
	(61.9%)	(30.1%)	(2.1%)	(8.5%)	(3.5%)	(29.5%)	(6.4%)	(100%)

Table 4: Methods of self-harm involved in presentations to hospital in 2018.

Approximately 62% of all self-harm presentations involved a drug overdose, which was more commonly used as a method of self-harm by women than by men. It was involved in 56% of male and 67% of female episodes. Alcohol was involved in 30% of all cases. Alcohol was significantly more often involved in male episodes of self-harm than female episodes (34% and 27%, respectively).

Cutting was the only other common method of self-harm, involved in 30% of all episodes. Cutting was more common in men (31%) than in women (28%). Presentations involving self-cutting increased by 17% in 2018. In 93% of all cases involving self-cutting, the treatment received was recorded. One quarter (25%) received steristrips or steribonds, 54% did not require any treatment, 19% required sutures while 2% were referred for plastic surgery. Men who cut themselves more often required intensive treatment. Respectively, 20% received sutures and 3% were referred for plastic surgery compared to 16% and 2% of women who cut themselves.

Attempted hanging was involved in 9% of all self-harm presentations (12% for men and 5% for women). At 1,072, the number of presentations involving attempted hanging was 24% higher than 2017 (+22% for men and +30% for women). Overall, the number of self-harm presentations involving hanging increased between 2007 and 2018 from 444 to 1,072. While rare as a method of self-harm, the number of presentations involving attempted drowning increased by 19% in 2018 (from 367 to 437) while presentations involving ingestion of poisonous substances or gases increased by 22% (from 227 to 269).

The greater involvement of drug overdose as a female method of self-harm is illustrated in Figure 6. Drug overdose also accounted for a higher proportion of self-harm presentations in the older age groups, in particular for women, whereas self-cutting was less common. Self-cutting was most common among young people – in 38% of presentations by boys and 36% of presentations by girls aged under 15 years.

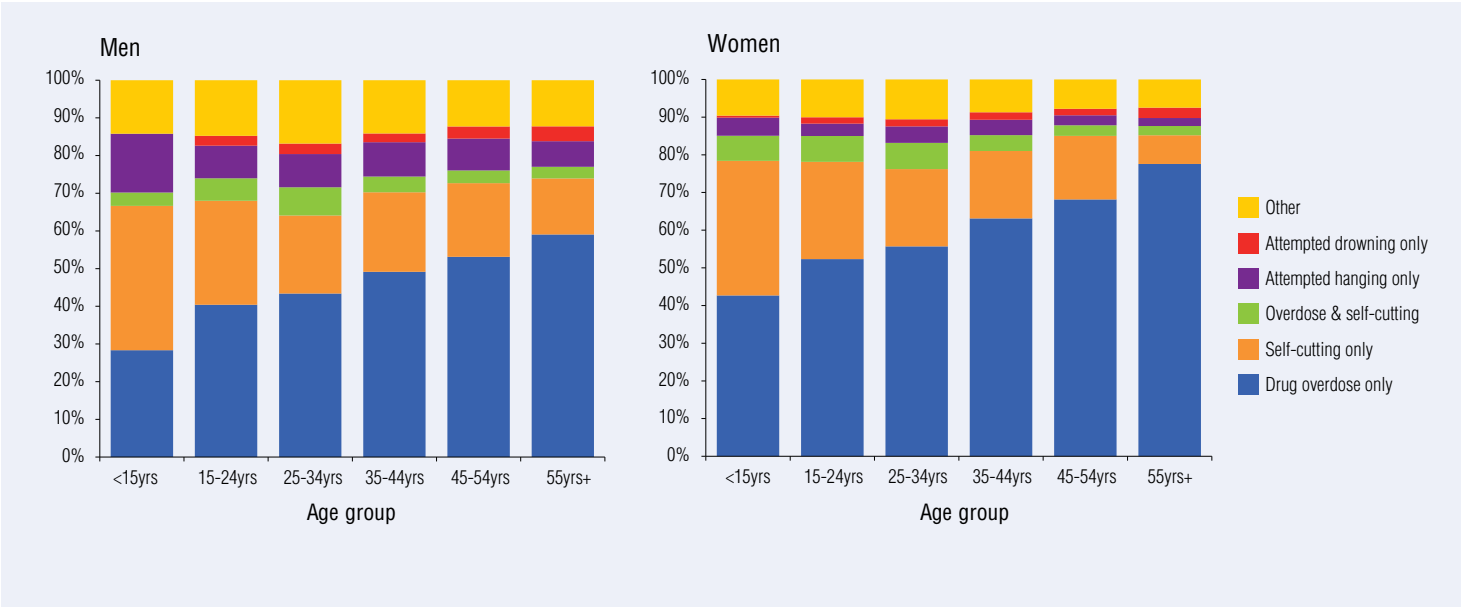


Figure 6: Method of self-harm used by gender and age group, 2018.

Drugs used in overdose

The total number of tablets taken was known in 69% of all cases of drug overdose. On average, 29 tablets were taken in the episodes of self-harm that involved drug overdose. Three-quarters of drug overdose acts involved less than 36 tablets, half involved less than 20 tablets and one quarter involved less than 12 tablets. On average, the number of tablets taken in overdose acts was higher in men than women (mean: 31 vs. 28). Figure 7 illustrates the pattern of the number of tablets taken in drug overdose episodes for both genders. Half (50%) of female episodes and 46% of male episodes of overdose involved 10-29 tablets.

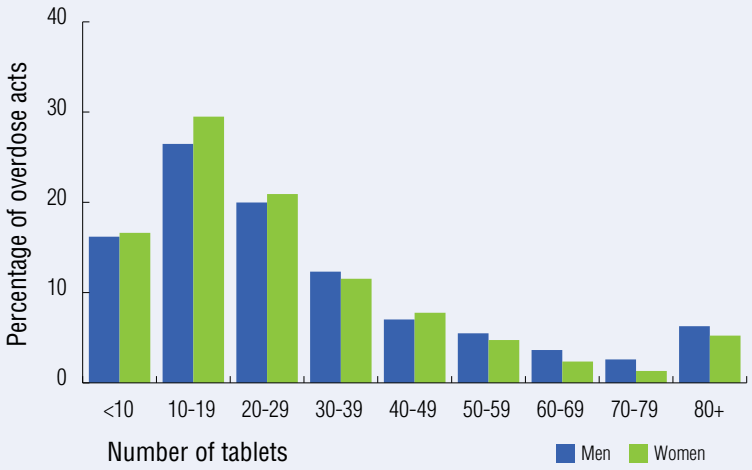
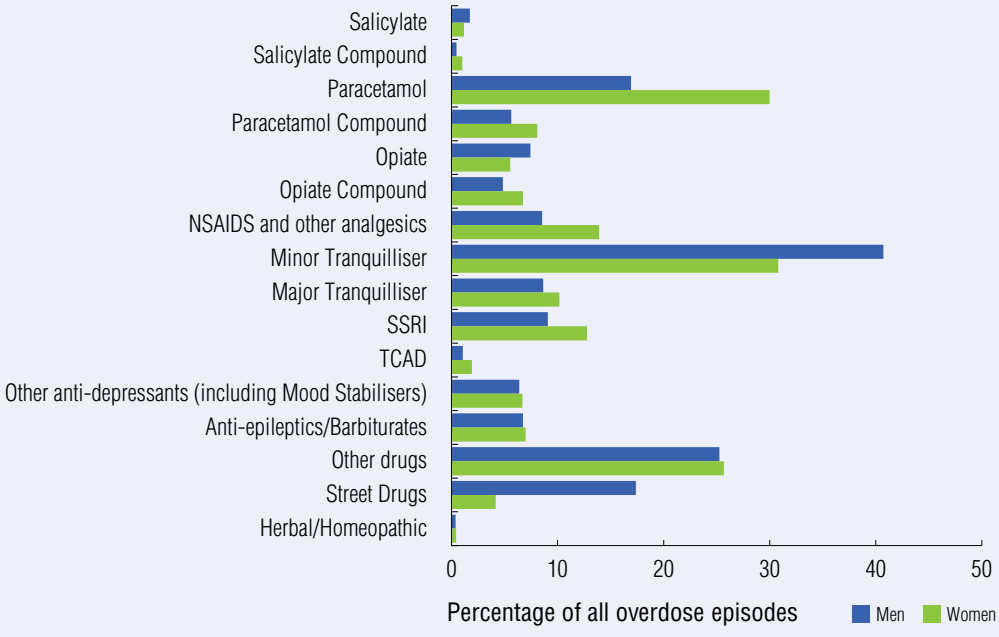


Figure 7: The pattern of the number of tablets taken in drug overdose, by gender.



Note: Some drugs (e.g. compounds containing paracetamol and an opiate) are counted in two categories.
Figure 8: The variation in the type of drugs used.

Figure 8 illustrates the frequency with which the most common types of drugs were used in overdose. Approximately one-third (35%) of all overdoses involved a minor tranquilliser and such a drug was used significantly more often by men than women (41% vs. 31%, respectively). A major tranquilliser was involved in 10% of overdoses. In total, 48% of all female overdose acts and 34% of all male overdose acts involved an analgesic drug. Paracetamol was the most common analgesic drug taken, involved in some form in 30% of drug overdose acts. Paracetamol-containing medication was used significantly more often by women (36%) than by men (22%). One in five acts (19%) of overdose acts involved an anti-depressant/ mood stabiliser. The group of anti-depressant drugs known as Selective Serotonin Reuptake Inhibitors (SSRIs) were present in 11% of overdose cases. Street drugs were involved in 17% of male and 4% of female overdose acts. 'Other classified drugs' were taken in more than one quarter (26%) of all overdoses which reflects the wide range of drugs taken deliberately in acts of drug overdose.

The number of self-harm presentations to hospital involving drug overdose in 2018 (7,792) was higher than the number recorded in 2017 (7,538). There was some fluctuation in the number of presentations involving each of the drug types described here. Most notably, there were increases in the number of self-harm presentations involving opiate compound medication (+31%), salicylate compound medication (+29%), minor tranquillisers (+8%) and major tranquillisers (+6%). Decreases in the number of self-harm presentations involving tricyclic antidepressants (-6%), other antidepressants (-7%) and other drugs (-7%) were also recorded.

Figure 9: Trends in rate of street drugs in intentional overdose by gender, 2007-2018.

In 2018, there was an increase in the number of self-harm presentations to hospital involving street drugs by 27% (from 583 to 742). Since 2007, the rate per 100,000 of intentional drug overdose involving street drugs has increased by 54% (from 9.9 to 15.3 per 100,000). The male rate increased by 57% (from 14.6 to 22.8 per 100,000) while the female rate has increased by 50% (from 5.3 to 7.9 per 100,000). Cocaine and cannabis were the most common street drugs recorded by the Registry in 2018, present in 5% and 3% of overdose acts, respectively. Cocaine was most common among men, involved in 15% of overdose acts by 25-34 year-olds. Cannabis was most common among men aged 15-24 year-olds – present in 8% of overdose acts.

Recommended next care

Overall, in 13% of 2018 cases, the patient left the emergency department before a next care recommendation could be made. Following their treatment in the emergency department, inpatient admission was the next stage of care recommended for 31% of cases, irrespective of whether general or psychiatric admission was intended and whether the patient refused or not. Of all self-harm cases, 24% resulted in admission to a ward of the treating hospital whereas 7% were admitted for psychiatric inpatient treatment from the emergency department. It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, direct psychiatric admission figures provided here may be underestimated. In addition, some of the patients admitted to a general hospital ward will subsequently be admitted as psychiatric inpatients. In fewer than 1% of cases, the patient refused to allow him/herself to be admitted whether for general or psychiatric care. Most commonly, 56% of cases were discharged following treatment in the emergency department.

Next care recommendations in 2018 were broadly similar for men and women. Men more often left the emergency department before a recommendation was made (16% vs. 11%). Women were more often admitted to a general ward of the treating hospital than men (28% vs. 20%).

