NATIONAL SELF-HARM REGISTRY IRELAND

ANNUAL REPORT 2017

EVE GRIFFIN
CHRISTINA B DILLON
NIALL McTERNAN
ELLA ARENSMAN
EILEEN WILLIAMSON
IVAN J PERRY
PAUL CORCORAN

National Suicide Research Foundation

N S R F

Contents

The National Self-Harm Registry Ireland team

Suggested Citation:

Griffin, E, Dillon, CB, McTernan, N, Arensman, E, Williamson, E, Perry, IJ, Corcoran, P, (2018). National Self-Harm Registry Ireland Annual Report 2017. Cork: National Suicide Research Foundation.

Published by:

National Suicide Research Foundation, Cork.

ISSN 1649 4326

This report has been commissioned by the HSE National Office for Suicide Prevention.

Hard copies of the Annual Report 2017 are available from:

National Suicide Research Foundation
4th Floor
Western Gateway Building
University College Cork
Ireland

Tel: +353 21 4205551
Email: info@nsrf.ie

Electronic copies of the Annual Report 2017 are available from the website of the National Suicide Research Foundation: www.nsrf.ie

Acknowledgements

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

HSE Dublin/Midlands Region
Liisa Aula
Jennifer King
Edel McCarra
Diarmuid O'Connor
Laura Shehan

HSE Dublin/North East Region
Agnieszka Biedrycka
Alan Boon
Rita Cullivan
James Camien McGuiggan

HSE South Region
Ursula Burke
Tricia Shannon
Karen Twomey
Una Walsh

HSE West Region
Ailish Melia
Catherine Murphy
Mary Nix
Eileen Quinn

Sean Cronin, Millennium Software: Database development
Alan O'Shea, aosdesign: Graphic design
Tiernan Hourihan, NSRF: Technical support
Sarah O'Meara, NSRF: Research Officer

We would like to acknowledge the assistance of staff of the Department of Health, the HSE National Office for Suicide Prevention, the respective HSE regions and the individual hospitals that have facilitated the work of the Registry.

NSRF

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Western Gateway Building, University College Cork

Foreword

The National Self-Harm Registry Ireland (NSHRI) was established over fifteen 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. Challenges remain, given that there has been an increasing trend in the rate of self-harm among young people, as well as in the use of methods associated with high lethality. The link between suicidal behaviour and social inequalities is also apparent, with rates of self-harm highest in areas with high levels of deprivation, as illustrated in this report. A high incidence of self-harm has also been reported among prisoners and the homeless population. These findings underline an on-going need for prevention and intervention programmes to be implemented at national level. Increased and continued support should be provided for evidence-informed and best practice prevention and mental health promotion programmes to increase awareness of mental health issues among the general population, in particular those at risk for suicidal behaviour.

The Registry fulfils a major objective in providing timely data on trends and high-risk groups for self-harm in Ireland. Information from the Registry informed core actions included in the Irish National Strategy to Reduce Suicide in Ireland, *Connecting for Life 2015-2020*, and the Registry forms a key component of the outcomes framework being used to monitor progress and examine the impact of implemented actions.

In 2017, Professor David Gunnell from the University of Bristol was commissioned by the National Office for Suicide Prevention to carry out a review of the Registry. Outcomes and recommendations from this review include optimising data collection systems and maximising the research potential of the Registry. Ongoing work is being undertaken by the National Suicide Research Foundation to link the Registry data with other sources of health data, including mortality data from the Central Statistics Office, and data collected as part of the National Dialectical Behaviour Therapy Project. Such activities will provide evidence for predictors of both self-harm and suicide risk among specific populations.

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 sixteenth 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 2017 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 2017, the Registry recorded 11,600 presentations to hospital due to self-harm nationally, involving 9,103 individuals. Compared to 2016, the age-standardised rate of individuals presenting to hospital following self-harm in 2017 was 3% lower, at 199 per 100,000. This is 11% lower than the peak rate of 223 per 100,000 reported for 2010. However, the rate in 2017 was still 6% higher than in 2007, the year before the economic recession.