	Overdose (N=7792)	Alcohol (N=3792)	Poisoning (N=269)	Hanging (N=1072)	Drowning (N=437)	Cutting (N=3708)	Other (N=848)	All (N=12588)
General admission	31.8%	23.6%	28.3%	13.9%	10.8%	12.4%	12.4%	24.3%
Psychiatric admission	5.0%	4.3%	9.3%	15.8%	10.1%	5.9%	10.7%	6.5%
Patient would not allow admission	0.5%	0.4%	0.7%	0.5%	0.5%	0.3%	0.9%	0.5%
Left before recommendation	12.6%	17.2%	9.3%	8.5%	13.0%	14.8%	11.6%	12.8%
Discharged from emergency department	50.0%	54.4%	52.4%	61.4%	65.7%	66.5%	64.4%	55.8%

Table 5: Recommended next care in 2018 by methods of self-harm.

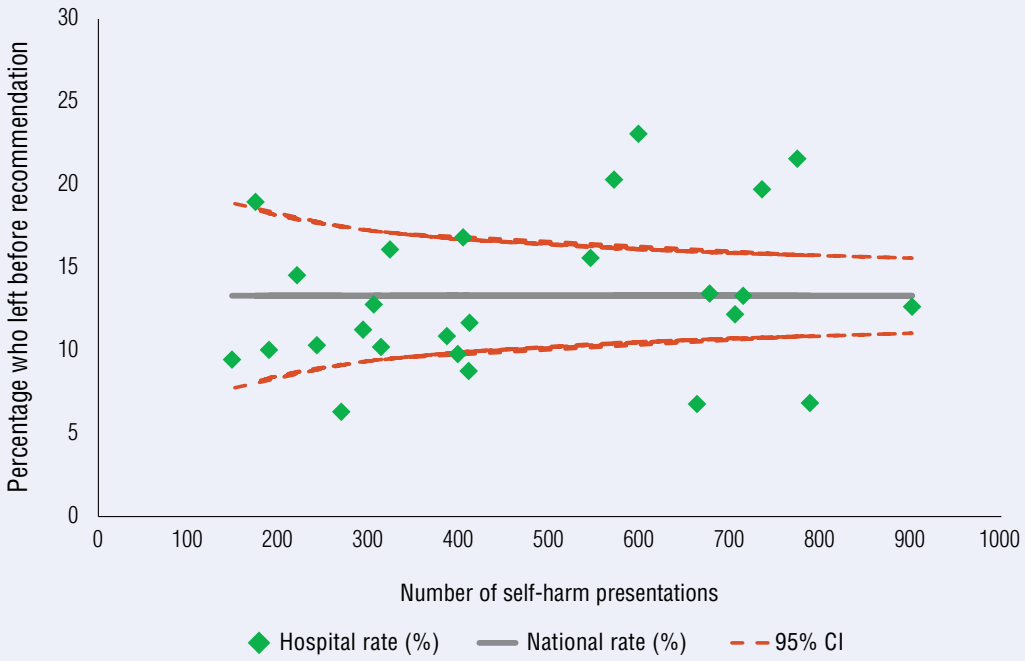
Recommended next care varied according to the method of self-harm (Table 5). General inpatient care was most common following cases of drug overdose and self-poisoning, less common after attempted hanging and least common after self-cutting and attempted drowning. The finding in relation to self-cutting may be a reflection of the superficial nature of the injuries sustained in some cases. Of those cases where the patient used cutting as a method of self-harm, 67% were discharged after receiving treatment in the emergency 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 emergency department.

Next care varied significantly by HSE hospital group (Table 6). The proportion of self-harm patients who left before a recommendation was made varied from 1% in the Children's hospital group, to 19% in the RCSI hospital group. Across the hospital groups, inpatient care (irrespective of type and whether patient refused) was recommended for 16% of the patients treated in the University of Limerick, 28% in the Ireland East, 31% in the Dublin Midlands, 32% in the South/ South West and RCSI, 38% in the Saolta University and 63% in the Children's hospital groups. As a corollary to this, the proportion of cases discharged following emergency treatment ranged from a low of 36% in the Children's group to a high of 72% in the University of Limerick group. The balance of general and psychiatric admissions directly after treatment in the emergency department differed significantly by hospital group. Direct general admissions were more common than direct psychiatric admissions in all hospital groups.

	Ireland East Hospital Group	Dublin Midlands Hospital Group	RCSI Hospital Group	South/ South West Hospital Group	University of Limerick Hospital Group	Saolta University Health Care Group	Children's Hospital Group	Republic of Ireland
	(n=2741)	(n=2305)	(n=1934)	(n=2532)	(n=927)	(n=1826)	(n=323)	(n=12588)
General admission	24.7%	24.1%	25.2%	24.5%	9.7%	23.5%	62.8%	24.3%
Psychiatric admission	3%	5.9%	6%	7.1%	5.9%	13.7%	0%	6.5%
Patient would not allow admission	0.2%	0.8%	0.4%	0.3%	0%	1.2%	0.3%	0.5%
Left before recommendation	12.9%	14.1%	18.8%	10.9%	12.4%	9.7%	0.9%	12.8%
Discharged from emergency department	59.2%	55%	49.6%	57.2%	72%	51.9%	35.9%	55.8%

Note: It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, the figures for direct psychiatric admission detailed in this table may be underestimates.
Table 6: Recommended next care in 2018 by HSE hospital group.

In 2018, 13% of patients left the emergency department before a recommendation could be made. The funnel plot in Figure 10 illustrates the proportion of presentations resulting in the patient leaving without being seen for each hospital. For most hospitals, the proportion was similar to the national rate. However, there were eight hospitals falling outside of the dashed lines, which indicates that their rate is different to the national rate. There is evidence of an association with the location of a hospital, with the proportion of patients leaving before recommendation higher in inner city hospital emergency departments.



Note: Due to small numbers, data for Local Injury Units and Children's Hospitals have been excluded.
Figure 10: Funnel plot of the proportion leaving before recommendation, according to hospital, 2018.

Appendix 2 details the recommended next care for self-harm patients according to hospital. For each hospital group, there were significant differences between the hospitals in their pattern of next care recommendations.

Self-harm cases discharged from emergency department

Information on follow-on care or referrals offered was recorded for patients discharged from the emergency department following treatment (n=7,030).

- In 33% of episodes, an out-patient appointment was recommended as a next care step for the patient.
- Recommendations to attend their general practitioner for a follow-up appointment were given to 18% of discharged patients.
- Of those not admitted to the presenting hospital, 11% were transferred to another hospital for treatment (8% for psychiatric treatment and 3% for medical treatment).
- Other services (e.g. psychological services, community-based mental health teams and addiction services) were recommended in 17% of episodes.
- Approximately one in five (21%) of patients discharged from the emergency department were discharged home without a referral.

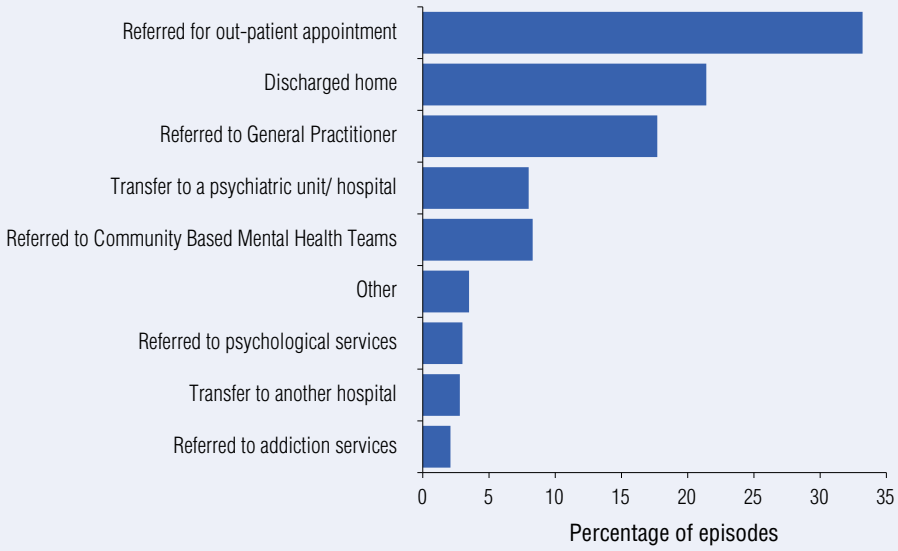


Figure 11: Referral of self-harm patients in 2018 following discharge from the emergency department.

Referrals offered to self-harm patients varied according to HSE hospital group, with 76% of patients in the Children's hospital group referred for an out-patient appointment compared with 17% in the Saolta University groups. Referrals to community-based mental health teams were highest in the Saolta University group (33%), with referrals to general practitioners highest in the Dublin-Midlands group (25%).

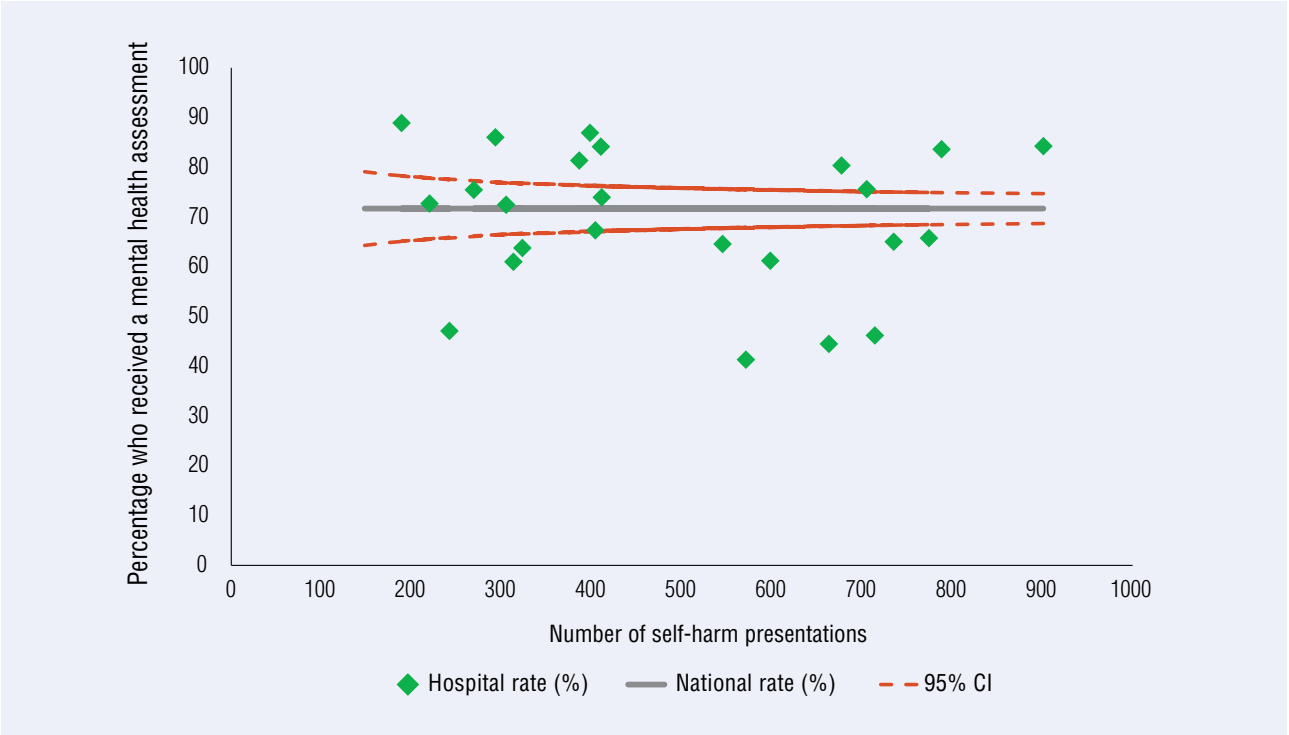
Mental health assessment

Whether the patient had a mental health assessment in the presenting hospital was known in 94% of all cases. Of those known, 72% (n=8,490) of patients were assessed by a member of the mental health team (74% for women, 69% for men). Assessment was most common following attempted hanging (80%) and attempted drowning (77%). Those with alcohol on board or with self-cutting were less likely to receive an assessment (69% and 70%, respectively). A minority (4%) of patients refused a mental health assessment at the time of presentation (n=472).