In 2017, the national male rate of self-harm was 181 per 100,000, 2% lower than 2016. The female rate of self-harm in 2017 was 218 per 100,000, 4% lower than 2016. Thus, the female rate of self-harm in 2017 was only 1% higher than it was in 2007 whereas the male rate in 2017 was 12% higher than its pre-recession level.

Consistent with previous years, the peak rate for women was in the 15-19 years age group at 758 per 100,000, whereas the peak rate among men was in 20-24 year-olds at 505 per 100,000. These rates imply that one in every 132 girls in the age group 15-19 and one in every 198 men in the age group 20-24 years presented to hospital in 2017 as a consequence of self-harm. In 2017, the only significant change from 2016 in the rate of hospital-treated self-harm by age was among women aged 20-24 years, where the rate decreased by 15% from 583 to 496 per 100,000.

There was variation in the rate of self-harm by region, with the highest rates recorded in urban areas. The 2017 report presents data by administrative city/county, by Local Health Office (LHO) and, for the first time, by HSE Community Healthcare Organisation (CHO). Also, for the first time, maps are provided of Dublin city electoral divisions to illustrate the strong association between the rate of self-harm and socio-economic deprivation.

There were 591 presentations made by residents of homeless hostels and people of no fixed abode in 2017, accounting for approximately 5% of all presentations recorded by the Registry. Since 2007, the number of presentations by those with no fixed abode has increased by 72%.

Consistent with previous years, intentional drug overdose was the most common method of self-harm, involved in almost two-thirds (65%) of self-harm presentations registered in 2017. Self-cutting was recorded in 27% of all episodes and was more common in men (29%) than in women (26%). Attempted hanging was involved in 7% of all self-harm presentations (11% for men and 4% for women). At 858, the number of presentations involving attempted hanging was 13% higher than 2016 (+9% for men and +21% for women). While rare as a method of self-harm, the number of presentations involving attempted drowning increased by 12% among women from 2016 to 2017 (from 137 to 154). Alcohol was involved in 31% of all cases. Alcohol was significantly more often involved in male episodes of self-harm than female episodes (33% and 29%, respectively).

In 2017, 72% (n=8,039) of patients were assessed by a member of the mental health team in the presenting hospital. In 2017, 12% 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 (80%) 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 2017 (21.5%) was similar to previous years. Of the 9,103 self-harm patients treated in 2017, 1,322 (14.5%) made at least one repeat presentation to hospital during the calendar year. Therefore, repetition continues to pose a major challenge to hospital staff and family members involved. In 2017, at least five self-harm presentations were made by 139 individuals. These represented just 2% of all self-harm patients, but accounted for 9% 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

The 2017 Registry report indicates a further stabilisation of the rate of self-harm in Ireland. However, key findings from the report highlight new and ongoing priorities.

Ongoing recommendations

Clinical management of self-harm

The Registry consistently provides evidence for different profiles of self-harm patients presenting to hospital emergency departments, such as those engaging in highly lethal acts of self-harm with high risk of subsequent suicide and those using methods with low lethality but who may be at risk of non-fatal repetition. It is reassuring to see that the proportion of patients receiving a mental health assessment (72%) is higher than that reported in other countries.[1] The National Clinical Programme for the Assessment and Management of people presenting to the Emergency Department following Self-Harm has now been implemented in 24 adult emergency departments in Ireland.[2] Despite this allocation of services, reductions in the rate of repeat self-harm or the proportion of individuals leaving before a recommendation have not yet been seen. There remains considerable variation in recommended next care across hospitals. Therefore ongoing support for evidence-based programmes to deliver high-quality care for those presenting with self-harm are warranted. The Registry will continue to monitor the impact of such national programmes on hospital-treated self-harm.