More than three-quarters (81%) of those not admitted to the presenting hospital received a mental health assessment prior to discharge. However only 18% of patients who left before recommendation received an assessment.

Mental health assessment provision varied according to whether the self-harm attendance was a repeat presentation or not. In 2018, almost three-quarters (73%) of first presentations of self-harm were assessed, compared with 58% of those with five or more presentations.

The funnel plot in Figure 12 illustrates the proportion of attendances receiving a mental health assessment for each hospital. The majority of hospitals (n=18) fall outside of the dashed lines, indicating that their rate is different to that nationally.



Note: Due to small numbers, data for Local Injury Units and Children's Hospitals have been excluded.
Figure 12: Funnel plot of the proportion receiving a mental health assessment, according to hospital, 2018

Repetition of self-harm

9,785 individuals presented to hospital for 12,588 self-harm episodes in 2018. This implies that more than one in five (2,803, 22.3%) of the presentations in 2018 were due to repeat acts, which is similar to the years 2003-2009 and 2013-2017 (range: 20.5-23.1%). Of the 9,785 self-harm patients who presented to hospital, 1,427 (14.6%) made at least one repeat presentation during the calendar year. This proportion is within the range reported for the years 2003-2017 (13.3-16.4%). At least five self-harm presentations were made by 153 individuals. They accounted for just 1.6% of all self-harm patients in the year but their presentations represented 9.8% (n=1,239) of all self-harm presentations recorded.

The rate of repetition varied according to the method of self-harm involved in the self-harm act (Table 7). Of the commonly used methods of self-harm, self-cutting was associated with an increased level of repetition. Almost one in five (18.3%) who used cutting as a method of self-harm in their index act made at least one subsequent self-harm presentation in the calendar year.

	Overdose	Alcohol	Poisoning	Hanging	Drowning	Cutting	Other	All
Number of individuals who presented	6187	2994	212	865	359	2638	613	9785
Number who repeated	842	423	31	133	48	482	109	1427
Percentage who repeated	13.6%	14.1%	14.6%	15.4%	13.4%	18.3%	17.8%	14.6%

Table 7: Repeat presentation after index self-harm presentation in 2018 by methods of self-harm.

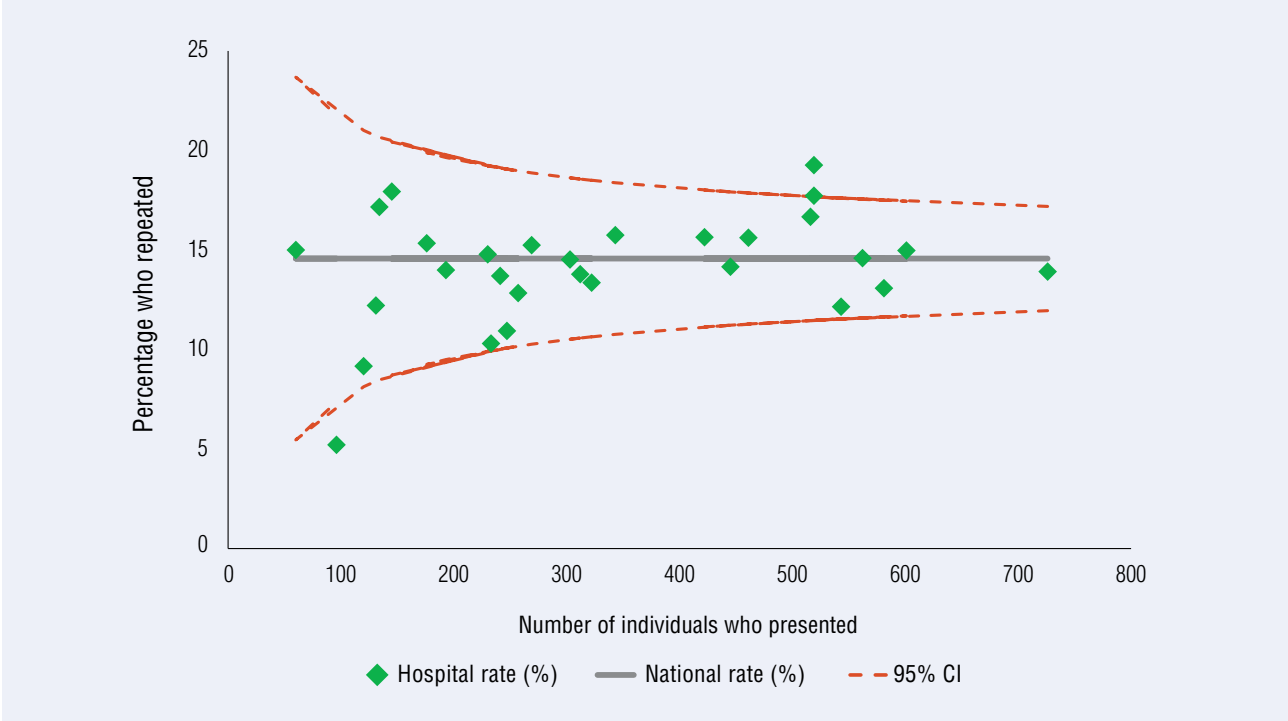
The rate of repetition was broadly similar in men and women (15.0% vs. 14.2%). Repetition varied significantly by age. Approximately 14% of self-harm patients aged less than 20 years re-presented with self-harm. The proportion who repeated was highest, at 16.5%, for 25-34 year-olds.

There was little variation in repetition rates when examined by HSE hospital group (Table 8). The lowest rate was among self-harm patients who presented to the Children's and South/ South West hospital groups (10.3% and 13.9% respectively), with repetition rates ranging from 14.5%-17.1% across the other groups.

		Ireland East Hospital Group	Dublin Midlands Hospital Group	RCSI Hospital Group	South/ South West Hospital Group	University of Limerick Hospital Group	Saolta University Health Care Group	Children's Hospital Group	Republic of Ireland
Number of individuals who presented	Men	949	850	717	994	326	625	94	4448
	Women	1175	945	833	1056	427	842	196	5337
	TOTAL	2124	1795	1550	2050	753	1467	290	9785
Number who repeated	Men	153	167	116	136	53	85	6	669
	Women	200	140	131	149	59	128	24	758
	TOTAL	353	307	247	285	112	213	30	1427
Percentage who repeated	Men	16.1%	19.6%	16.2%	13.7%	16.3%	13.6%	6.4%	15%
	Women	17%	14.8%	15.7%	14.1%	13.8%	15.2%	12.2%	14.2%
	TOTAL	16.6%	17.1%	15.9%	13.9%	14.9%	14.5%	10.3%	14.6%

Table 8: Repetition in 2018 by gender and HSE hospital group.

The funnel plot in Figure 13 illustrates the rate of repetition for each hospital. The average rate of repetition nationally was 14.6%. For the majority of hospitals, the rate of repetition was similar to the national rate, indicating little variation in the rate of repetition across hospitals.



Note: Due to small numbers, data for Local Injury Units have been excluded.
Figure 13: Funnel plot of the rate of repetition according to hospital, 2018

Appendix 3 details the repetition rate by hospital for male, female and all patients who presented to hospital following self-harm. Caution should be taken in interpreting the repetition rates associated with smaller hospitals as the calculations may be based on a small number of patients.

Risk of repetition was greatest in the days and weeks following a self-harm presentation. A total of 9,458 self-harm presentations were made to hospital emergency departments in the first nine months of 2018. For 19.3% of these (n=1,823) there was a repeat self-harm presentation made within three months (91 days). This proportion varied significantly by HSE hospital group: Children's (7.8%), University of Limerick (15.2%), South/ South West (16.8%), Saolta University (18.3%), Dublin Midlands (20.8%), RCSI (21.3%), and Ireland East (22.2%).

The proportion of self-harm presentations followed by a repeat presentation within three months was higher for women (20.0%) than men (18.4%) and varied according to age. The proportion was lowest among those aged under 15 years (10.0%) and over 55 years (13.2%), compared with 18.3% among 15-24 year-olds and 21.6% among 25-54 year-olds. The proportion of self-harm presentations followed by a repeat presentation within three months also varied according to method of self-harm (12.4% following an attempted hanging, 14.4% following an attempted drowning, 16.8% following a drug overdose, 24.9% following an act of self-cutting only and 28.5% following an act involving drug overdose and self-cutting only).

Variation in the proportion of self-harm presentations followed by a repeat presentation within three months was also observed based on recommended next care following an index act. The proportion was lowest for those who were admitted to a general ward (15.3%), compared to 18.4% of those who were discharged from the emergency department, 22.7% who were admitted to a psychiatric ward and 28.7% who left before a recommendation.

However, the factor having by far the strongest influence on likelihood of repetition was the number of self-harm presentations made to hospital. Just one in ten (11.6%) first presentations in January-September 2018 were followed by a repeat presentation in the next three months. This proportion was 33.3% following second presentations, 51.4% following third presentations, 62.3% following fourth presentations and 82.7% following fifth or subsequent presentations.

SECTION II:
Incidence Rates

For the period from 1 January to 31 December 2018, the Registry recorded 12,588 self-harm presentations to hospital that were made by 9,785 individuals. Based on these data, the Irish person-based crude and age-standardised rate of self-harm in 2018 was 201 (95% CI: 197 to 206) and 210 (95% CI: 206 to 215) per 100,000, respectively. Thus, there was a 6% increase in the age-standardised rate in 2018, which accounts for the changing age distribution of the population, from 2017 (199 per 100,000).

	MEN		WOMEN		ALL	
YEAR	Rate	% difference	Rate	% difference	Rate	% difference
2002	167	-	237	-	202	-
2003	177	+7%	241	+2%	209	+4%
2004	170	-4%	233	-4%	201	-4%
2005	167	-2%	229	-1%	198	-2%
2006	160	-4%	210	-9%	184	-7%
2007	162	+2%	215	+3%	188	+2%
2008	180	+11%	223	+4%	200	+6%
2009	197	+10%	222	-<1%	209	+5%
2010	211	+7%	236	+6%	223	+7%
2011	205	-3%	226	-4%	215	-4%
2012	195	-5%	228	+1%	211	-2%
2013	182	-7%	217	-5%	199	-6%
2014	185	+2%	216	-<1%	200	+1%
2015	186	+1%	222	+3%	204	+2%
2016	184	-1%	228	+3%	205	+<1%
2017[1]	181	-2%	219	-4%	199	-3%
2018	193	+7%	229	+5%	210	+6%

Table 9: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2002-2018 (extrapolated data used for 2002-2005 to adjust for non-participating hospitals).

The rate in 2018 was 6% lower than the peak rate of 223 per 100,000 reported for 2010. However, the rate in 2018 was still 12% higher than in 2007, the year before the economic recession.

[1]Figures for 2017 have been updated to include an additional 20 cases which were late registered.