Role of alcohol in self-harm

In line with previous years, misuse or abuse of alcohol is one of the factors associated with the higher rate of self-harm presentations on Sundays, Mondays and public holidays, around the hours of midnight. Recent publications from the Registry data have highlighted the role of alcohol in self-harm.[3,4] 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. In addition, alcohol involvement has been shown to be strongly associated with self-harm presentations out-of-hours, at weekends and on public holidays. The Registry findings related to alcohol provide further support for the full implementation of the Public Health (Alcohol) Bill, which would introduce evidence-based policies to reduce the burden of alcohol harm on our society by improving health, safety and wellbeing.

Restricting access to means

The proportion of presentations involving methods associated with high lethality has steadily increased in recent years, with further increases in 2017, most pronounced among women. In line with previous research, more innovative and intensified efforts should be made to reduce self-harm and suicide by hanging. These should include monitoring of media and social media platforms which increasingly have portrayed suicide by hanging and other highly lethal methods.[5] These findings also underline the need for more in-depth research into self-harm method escalation, and the importance of suicide risk assessment combined with psychiatric and psychosocial assessment considering the high risk of subsequent suicide.

In line with previous years, drug overdose was the most common method of self-harm recorded. Over the years, the Registry has identified the drug types most frequently involved in intentional overdoses. New research has classified the range of drugs recorded by the Registry according to the World Health Organisation's (WHO) Anatomical Therapeutic Chemical (ATC) classification system. This work has systematically classified the wide range of drugs involved in intentional overdoses, and will be instrumental in facilitating comparative work in this area.[6] This system has allowed for examination of trends in specific drug types, with a recent publication highlighting the increasing involvement of gabapentinoids (prescription-only neuropathic pain medication).[7] Despite a decrease in their involvement in intentional overdose in 2017, minor tranquillisers have been the most frequently used type of drug involved in intentional overdoses. Reducing access to frequently used drugs should be an ongoing priority.

[1] Steeg, S, et al. (2018). Routine hospital management of self-harm and risk of further self-harm. *Psychological Medicine*. 48: 315-26.

[2] Health Service Executive (2017). National Clinical Programme for the Assessment and Management of Patients Presenting to the Emergency Department following Self-Harm. Review of the Operation of the Programme 2017. http://www.hse.ie/eng/about/Who/clinical/natclinprog/mentalhealthprogramme/

[3] Griffin, E., et al. (2017). The paradox of public holidays: Hospital-treated self-harm and associated factors. *Journal of Affective Disorders*. 218: 30-4.

[4] Griffin, E., et al. (2017). The involvement of alcohol in hospital-treated self-harm and associated factors: Findings from two national registries. *Journal of Public Health*. 1-7.

[5] 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.

[6] Daly, C, et al. (2018). Frequently used drug types and alcohol involvement in intentional drug overdoses in Ireland: A national registry study. *European Journal of Public Health*. 28: 681-86.

[7] Daly, C, et al. (2017). Intentional drug overdose involving Pregabalin and Gabapentin: Findings from the National Self-Harm Registry Ireland 2007-2015. Clinical Drug Investigation, 38: 373-80.

New recommendations

The highest rates of self-harm are consistently seen in young people. We have recently shown[8] that between 2007 and 2016 the rate of self-harm in young people aged 10-24 years increased by 22%. This is particularly striking when compared with trends in the overall population during the same time. The increases were most pronounced among females and young adults. There was also an increase in the use of highly lethal methods of self-harm among young people. In Ireland, there is limited formal interaction between child and adult services[9] and many young people who reach the upper age limit of child and adolescent mental health services (CAMHS) are not referred to adult services, despite ongoing needs.[10] Therefore, young adults may represent an unmet need in terms of clinical services and appropriate mental health promotion interventions. Furthermore, 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.

Previous research has highlighted the high incidence of self-harm among the prisoner population.[11] While only a minority of self-harm events in Irish prisons result in attendance to hospital (44 in 2017), the first report from the Self-Harm Assessment and Data Analysis (SADA) Project[12] found that approximately 4% of the prison population have engaged in self-harm. The rate of self-harm was highest among female prisoners, those aged 18-29 years and for prisoners on remand. The findings from this report identify the individual and context-specific risk factors relating to self-harm within the prison setting. The recording of such data is important to increase and improve our responses to maintaining safer prisons.

In 2017, a total of 591 presentations were made by people of no fixed abode or residents of homeless hostels. While representing a small proportion of overall presentations, the homeless are a particularly vulnerable population, at high risk of repetition and mortality from all causes.[13] A recent publication from the Registry found that the incidence of self-harm was 30 times higher among the homeless population compared with domiciled persons.[14] The findings from this study underline the need for targeted preventive actions for this group. Further work to explore the specific challenges of treating self-harm among the homeless is also required.

Eve Griffin
Manager, National Self-Harm Registry Ireland, National Suicide Research Foundation, Cork

Christina B Dillon
Statistical Epidemiologist, National Self-Harm Registry Ireland, National Suicide Research Foundation, Cork

Niall McTernan
Data Manager, National Self-Harm Registry Ireland, National Suicide Research Foundation, Cork

Ella Arensman
Chief Scientist, National Suicide Research Foundation, Cork
Research Professor, School of Public Health, University College Cork

Ivan J Perry
Professor, School of Public Health, University College Cork

Eileen Williamson
Chief Executive Officer, National Suicide Research Foundation, Cork

Paul Corcoran
Head of Research, National Suicide Research Foundation Cork

[8] 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.

[9] McNamara, N, et al. (2014). Transition from child and adolescent to adult mental health services in the Republic of Ireland: an investigation of process and operational practice. *Early Intervention Psychiatry*. 8:291–297.

[10] McNicholas, F, et al. (2015). Who is in the transition gap? Transition from CAMHS to AMHS in the Republic of Ireland. *Irish Journal of Psychological Medicine*. 32:61–69.

[11] Hawton, K., et al. (2014). Self-harm in prisons in England and Wales: an epidemiological study of prevalence, risk factors, clustering, and subsequent suicide. *Lancet*. 383(9923): 1147-54.

[12] Irish Prison Service (2018). Self-harm in Irish Prisons 2017. First report from the Self-Harm Assessment and Data Analysis (SADA) Project.

[13] Haw, C., et al. (2006). Deliberate self-harm patients of no fixed abode: A study of characteristics and subsequent deaths in patients presenting to a general hospital. *Social Psychiatry and Psychiatric Epidemiology*. 41: 918-25.

[14] Barrett, P, et al. (2018). Self-harm among the homeless population in Ireland: A national registry-based study of incidence and associated factors. *Journal of Affective Disorders*. 229: 523-81.

2017 statistics at a glance

Presentations
11,600

Persons
9,103

Rates in young people 10-24 years increased by 21% between 2007-2017

RATES:

199
per 100,000

1 in every 503
had a self-harm act

Male: 20-24 year-olds (505 per 100,000)
1 in every 198

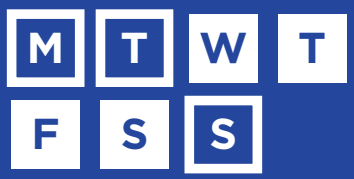
Female: 15-19 year-olds (758 per 100,000)
1 in every 132

PEAK RATES WERE AMONG YOUNG PEOPLE

TIME:

Peak time

Almost **half** of presentations were made between 7pm-3am

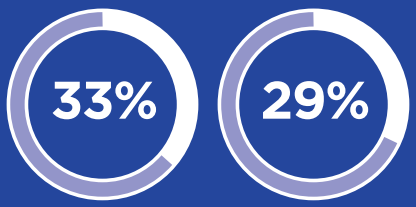


Monday, Tuesday and **Sunday** had the highest number of self-harm presentations

METHOD:

2 in every 3
involved **overdose**

3 in every 10
involved **alcohol**



Men **Women**

1 in every 4
involved **self-cutting**

TREATMENT:

72%
received an assessment in the ED

80% received a follow-up recommendation after discharge

12% left ED before a recommendation was made

1 in 7
persons had a repeat attendance in 2017

Recent publications from the Registry (2017-2018)

Increasing rates of self-harm among children, adolescents and young adults: A 10-year national registry study 2007-2016

Background
The incidence of self-harm is highest among young people. We examined trends in rates of self-harm among children (10-14 years), adolescents (15-19 years) and young adults (20-24 years) across a ten-year period in Ireland, using data from the National Self-Harm Registry Ireland. Trends in methods of self-harm used by young people were also examined.

Findings
The average person-based rate of self-harm among 10–24-year-olds was 318 per 100,000. Peak rates were observed among 15–19-year-old females (564 per 100,000) and 20–24-year-old males (448 per 100,000). Between 2007 and 2016, rates of self-harm increased by 22%, with increases most pronounced for females and those aged 10–14 years. There were marked increases in specific methods of self-harm, including those associated with high lethality.

Conclusion
These findings are of concern given that at a national level, the rate of self-harm has stabilized since the economic recession. In particular, the age of onset of self-harm appears to be decreasing. This, coupled with increasing use of highly lethal methods of self-harm among young people, indicates that targeted interventions in key transition stages for young people are warranted. They also emphasize the need for child and adolescent mental health services to be linked in with each hospital. However, given that the majority of adolescent self-harm does not result in hospital attendance, opportunities to prevent suicidal behaviour in primary and post-primary settings may be effective, particularly programmes which develop resilience and coping strategies.

Source: Griffin E, McMahon E, McNicholas F, Corcoran P, Perry IJ, Arensman E (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(7): 663-71. https://doi.org/10.1007/s00127-018-1522-1

Self-harm among the homeless population in Ireland: A national registry-based study of incidence and associated factors

Background
Little is known about self-harm among the homeless population. The aim of this study was to estimate the incidence of self-harm among the homeless population and to assess factors associated with self-harm in this population. Data from the National Self-Harm Registry Ireland for the period 2010 to 2014 were used.

Findings
The findings indicate that the rate of self-harm presenting to hospital emergency departments between 2010 and 2014 was 30 times higher among the homeless population compared with those living at a fixed residence. In addition, those who were homeless at presentation to hospital were more likely to be male, present with highly lethal methods of self-harm and use street drugs in intentional overdose. There was a greater risk of repetition among the homeless. Repetition of self-harm was higher for those who presented with self-cutting and for those who didn't receive a psychiatric review in the emergency department. Almost three quarters of self-harm presentations among the homeless were among people living in Dublin City or Cork City. The overall number of annual self-harm presentations in the homeless increased from 305 in 2010 to 513 in 2014. The visibly homeless population increased by 64% between 2011 and 2016; this is likely to account for some of the increase in overall number of self-harm presentations during the study period.

Conclusion
This study shows that the homeless population in Ireland is disproportionately affected by self-harm. The paper concludes that the homeless are a particularly vulnerable population, and enhanced efforts to prevent self-harm among this group are required.

Source: Barrett P, Griffin E, Corcoran P, O'Mahony MT, Arensman E (2018). Self-harm among the homeless population in Ireland: A national registry-based study of incidence and associated factors. Journal of Affective Disorders, 229: 523-31. https://doi.org/10.1016/j.jad.2017.12.040

Recommended next care following hospital-treated self-harm: Patterns and trends over time

Background
There is some evidence to suggest that clinical management of self-harm in emergency settings is associated with improved outcomes. The specific study objectives were to examine variation in the management of self-harm patients based on standard demographic and clinical characteristics; to map regional variation in recommended next care following self-harm at national level and to examine trends over time. Data from the National Self-Harm Registry Ireland for the period 2004 to 2012 were utilised.