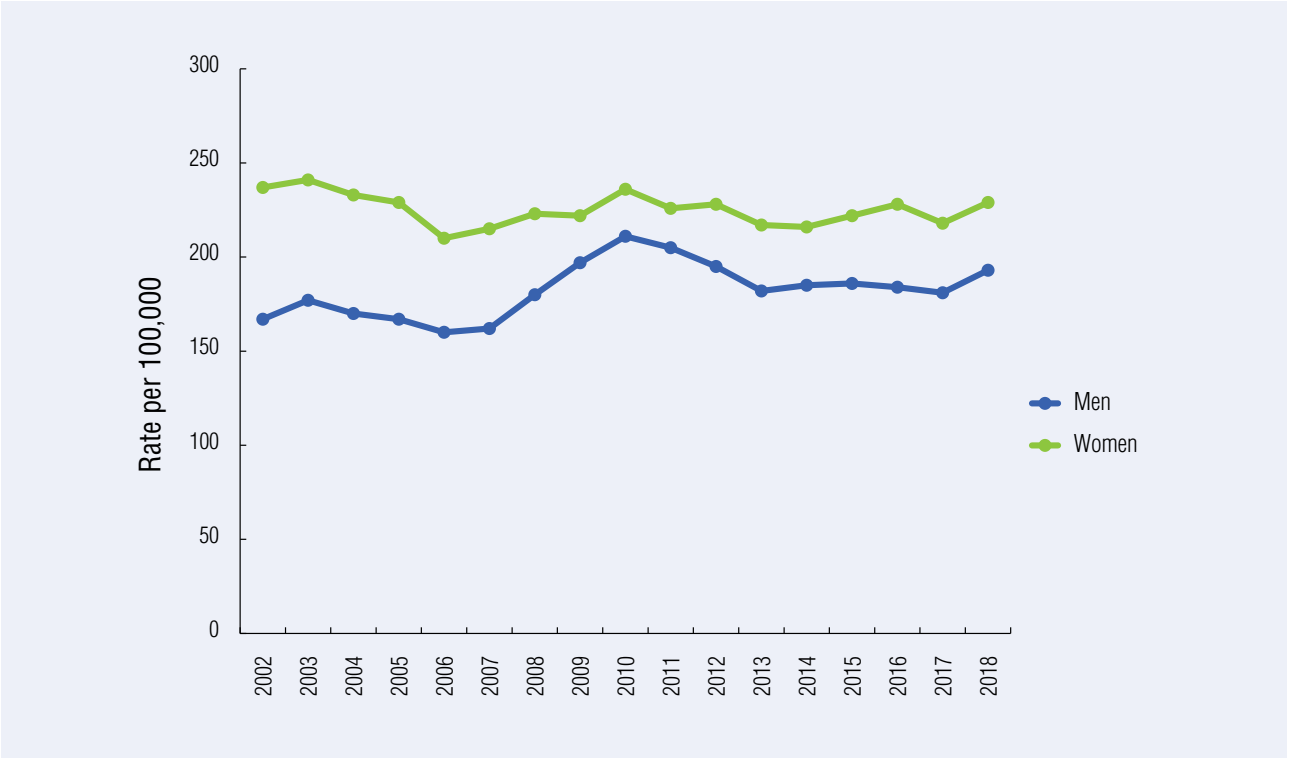


Figure 14: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland by gender, 2002-2018.

Population figures and the number and rate of persons who presented to hospital following self-harm in 2018 are given in Appendix 4.

Variation by gender and age

The person-based age-standardised rate of self-harm for men and women in 2018 was 193 (95% CI: 187-198) and 229 (95% CI: 223-235) per 100,000, respectively. Thus, there was a 7% increase in the male rate of self-harm from 2017, while the female rate increased by 5%. Taking recent years into account, the male self-harm rate in 2018 was 19% higher than in 2007 whereas the female rate was 7% higher.

The female rate of self-harm in 2018 was 19% higher than the male rate. This gender difference has been decreasing in recent years. The female rate was 37% higher in 2004-2005, 32-33% higher in 2006-2007, and 10-24% higher in 2008-2017.

There was a striking pattern in the incidence of self-harm when examined by age. The rate was highest among the young. At 766 per 100,000, the peak rate for women was among 15-19 year-olds. This rate implies that one in every 131 girls in this age group presented to hospital in 2018 as a consequence of self-harm. The peak rate for men was 543 per 100,000 among 20-24 year-olds or one in every 184 men. The incidence of 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 approximately 225 per 100,000, across the 30 to 54 year age range.

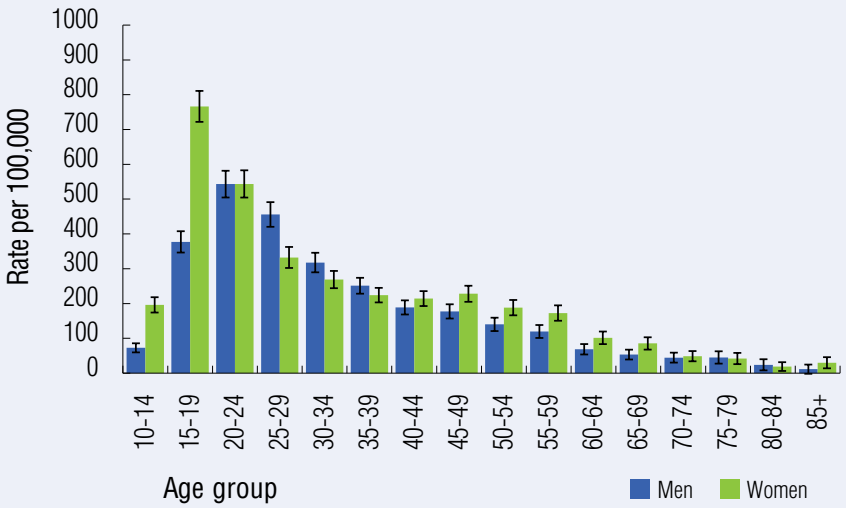


Figure 15: Person-based rate of self-harm in the Republic of Ireland in 2018 by age and gender.

Gender differences in the incidence of self-harm varied with age. The female rate was 1.7 times higher than the male rate in 10-14 year-olds (196 vs. 73 per 100,000) and twice as high in 15-19 year-olds (766 vs. 377 per 100,000), respectively. The female rate of self-harm was again higher than the male rate across the 45-59-year age range. However, the male rate was 37% higher than the female rate in 25-29 year-olds (456 vs. 332 per 100,000) and 18% higher in 30-34 year-olds (318 vs. 269 per 100,000). Since 2009, the Registry has recorded a significantly higher rate of self-harm in men aged 25-29 years compared to women of that age.

In 2018, the male rate of self-harm among 10-24 year-olds increased by 8% (from 296 to 320 per 100,000). The rate of self-harm among women aged 65-69 years increased by 47% (from 58 to 85 per 100,000).

Self-harm was rare in 10-14 year-olds. However, the incidence of self-harm increased rapidly over a short age range. This is illustrated in greater detail in Figure 16. In 13-21 year-olds, the female rate of self-harm was significantly higher than the male rate. The increases in the female rate in early teenage years were particularly striking. The peak rates among younger people were in 18 year-old women and 21 year-old men, with rates of 826 and 606 per 100,000, respectively.

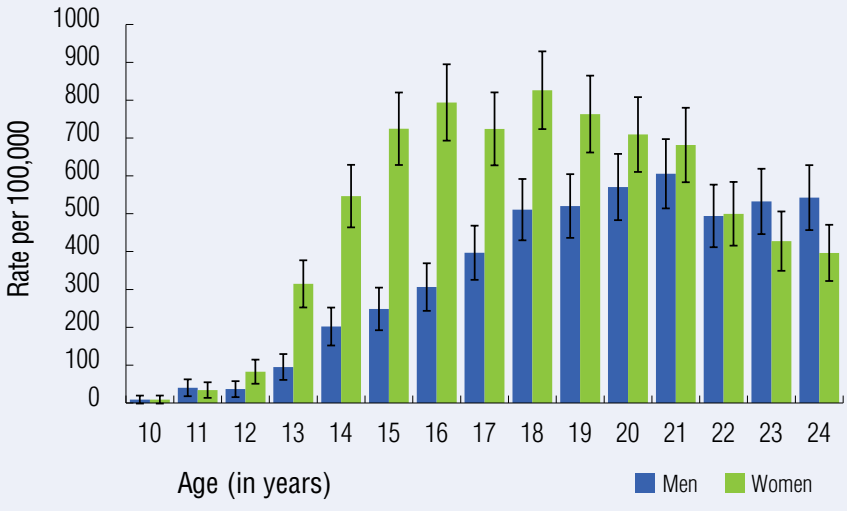


Figure 16: Person-based rate of self-harm in the Republic of Ireland in 2018 by single year of age for 10-24 year-olds.

Self-harm by region

Rates by city and county

There was widespread variation in the male and female self-harm rate when examined by city/county of residence. Thematic maps (1 and 2) are provided to illustrate the variation in the male and female incidence of hospital-treated self-harm by city/ county of residence. The male rate varied from 115 per 100,000 for Leitrim to 410 per 100,000 for Cork City. The lowest female rates were recorded for Monaghan (150 per 100,000) with the highest rates recorded for Limerick City residents at 459 per 100,000. Relative to the national rate, a high rate of self-harm was recorded for male and female city residents and for men living in Tipperary South, Carlow, Kerry and Louth and for women living in Tipperary South, Carlow, Kerry and Mayo. In 2018 high rates for both men and women were seen in Cork City, where the male rate was 1.1 times higher than the national average and the female rate was 38% higher. In Limerick City the male and female rates were approximately twice the national average.

At a national level, the female self-harm rate exceeded the male rate by 19%. The magnitude of this gender difference varied by city/county. The female rate far exceeded the male rate in Leitrim (+112%), Westmeath (+87%), Limerick County (+69%) and Galway City (+53%). The opposite pattern of a significantly lower female rate was observed in Cork City (-23%), Louth (-5%) and Kilkenny (-5%).

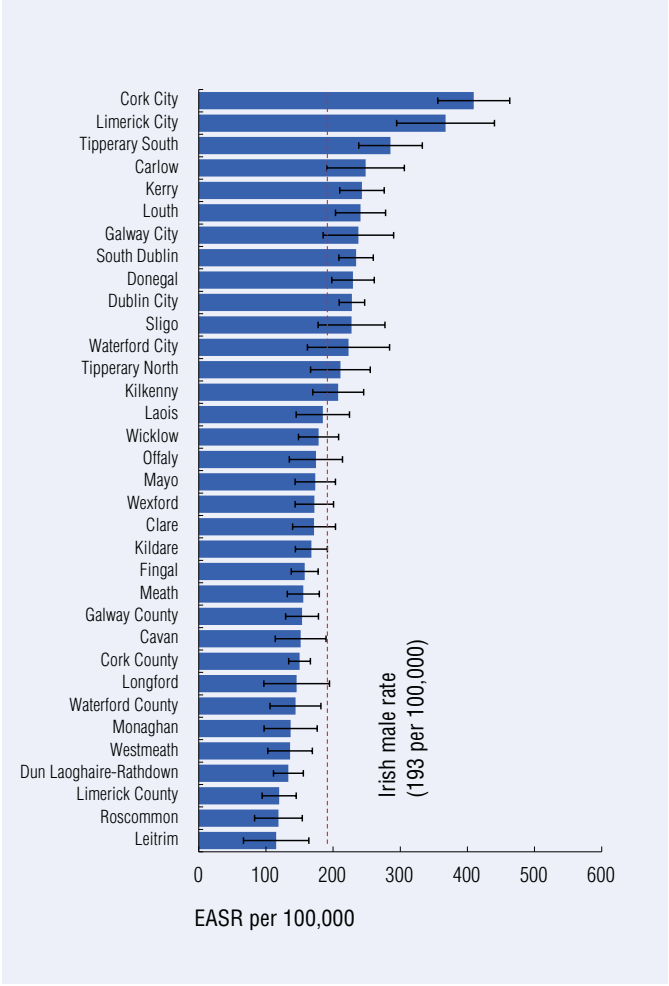


Figure 17a: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2018 by city/county of residence for men.