Findings
Across the study period a total of 101,904 self-harm presentations were made to hospital, involving 63,457 individuals. Over the course of the study there was a declining number of presentations resulting in patient admission following attendance with self-harm. Recommended next care varied according to hospital location, with general admission rates ranging from 11% to 61% across administrative health regions. The factor which most strongly affected next care was the presenting hospital. Being male, older age, method, repeat self-harm, time of attendance and residence of the patient were all identified as influencing care received. Psychiatric admission was most common when highly lethal methods of self-harm were used. A relatively high proportion of patients left the ED without being seen (15%).

Conclusions
This is the first study addressing recommended next care following self-harm presenting to general hospital at national level. The findings of this study indicate that over time there was a decreasing number of presentations resulting in inpatient admission to the presenting hospital following self-harm. In addition, significant variation in the patterns of recommended next care was observed across hospitals. This variation indicates that management of self-harm patients may be determined more by where they present than by the needs of the patient. The study outcomes underline the need to standardise the clinical management of self-harm patients in general hospital settings.

Source: Arensman E, Griffin E, Daly C, Corcoran P, Cassidy E, Perry IJ (2018). Recommended next care following hospital-treated self-harm: Patterns and trends over time. PLoS ONE 13(3):e0193587. https://doi.org/10.1371/journal.pone.0193587

Acute hospital reconfiguration and self-harm presentations: a before-and-after study

Background
The evidence for improved patient outcomes following acute hospital reconfiguration is limited. In recent years, the Irish health service has reconfigured acute hospital care, involving reducing the operation of a number of smaller hospitals. However no study has examined the impact on presentations to hospital emergency departments (EDs) involving self-harm, which is an important consideration. This study assessed evidence of the impact of the reconfiguration of the Mid-Western Hospital Group in April 2009. We assessed the impact of the reconfiguration of acute services within a hospital group in terms of the number and clinical management of self-harm presentations. The study was conducted across the three Mid-Western regional hospitals in Ireland during 2004–2014. Reconfiguration in April 2009 involved two hospitals reducing the operation of their emergency departments (EDs) from 24 to 12 hours.

Findings
The results of this study found that the reconfiguration of hospital services in this region led to an increased number of presentations to the remaining larger hospital (+19 per month), where services remained essentially unchanged. This increase was approximately equivalent to the decreases at the other hospital sites. Reconfiguration of hospital services was also associated with changes in clinical management, in particular the provision of assessments for self-harm patients.

Conclusions
This was the first known study to examine the impact of hospital reconfiguration on delivery of care for self-harm patients. The reconfiguration did not reduce presentations resulting from self-harm, but was associated with patterns of patient flow – with greater demands being placed on the remaining larger sites. These findings have important implications for policy makers and those implementing reconfiguration of acute services.

Source: Griffin E, Murphy C, Perry IJ, Lynch B, Corcoran P (2018). Acute hospital reconfiguration and self-harm presentations: a before-and-after study. Irish Journal of Medical Science, https://doi.org/10.1007/s11845-018-1797-y

Frequently used drug types and alcohol involvement in intentional drug overdoses in Ireland: A national registry study

Background
Intentional drug overdose (IDO) is the most common form of hospital-treated self-harm, yet no national study has systematically classified the range of drugs involved using a validated system. We aimed to determine the profile of patients engaging in overdose, to identify drugs frequently used and to quantify the contributions of multiple drug use and alcohol involvement. Between 2012 and 2014, the National Self-Harm Registry Ireland recorded 18,329 presentations of non-fatal IDO to Irish emergency departments. Drugs were categorised using the Anatomical Therapeutic Chemical classification system.