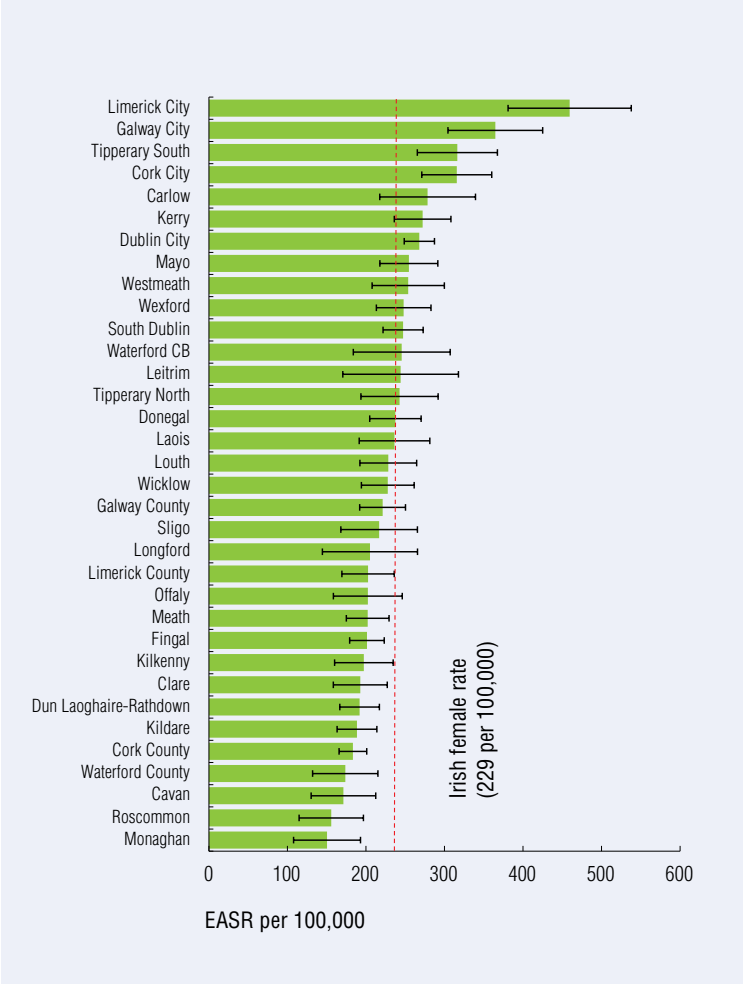
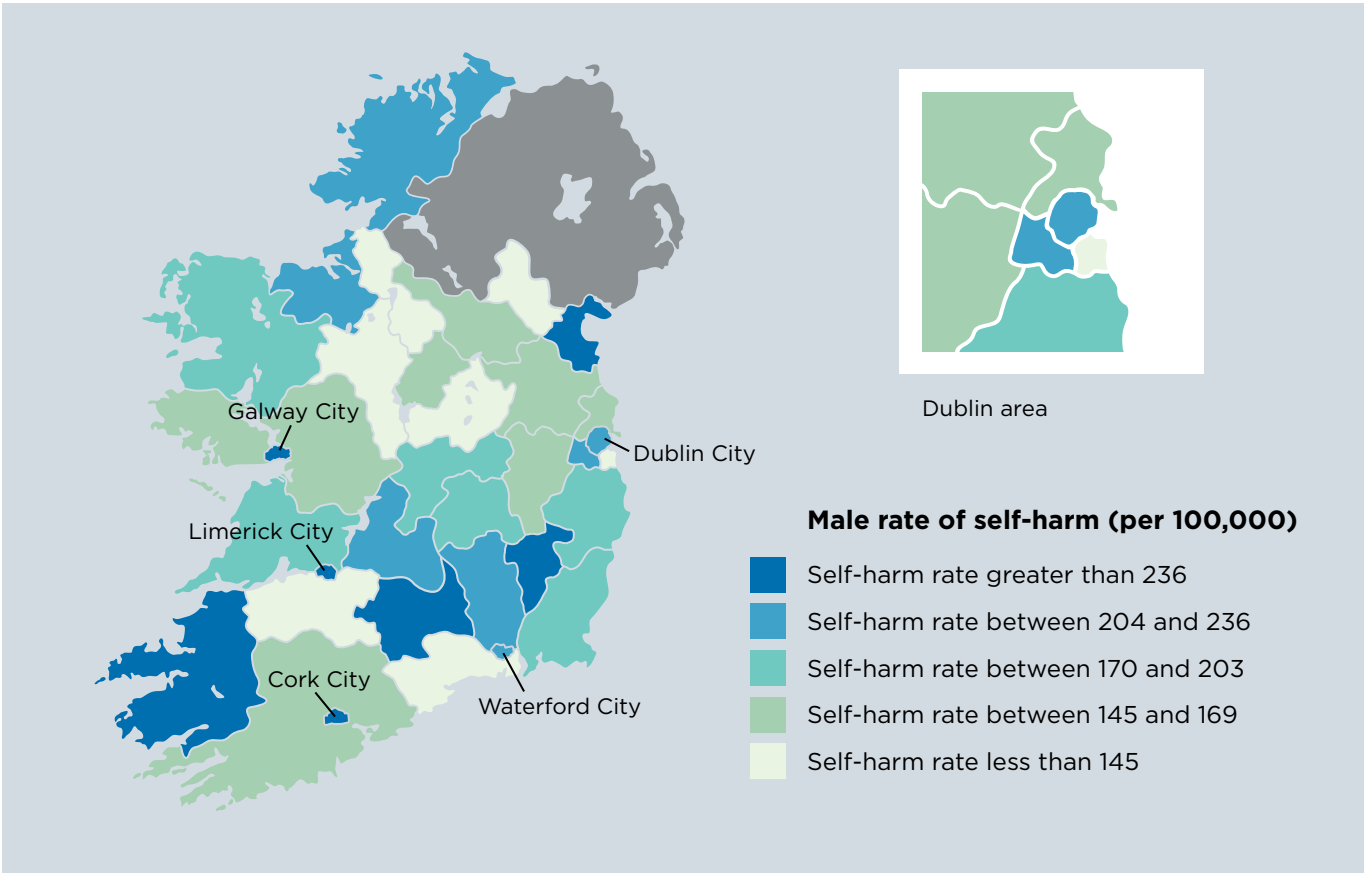
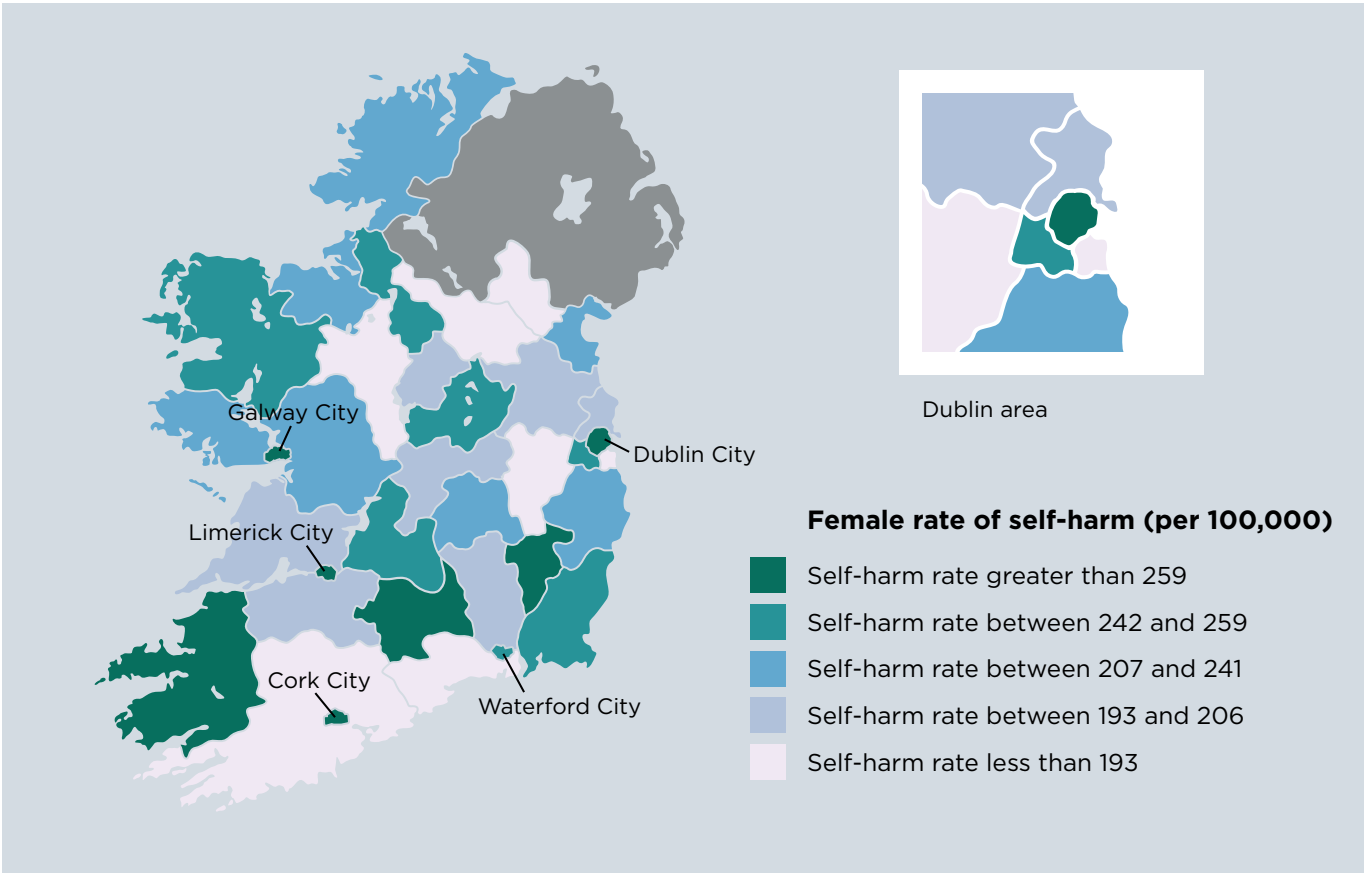


Figure 17b: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2018 by city/county of residence for women.



Map 1: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2018 by city/ county of residence for men.



Map 2: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2018 by city/ county of residence for women.

Compared to 2017, significant increases in the female rate of self-harm were observed in Kerry (+57%) and Mayo (+49%) with a significant decrease observed in Roscommon (-39%). For men, significant increases were observed in Tipperary North (+46%), Fingal (+38%) and South Dublin (+23%).

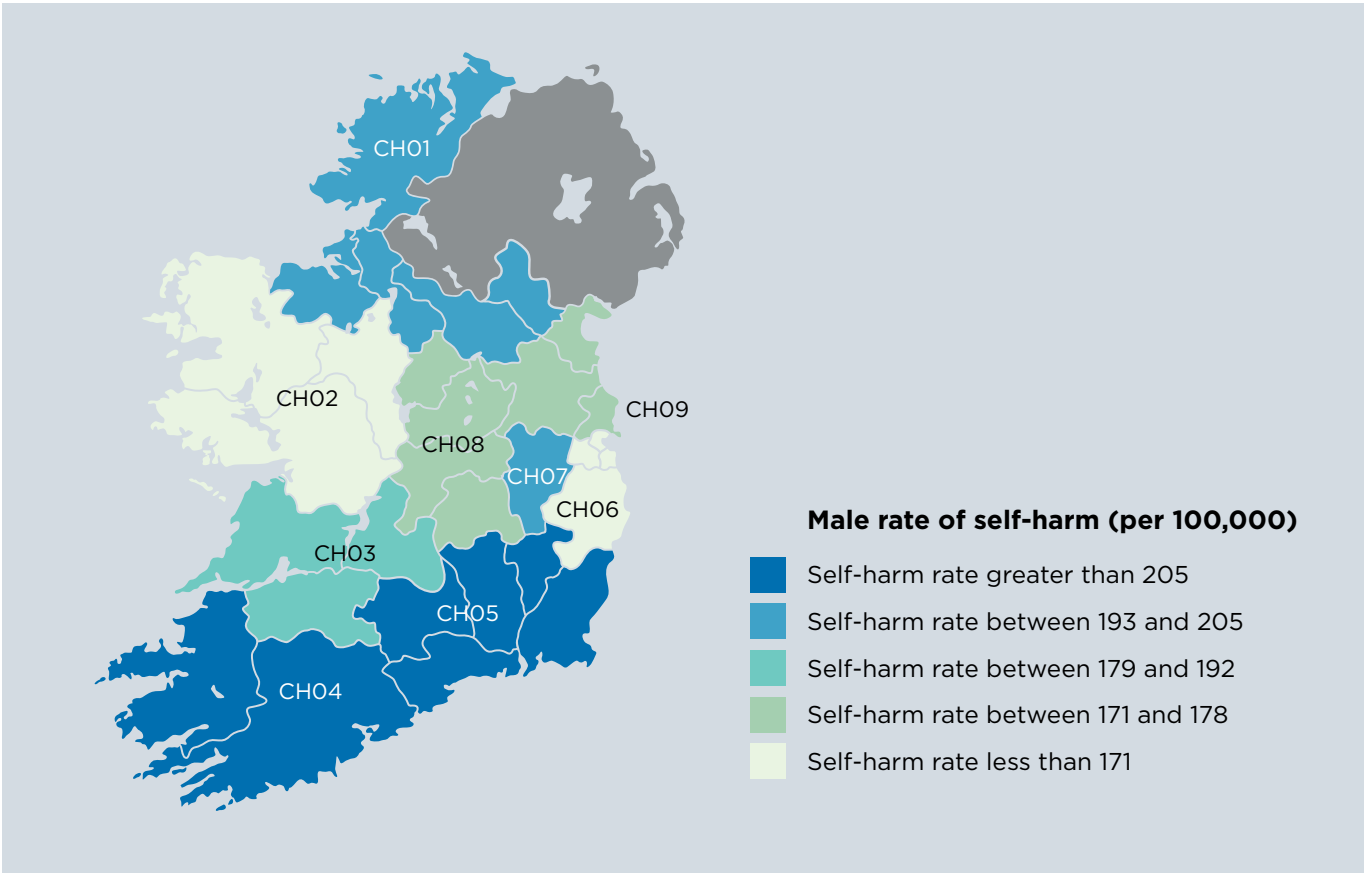
Rates by HSE Community Healthcare Organisation (CHO)

In 2018, the incidence of self-harm was highest, at 230 per 100,000 in CHO Area 5 (South Tipperary, Carlow/ Kilkenny, Waterford, Wexford) and lowest in CHO Area 6 (Wicklow, Dun Laoghaire and Dublin South East) at 167 per 100,000. The male rate of self-harm varied from 139 per 100,000 in CHO Area 6 to 216 per 100,000 in CHO Area 4 (Cork/ Kerry). The female rate of self-harm varied from 196 per 100,000 in CHO Area 6 to 250 per 100,000 in CHO Area 5.

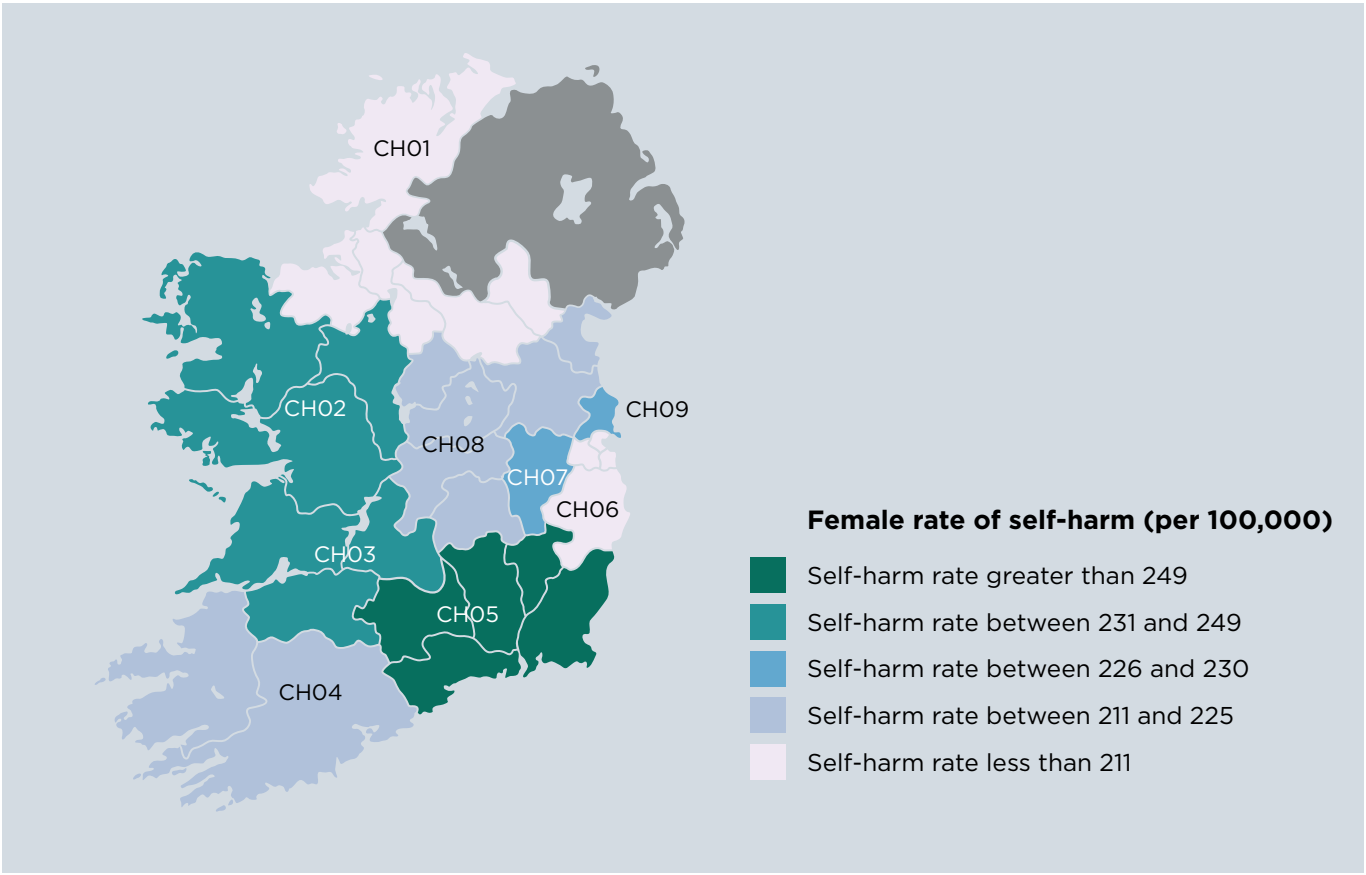
	Men				Women				All			
	Population	Persons	Rate	95% CI	Population	Persons	Rate	95% CI	Population	Persons	Rate	95% CI
CHO Area 1	196647	332	195	(+/-19)	197686	380	210	(+/-20)	394333	712	201	(+/-14)
CHO Area 2	225087	331	162	(+/-16)	228022	507	241	(+/-20)	453109	838	200	(+/-13)
CHO Area 3	191641	319	185	(+/-19)	193357	436	241	(+/-22)	384998	755	209	(+/-14)
CHO Area 4	341730	673	216	(+/-15)	348845	720	221	(+/-15)	690575	1393	214	(+/-11)
CHO Area 5	253523	482	213	(+/-17)	256810	587	250	(+/-19)	510333	1069	230	(+/-13)
CHO Area 6	187477	253	139	(+/-17)	200684	371	196	(+/-19)	388161	624	167	(+/-13)
CHO Area 7	346715	686	202	(+/-15)	356007	799	229	(+/-16)	702722	1485	211	(+/-11)
CHO Area 8	306727	484	178	(+/-14)	309502	646	225	(+/-16)	616229	1130	197	(+/-11)
CHO Area 9	304881	569	177	(+/-16)	316524	706	230	(+/-17)	621405	1275	205	(+/-11)

Table 10: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2018 by HSE Community Healthcare Organisation (CHO) area of residence and gender

*Population derived by the National Census 2016
**Person-based European age-standardised rate per 100,000 population



Map 3: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2018 by HSE Community Healthcare Organisation (CHO) for men.



Map 4: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2018 by HSE Community Healthcare Organisation (CHO) for women.

Rates by HSE Local Health Office (LHO)

For 2018, Table 11 details the population (derived by the National Census 2016), number of men and women who presented to hospital as a result of self-harm and the incidence rate (age-adjusted to the European standard population) for each LHO area. There was more than a two-fold difference in the rate of self-harm when examined by LHO area. The rate for men ranged from 104 per 100,000 in Dublin South East to 296 per 100,000 in South Tipperary and for women ranged from 147 per 100,000 in West Cork to 318 per 100,000 in South Tipperary.

Table 11: Self-harm in 2018 by HSE Local Health Office (LHO) area of residence and gender.

HSE Region and LHO		MEN				WOMEN			
			SELF-HARM				SELF-HARM		
		Population*	Persons	Rate**	Rank	Population*	Persons	Rate**	Rank
DUBLIN MID LEINSTER	Dublin South City	71533	112	145	27	73410	143	198	24
	Dublin South East	62054	66	104	32	66642	99	159	30
	Dublin South West	78334	208	269	2	82564	233	295	2
	Dublin West	76727	174	227	8	78616	195	255	9
	Kildare/West Wicklow	120121	192	168	17	121417	228	195	26
	Laois/Offaly	81649	125	165	19	81009	163	217	20
	Longford/Westmeath	64669	77	129	30	64974	149	247	10
	Dun Laoghaire	64842	85	137	29	71232	133	202	23
	Wicklow	60581	102	187	13	62810	139	239	13
DUBLIN NORTH EAST	Cavan/Monaghan	68535	92	152	26	67859	105	168	28
	Dublin North	126283	223	187	12	132869	267	218	19
	Dublin North Central	72256	126	161	23	73715	179	239	14
	Dublin North West	106342	220	194	10	109940	260	241	11
	Louth	63633	140	234	5	65251	145	233	16
	Meath	96776	142	163	21	98268	189	211	21
SOUTH	Carlow/Kilkenny	67879	143	233	6	68204	149	237	15
	Cork North	46260	65	153	25	46466	67	165	29
	Cork North Lee	95758	244	265	3	96348	237	262	5
	Cork South Lee	98048	184	185	14	102936	200	196	25
	Cork West	28609	34	143	28	28443	33	147	32
	Kerry	73055	146	241	4	74652	183	274	4
	Tipperary South	46979	122	296	1	46932	136	318	1
	Waterford	64943	101	168	18	65674	121	209	22
	Wexford	73722	116	179	15	76000	181	255	8
WEST	Clare	58785	83	158	24	60032	106	192	27
	Donegal	79022	157	232	7	80170	174	240	12
	Galway	127663	202	163	20	130395	315	256	6
	Limerick	77864	153	204	9	78447	211	288	3
	Mayo	65047	98	178	16	65460	148	256	7
	Tipperary North/East Limerick	54992	83	163	22	54878	119	224	17
	Roscommon	32377	31	109	31	32167	44	157	31
	Sligo/Leitrim/West Cavan	49090	82	191	11	49657	101	221	18

*Population derived by the National Census 2016

**Person-based European age-standardised rate per 100,000 population

Appendices

APPENDIX I:

APPENDIX 1: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE REPUBLIC OF IRELAND BY HOSPITAL GROUP, 2018

HOSPITAL GROUP	IRELAND EAST		DUBLIN MIDLANDS		RCSI		SOUTH/ SOUTH WEST		UNIVERSITY OF LIMERICK		SAOLTA UNIVERSITY		CHILDREN'S		REPUBLIC OF IRELAND	
	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
5-9yrs	0	0	0	0	0	<5	7	0	0	0	<5	<5	<5	<5	12	6
10-14yrs	11	32	6	16	5	26	23	70	<5	42	19	68	62	115	129	369
15-19yrs	133	289	150	220	120	223	162	308	41	111	103	229	33	104	742	1484
20-24yrs	206	198	215	188	182	148	227	251	68	72	126	159	<5	0	1025	1016
25-29yrs	231	176	147	139	146	101	176	116	69	70	105	80	0	0	874	682
30-34yrs	131	132	158	106	97	94	133	154	58	51	84	106	0	0	661	643
35-39yrs	144	138	124	165	107	93	131	73	45	48	79	88	0	0	630	605
40-44yrs	100	136	96	107	88	93	62	80	29	45	71	92	0	0	446	553
45-49yrs	78	172	81	93	73	78	89	104	36	25	59	89	0	0	416	561
50-54yrs	70	90	41	58	45	63	55	51	16	18	42	73	0	0	269	353
55-59yrs	52	83	28	59	32	46	49	49	12	17	38	42	0	0	211	296
60-64yrs	18	46	21	28	12	18	29	31	10	11	<5	23	0	0	94	157
65-69yrs	12	28	21	15	8	13	18	21	<5	12	8	13	0	0	71	102
70-74yrs	5	8	5	8	6	9	16	11	<5	<5	<5	6	0	0	40	46
75-79yrs	6	8	<5	<5	<5	<5	11	11	<5	<5	<5	<5	0	0	27	30
80-84yrs	<5	<5	<5	<5	<5	0	<5	<5	0	0	<5	<5	0	0	10	9
85yrs+	<5	<5	0	<5	0	<5	<5	6	0	<5	<5	<5	0	0	<5	15
Total	1201	1540	1098	1207	924	1010	1192	1340	397	530	749	1077	100	223	5661	6927

APPENDIX 1A: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE HSE IRELAND EAST HOSPITAL GROUP, 2018

	MATER MISERICORDIAE UNIVERSITY HOSPITAL		MIDLAND REGIONAL HOSPITAL, MULLINGAR		OUR LADY'S HOSPITAL, NAVAN		ST. COLUMCILLE'S HOSPITAL, LOUGHLINSTOWN		ST. LUKE'S HOSPITAL, KILKENNY		ST. MICHAEL'S HOSPITAL, DUN LAOGHAIRE		OTHER		WEXFORD GENERAL HOSPITAL	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<16yrs	0	0	6	11	<5	<5	0	0	6	12	0	<5	0	12	<5	24
16-17yrs	6	28	8	11	<5	12	0	0	<5	15	<5	<5	27	51	<5	21
18-24yrs	69	84	24	37	14	17	<5	0	73	49	<5	<5	74	84	21	40
25-34yrs	143	131	28	18	18	16	0	<5	57	26	8	5	84	81	24	30
35-44yrs	87	76	14	14	12	18	<5	0	32	44	<5	<5	81	85	14	35
45-54yrs	46	55	8	33	13	25	<5	0	15	31	<5	6	49	69	14	43
55-64yrs	22	20	<5	23	8	8	0	0	15	22	<5	0	18	45	<5	11
65yrs+	<5	<5	<5	<5	<5	5	0	0	5	5	0	<5	8	20	8	8
Total	376	398	91	151	72	102	<5	<5	206	204	18	25	341	447	93	212

APPENDIX 1B: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE HSE DUBLIN MIDLANDS HOSPITAL GROUP, 2018

	ADELAIDE AND MEATH HOSPITAL, TALLAGHT		MIDLAND REGIONAL HOSPITAL, PORTLAOISE		MIDLAND REGIONAL HOSPITAL, TULLAMORE		NAAS GENERAL HOSPITAL		ST. JAMES'S HOSPITAL	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<16yrs	0	0	10	20	<5	7	<5	<5	0	0
16-17yrs	25	52	11	16	<5	12	9	13	13	18
18-24yrs	106	83	29	29	13	17	60	61	90	95
25-34yrs	75	56	45	48	21	14	51	38	113	89
35-44yrs	73	93	19	28	10	16	39	62	79	73
45-54yrs	30	39	22	20	8	15	19	25	43	52
55-64yrs	14	38	5	8	<5	<5	<5	13	26	25
65yrs+	10	11	<5	0	<5	<5	8	<5	7	12
Total	333	372	144	169	61	87	189	215	371	364

APPENDIX 1C: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE HSE RCSI HOSPITAL GROUP, 2018

	BEAUMONT HOSPITAL		CAVAN GENERAL HOSPITAL		CONNOLLY HOSPITAL, BLANCHARDSTOWN		OUR LADY OF LOURDES HOSPITAL, DROGHEDA	
	Male	Female	Male	Female	Male	Female	Male	Female
<16yrs	0	0	0	8	0	<5	9	32
16-17yrs	29	40	<5	16	7	21	13	26
18-24yrs	80	94	26	23	52	83	88	53
25-34yrs	73	62	21	14	84	76	65	43
35-44yrs	63	51	30	27	57	61	45	47
45-54yrs	33	29	10	20	19	52	56	40
55-64yrs	11	18	9	11	8	11	16	24
65yrs+	7	8	0	<5	<5	9	7	7
Total	296	302	99	121	230	315	299	272

APPENDIX 1D: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE HSE SOUTH/SOUTH WEST HOSPITAL GROUP[1], 2018

	BANTRY GENERAL HOSPITAL		CORK UNIVERSITY HOSPITAL		UNIVERSITY HOSPITAL, KERRY		MERCY UNIVERSITY HOSPITAL, CORK		SOUTH TIPPERARY GENERAL HOSPITAL		UNIVERSITY HOSPITAL, WATERFORD	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<16yrs	0	0	20	46	7	21	13	23	9	15	11	17
16-17yrs	0	0	11	37	<5	29	16	18	10	15	9	20
18-24yrs	<5	7	68	100	54	49	110	79	36	45	40	108
25-34yrs	<5	6	70	80	49	29	114	76	39	44	34	35
35-44yrs	<5	<5	42	27	31	27	72	47	19	27	26	23
45-54yrs	<5	<5	41	43	27	39	45	33	13	24	17	15
55-64yrs	<5	<5	30	19	12	18	26	21	<5	10	6	11
65yrs+	<5	<5	16	13	6	12	14	7	5	10	7	7
Total	14	21	298	365	187	224	410	304	133	190	150	236

[1]There were no presentations recorded at Mallow General Hospital in 2018.

APPENDIX 1E: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE HSE UNIVERSITY OF LIMERICK HOSPITAL GROUP, 2018

	ENNIS HOSPITAL		NENAGH HOSPITAL		ST. JOHN'S HOSPITAL, LIMERICK		UNIVERSITY HOSPITAL, LIMERICK	
	Male	Female	Male	Female	Male	Female	Male	Female
<16yrs	0	0	0	0	0	0	9	59
16-17yrs	0	0	0	0	0	0	11	44
18-24yrs	<5	<5	<5	<5	0	0	89	119
25-34yrs	0	<5	<5	0	0	0	126	117
35-44yrs	0	10	0	0	0	0	74	83
45-54yrs	<5	<5	0	0	0	<5	51	39
55-64yrs	0	0	0	0	0	0	22	28
65yrs+	0	0	0	0	0	0	10	20
Total	<5	19	<5	<5	0	<5	392	509

APPENDIX 1F: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE HSE SAOLTA UNIVERSITY HEALTH CARE GROUP, 2018

	GALWAY UNIVERSITY HOSPITAL		LETTERKENNY GENERAL HOSPITAL		MAYO GENERAL HOSPITAL		PORTIUNCULA HOSPITAL, BALLINASLOE		SLIGO REGIONAL HOSPITAL	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<16yrs	14	54	6	22	<5	17	0	<5	5	13
16-17yrs	10	37	5	14	7	<5	0	15	7	11
18-24yrs	64	113	57	45	29	41	20	33	22	34
25-34yrs	63	87	51	31	30	26	15	18	30	24
35-44yrs	56	49	37	47	14	37	16	20	27	27
45-54yrs	39	46	22	41	14	26	17	18	9	31
55-64yrs	12	17	12	8	9	18	<5	7	8	15
65yrs+	6	10	0	0	7	11	<5	<5	<5	<5
Total	264	413	190	208	113	180	71	118	111	158

APPENDIX 1G: INDIVIDUALS WHO PRESENTED TO HOSPITAL WITH SELF-HARM IN THE HSE CHILDREN'S HOSPITAL GROUP, 2018

	CHILDREN'S UNIVERSITY HOSPITAL AT TEMPLE STREET		NATIONAL CHILDREN'S HOSPITAL AT TALLAGHT HOSPITAL		OUR LADY'S CHILDREN'S HOSPITAL, CRUMLIN	
	Male	Female	Male	Female	Male	Female
<16yrs	47	102	34	68	17	53
16-17yrs	<5	0	0	0	0	0
18-24yrs	0	0	<5	0	0	0
25-34yrs	0	0	0	0	0	0
35-44yrs	0	0	0	0	0	0
45-54yrs	0	0	0	0	0	0
55-64yrs	0	0	0	0	0	0
65yrs+	0	0	0	0	0	0
Total	48	102	35	68	17	53

APPENDIX II:

APPENDIX 2A: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE IRELAND EAST HOSPITAL GROUP, 2018

	MATER MISERICORDIAE UNIVERSITY HOSPITAL	MIDLAND REGIONAL HOSPITAL, MULLINGAR	OUR LADY'S HOSPITAL, NAVAN	ST. COLUMCILLE'S HOSPITAL, LOUGHLINSTOWN	ST. LUKE'S HOSPITAL, KILKENNY	ST. MICHAEL'S HOSPITAL, DUN LAOGHAIRE	OTHER	WEXFORD GENERAL HOSPITAL
	(n=774)	(n=242)	(n=174)	(n=5)	(n=410)	(n=43)	(n=788)	(n=305)
Admitted (general and psychiatric)	14.5%	36.4%	19.5%	0%	49.3%	32.6%	23.6%	40.3%
Patient would not allow admission	0.5%	0.4%	0%	0%	0%	0%	0%	0%
Left before recommendation	21.1%	9.9%	19%	0%	8.8%	9.3%	6.9%	12.8%
Not admitted	64%	53.3%	61.5%	100%	42%	58.1%	69.5%	46.9%

Note: It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, the figures for direct psychiatric admission detailed in Appendices 2A-2G may be underestimates.

APPENDIX 2B: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE DUBLIN MIDLANDS HOSPITAL GROUP, 2018

	ADELAIDE AND MEATH HOSPITAL, TALLAGHT	MIDLAND REGIONAL HOSPITAL, PORTLAOISE	MIDLAND REGIONAL HOSPITAL, TULLAMORE	NAAS GENERAL HOSPITAL	ST. JAMES'S HOSPITAL
	(n=705)	(n=313)	(n=148)	(n=404)	(n=735)
Admitted (general and psychiatric)	26.2%	55%	24.3%	26.7%	26%
Patient would not allow admission	1.4%	0.3%	0%	2%	0%
Left before recommendation	10.8%	9.9%	9.5%	14.9%	19.7%
Not admitted	61.6%	34.8%	66.2%	56.4%	54.3%

Note: It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, the figures for direct psychiatric admission detailed in Appendices 2A-2G may be underestimates.

APPENDIX 2C: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE RCSI HOSPITAL GROUP, 2018

	BEAUMONT HOSPITAL	CAVAN GENERAL HOSPITAL	CONNOLLY HOSPITAL, BLANCHARDSTOWN	OUR LADY OF LOURDES HOSPITAL, DROGHEDA
	(n=598)	(n=220)	(n=545)	(n=571)
Admitted (general and psychiatric)	23.1%	50%	32.1%	31.7%
Patient would not allow admission	0.7%	0%	0.6%	0%
Left before recommendation	22.4%	14.5%	15%	20.3%
Not admitted	53.8%	35.5%	52.3%	48%

Note: It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, the figures for direct psychiatric admission detailed in Appendices 2A-2G may be underestimates.