Findings
Analgesics (32.4%), antidepressants (21.9%), anxiolytics (21.2%) and hypnotics and sedatives (21.0%) were the most frequently used drugs types involved in overdose. Paracetamol was the most frequently used drug, particularly among females and persons under 25 years, while alcohol was most often present in overdoses involving anxiolytics and illegal drugs. Multiple drug use was a factor in almost half of presentations.

Conclusions
These findings highlight the importance of addressing drug and alcohol misuse, potential inappropriate prescribing and the enforcement of legislation restricting specific drug sales.

Source: Daly C, Griffin E, Ashcroft DM, Webb RT, Perry IJ, Arensman E. (2018). Frequently used drug types and alcohol involvement in intentional drug overdoses in Ireland: a national registry study. European Journal of Public Health, 28 (4), 681-86. https://doi.org/10.1007/s11845-018-1797-y

Intentional drug overdose involving Pregabalin and Gabapentin: Findings from the National Self-Harm Registry Ireland, 2007–2015

Background
Concerns about the misuse of gabapentinoids (i.e. pregabalin and gabapentin) have increased in recent years. This paper examined the trends in the prevalence of gabapentinoids taken in IDO, the profile of individuals taking them, and associated overdose characteristics. Presentations to emergency departments involving IDO, recorded by the National Self-Harm Registry Ireland between 1 January 2007 and 31 December 2015 were examined.

Findings
Gabapentinoids were involved in 2115 (2.9%) of the 72,391 IDOs recorded. Presentations involving a gabapentinoid increased proportionally from 0.5% in 2007 to 5.5% in 2015. The majority of IDOs involving a gabapentinoid were made by females (59.9%), with over one-third (37.2%) involving alcohol. Compared with IDOs involving other drugs, presentations with a gabapentinoid were made by persons who were older and involved a significantly greater median quantity of tablets. Admission to hospital was significantly more common following IDOs with a gabapentinoid.

Conclusions
This study identified the increasing use of gabapentinoids in IDO, describing the profile and overdose characteristics of presentations. It is important for clinicians to exercise vigilance while prescribing gabapentinoids, including being aware of other medications that their patients may have access to. Our findings support the need for routine monitoring for signs of misuse among those prescribed gabapentinoids.

Source: Daly C, Griffin E, Ashcroft DM, Webb RT, Perry IJ, Arensman E. (2017). Intentional Drug Overdose Involving Pregabalin and Gabapentin: Findings from the National Self-Harm Registry Ireland, 2007–2015. Clinical Drug Investigation, 38 (4), 373-80. https://doi.org/10.1007/s40261-017-0616-y

Alcohol involvement in suicide and self-harm: Findings from two innovative surveillance systems

Background
Alcohol misuse and alcohol consumption are significant risk factors for suicidal behaviour. This study sought to identify factors associated with alcohol consumption in cases of suicide and non-fatal self-harm presentations. Suicide cases in Cork, Ireland, from September 2008 to June 2012 were identified through the Suicide Support and Information System. Emergency department presentations of self-harm in the years 2007–2013 were obtained from the National Self-Harm Registry Ireland.

Findings
Alcohol consumption was detected in the toxicology of 44% out of 307 suicide cases. Only younger age was significantly associated with having consumed alcohol among suicides. Alcohol consumption was noted in the case notes in 21% out of 8,145 self-harm presentations. Logistic regression analyses indicated that variables associated with having consumed alcohol in a self-harm presentation included male gender, older age, overdose as a method, not being admitted to a psychiatric ward, and presenting out-of-hours.

Conclusions
Alcohol consumption commonly precedes suicidal behaviour and several factors differentiated alcohol-related suicidal acts. Self-harm cases, in particular, differ in profile when alcohol is consumed and may require a tailored clinical approach to minimize risk of further nonfatal or fatal self-harm.