APPENDIX 2D: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE SOUTH/SOUTH WEST HOSPITAL GROUP[1], 2018

	BANTRY GENERAL HOSPITAL	CORK UNIVERSITY HOSPITAL	UNIVERSITY HOSPITAL, KERRY	MERCY UNIVERSITY HOSPITAL, CORK	SOUTH TIPPERARY GENERAL HOSPITAL	UNIVERSITY HOSPITAL, WATERFORD
	(n=35)	(n=663)	(n=411)	(n=714)	(n=323)	(n=386)
Admitted (general and psychiatric)	34.3%	50.7%	32.1%	14.1%	37.8%	24.9%
Patient would not allow admission	0%	0.2%	1.2%	0%	0.3%	0%
Left before recommendation	5.7%	6.6%	10.5%	13.3%	15.8%	10.9%
Not admitted	60%	42.5%	56.2%	72.5%	46.1%	64.2%

Note: It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, the figures for direct psychiatric admission detailed in Appendices 2A-2G may be underestimates.

[1]There were no presentations recorded at Mallow General Hospital in 2018.

APPENDIX 2E: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE UNIVERSITY OF LIMERICK HOSPITAL GROUP, 2018

	ENNIS HOSPITAL	NENAGH HOSPITAL	ST. JOHN'S HOSPITAL, LIMERICK	UNIVERSITY HOSPITAL, LIMERICK
	(n=21)	(n=4)	(n=1)	(n=901)
Admitted (general and psychiatric)	9.5%	0%	0%	15.9%
Patient would not allow admission	0%	0%	0%	0%
Left before recommendation	0%	25%	0%	12.7%
Not admitted	90.5%	75%	100%	71.5%

APPENDIX 2F: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE SAOLTA UNIVERSITY HEALTH CARE GROUP, 2018

	GALWAY UNIVERSITY HOSPITAL	LETTERKENNY GENERAL HOSPITAL	MAYO GENERAL HOSPITAL	PORTIUNCULA HOSPITAL, BALLINASLOE	SLIGO REGIONAL HOSPITAL
	(n=677)	(n=398)	(n=293)	(n=189)	(n=269)
Admitted (general and psychiatric)	25%	53.5%	31.7%	50.3%	40.9%
Patient would not allow admission	1.3%	0%	2.7%	1.6%	0.4%
Left before recommendation	12.1%	9.8%	8.5%	8.5%	5.9%
Not admitted	61.6%	36.7%	57%	39.7%	52.8%

Note: It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, the figures for direct psychiatric admission detailed in Appendices 2A-2G may be underestimates.

APPENDIX 2G: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE CHILDREN'S HOSPITAL GROUP, 2018

	CHILDREN'S UNIVERSITY HOSPITAL AT TEMPLE STREET	NATIONAL CHILDREN'S HOSPITAL AT TALLAGHT HOSPITAL	OUR LADY'S CHILDREN'S HOSPITAL, CRUMLIN
	(n=150)	(n=103)	(n=70)
Admitted (general and psychiatric)	40%	76.7%	91.4%
Patient would not allow admission	0.7%	0%	0%
Left before recommendation	0%	1%	2.9%
Not admitted	59.3%	22.3%	5.7%

Note: It may not always be recorded in the emergency department that a patient has been directly admitted to psychiatric inpatient care. Therefore, the figures for direct psychiatric admission detailed in Appendices 2A-2G may be underestimates.

APPENDIX III:

APPENDIX 3A: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS WHO PRESENTED WITH SELF-HARM IN THE HSE IRELAND EAST HOSPITAL GROUP, 2018

		MATER MISERICORDIAE UNIVERSITY HOSPITAL	MIDLAND REGIONAL HOSPITAL, MULLINGAR	OUR LADY'S HOSPITAL, NAVAN	ST. COLUMCILLE'S HOSPITAL, LOUGHLINSTOWN	ST. LUKE'S HOSPITAL, KILKENNY	ST. MICHAEL'S HOSPITAL, DUN LAOGHAIRE	OTHER	WEXFORD GENERAL HOSPITAL
Number of individuals who presented	Men	272	83	61	4	167	18	267	88
	Women	291	120	76	1	165	19	363	158
	Total	563	203	137	5	332	37	630	246
Number who repeated	Men	53	10	10	0	24	2	47	8
	Women	60	21	15	0	24	8	56	28
	Total	113	31	25	0	48	10	103	36
Percentage who repeated	Men	19.5%	12%	16.4%	0%	14.4%	11.1%	17.6%	9.1%
	Women	20.6%	17.5%	19.7%	0%	14.5%	42.1%	15.4%	17.7%
	Total	20.1%	15.3%	18.2%	0%	14.5%	27%	16.3%	14.6%

APPENDIX 3B: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS WHO PRESENTED WITH SELF-HARM IN THE HSE DUBLIN MIDLANDS HOSPITAL GROUP, 2018

		ADELAIDE AND MEATH HOSPITAL, TALLAGHT	MIDLAND REGIONAL HOSPITAL, PORTLAOISE	MIDLAND REGIONAL HOSPITAL, TULLAMORE	NAAS GENERAL HOSPITAL	ST. JAMES'S HOSPITAL
Number of individuals who presented	Men	281	109	56	151	290
	Women	306	131	71	163	291
	Total	587	240	127	314	581
Number who repeated	Men	50	25	6	24	77
	Women	38	17	9	24	60
	Total	88	42	15	48	137
Percentage who repeated	Men	17.8%	22.9%	10.7%	15.9%	26.6%
	Women	12.4%	13%	12.7%	14.7%	20.6%
	Total	15%	17.5%	11.8%	15.3%	23.6%

APPENDIX 3C: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS WHO PRESENTED WITH SELF-HARM IN THE HSE RCSI HOSPITAL GROUP, 2018

		BEAUMONT HOSPITAL	CAVAN GENERAL HOSPITAL	CONNOLLY HOSPITAL, BLANCHARDSTOWN	OUR LADY OF LOURDES HOSPITAL, DROGHEDA
Number of individuals who presented	Men	228	82	196	222
	Women	252	102	257	237
	Total	480	184	453	459
Number who repeated	Men	41	13	32	37
	Women	41	17	46	33
	Total	82	30	78	70
Percentage who repeated	Men	18%	15.9%	16.3%	16.7%
	Women	16.3%	16.7%	17.9%	13.9%
	Total	17.1%	16.3%	17.2%	15.3%

APPENDIX 3D: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS WHO PRESENTED WITH SELF-HARM IN THE HSE SOUTH/SOUTH WEST HOSPITAL GROUP[1], 2018

		BANTRY GENERAL HOSPITAL	CORK UNIVERSITY HOSPITAL	UNIVERSITY HOSPITAL, KERRY	MERCY UNIVERSITY HOSPITAL, CORK	SOUTH TIPPERARY GENERAL HOSPITAL	UNIVERSITY HOSPITAL, WATERFORD
Number of individuals who presented	Men	14	258	258	333	118	136
	Women	19	300	300	263	147	152
	Total	33	558	558	596	265	288
Number who repeated	Men	1	36	36	48	15	16
	Women	2	35	35	33	22	34
	Total	3	71	71	81	37	50
Percentage who repeated	Men	7.1%	14%	14%	14.4%	12.7%	11.8%
	Women	10.5%	11.7%	11.7%	12.5%	15%	22.4%
	Total	9.1%	12.7%	12.7%	13.6%	14%	17.4%

[1]There were no presentations recorded at Mallow General Hospital in 2018.

APPENDIX 3E: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS WHO PRESENTED WITH SELF-HARM IN THE HSE UNIVERSITY OF LIMERICK HOSPITAL GROUP, 2018

		ENNIS HOSPITAL	NENAGH HOSPITAL	ST JOHN'S HOSPITAL, LIMERICK	UNIVERSITY HOSPITAL, LIMERICK
Number of individuals who presented	Men	2	2	0	323
	Women	9	1	1	420
	Total	11	3	1	743
Number who repeated	Men	1	1	0	52
	Women	2	1	1	57
	Total	3	2	1	109
Percentage who repeated	Men	50%	50%	0%	16.1%
	Women	22.2%	100%	100%	13.6%
	Total	27.3%	66.7%	100%	14.7%

APPENDIX 3F: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS WHO PRESENTED WITH SELF-HARM IN THE HSE SAOLTA UNIVERSITY HEALTH CARE GROUP, 2018

		GALWAY UNIVERSITY HOSPITAL	LETTERKENNY GENERAL HOSPITAL	MAYO GENERAL HOSPITAL	PORTIUNCULA HOSPITAL, BALLINASLOE	SLIGO REGIONAL HOSPITAL
Number of individuals who presented	Men	215	155	101	57	103
	Women	312	162	152	95	133
	Total	527	317	253	152	236
Number who repeated	Men	31	24	11	12	8
	Women	60	20	19	17	16
	Total	91	44	30	29	24
Percentage who repeated	Men	14.4%	15.5%	10.9%	21.1%	7.8%
	Women	19.2%	12.3%	12.5%	17.9%	12%
	Total	17.3%	13.9%	11.9%	19.1%	10.2%

APPENDIX 3G: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS WHO PRESENTED WITH SELF-HARM IN THE HSE CHILDREN'S HOSPITALS GROUP, 2018

		CHILDREN'S UNIVERSITY HOSPITAL AT TEMPLE STREET	NATIONAL CHILDREN'S HOSPITAL AT TALLAGHT HOSPITAL	OUR LADY'S CHILDREN'S HOSPITAL, CRUMLIN
Number of individuals who presented	Men	43	35	16
	Women	89	64	45
	Total	132	99	61
Number who repeated	Men	4	0	2
	Women	12	6	7
	Total	16	6	9
Percentage who repeated	Men	9.3%	0%	12.5%
	Women	13.5%	9.4%	15.6%
	Total	12.1%	6.1%	14.8%

APPENDIX IV:

APPENDIX 4: SELF-HARM BY RESIDENTS OF THE REPUBLIC OF IRELAND, 2018

	MEN				WOMEN			
		SELF-HARM				SELF-HARM		
Age group	Population	Persons	Rate	95% CI*	Population	Persons	Rate	95% CI*
0-4yrs	163300	0	0	(+/-0)	156000	0	0	(+/-0)
5-9yrs	182100	12	7	(+/-4)	174700	6	3	(+/-3)
10-14yrs	170500	124	73	(+/-13)	162100	318	196	(+/-22)
15-19yrs	161200	608	377	(+/-31)	155000	1188	766	(+/-44)
20-24yrs	147300	800	543	(+/-38)	142000	772	544	(+/-39)
25-29yrs	145200	662	456	(+/-35)	145900	485	332	(+/-30)
30-34yrs	161100	512	318	(+/-28)	174800	470	269	(+/-25)
35-39yrs	193100	485	251	(+/-23)	205200	460	224	(+/-21)
40-44yrs	183200	346	189	(+/-20)	186700	400	214	(+/-21)
45-49yrs	170200	302	177	(+/-20)	171000	390	228	(+/-23)
50-54yrs	152000	213	140	(+/-19)	154600	291	188	(+/-22)
55-59yrs	138600	166	120	(+/-19)	141300	244	173	(+/-22)
60-64yrs	122400	84	69	(+/-15)	124100	126	102	(+/-18)
65-69yrs	106800	57	53	(+/-14)	108900	93	85	(+/-18)
70-74yrs	87400	39	45	(+/-14)	90200	44	49	(+/-15)
75-79yrs	57600	26	45	(+/-18)	64200	27	42	(+/-16)
80-84yrs	37500	9	24	(+/-16)	47600	9	19	(+/-13)
85yrs+	26200	3	11	(+/-13)	46800	14	30	(+/-16)
Total**	2405800	4448	193	(+/-6)	2451300	5337	229	(+/-6)

*95% Confidence Interval. **The total rates are European age-standardised rates per 100,000.

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