Source: Larkin C, Griffin E, Corcoran P, McAuliffe C, Perry IJ, Arensman E (2017). Alcohol involvement in Suicide and Self-Harm: Findings from two innovative surveillance systems. Crisis, 38, 413-22. https://doi.org/10.1027/0227-5910/a000488

Self-harm, methadone use and drug-related deaths amongst those registered as being of no fixed abode or homeless in Ireland

Background
This work aims to contribute to the evidence base regarding the health of those who experience homelessness in Ireland by collating data on methadone use, drug-related deaths and emergency department presentations due to self-harm. Data from the Central Methadone Treatment List (CTL), National Self-Harm Registry Ireland and the National Drug-Related Deaths Index were analyzed.

Findings
The percentage on the CTL registered as being of no fixed abode (NFA) or homeless increased from 2% to 7% from 2011-2014. The absolute number of presentations with deliberate self-harm from those of NFA increased by 49% from 2007-2014. The number of drug-related deaths amongst those of NFA or homeless and who died in Dublin fluctuated from 2004-13 with an overall upward trend.

Conclusions
There is an urgent need to adequately resource and coordinate those services which aim to address factors (social and health inequalities, mental ill-health and addiction) which lead people into – and prevent them exiting from - homelessness.

Source: Glynn RW, Lynn E, Griffin E, Fitzgerald M, Ward M (2017). Self-harm, methadone use and drug-related deaths amongst those registered as being of no fixed abode or homeless in Ireland. Irish Medical Journal, 110, P631

Self-harm in Irish Prisons 2017

As part of Ireland's National Strategy to Reduce Suicide - *Connecting for Life 2015-2020* - the Irish Prison Service (IPS) committed to reviewing, analysing and learning from each episode of self-harm within the prison estate. In 2017, a multidisciplinary subgroup of the IPS National Suicide and Harm Prevention Steering Group (NSHPSG) implemented the Self-Harm Assessment and Data Analysis (SADA) Project across the prison estate. This system of monitoring self-harm will provide robust information relating to the incidence and profile of self-harm within prison settings, identify individual- and context-specific risk factors relating to self-harm and examine patterns of repeat self-harm (both non-fatal and fatal). Uniquely, the SADA Project collects information on the level of medical severity and suicidal intent associated with self-harm episodes occurring in the prison setting in Ireland. The Health Service Executive's (HSE) National Office for Suicide Prevention (NOSP) and the National Suicide Research Foundation (NSRF) assist the IPS with data management, data analysis and reporting. *Self-harm in Irish Prisons 2017: First report from the Self-Harm Assessment and Data Analysis (SADA) Project* presents the full findings of the first year of the SADA Project.

Data on episodes of self-harm were recorded across all 12 prisons in Ireland. In 2017, the average prison population was 3,427.

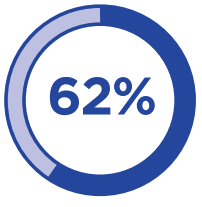
In Irish prisons in 2017...

223
episodes
of self-harm were recorded, involving **138 individuals**

Rate
4 per 100 prisoners

Female rate
Female rate was 4 times higher
x4

Rate was x2 higher among prisoners on remand compared to sentenced prisoners



62% involved self-harm by **sharp objects**
(2 in every 3)

21% involved **attempted hanging**
(1 in every 5)

1 in 8
hospitalised

1 in 6
high suicidal intent

Half of episodes occurred between **2pm** and **8pm**

M T W T F S S

One in five episodes occurred on **Tuesdays**

1 in 4
repeated self-harm in 2017

Contributory factors

Mental health

Environmental

Relational

Procedural

Medical

Impact of the Registry Internationally

At an international level, the Registry has been recognised by the World Health Organization (WHO) as a template for the surveillance of hospital treated self-harm, with guidance for countries being provided by the WHO Practice Manual (WHO, 2016). Arising from this work, the NSRF has delivered several self-harm surveillance trainings internationally, in collaboration with the WHO and the International Association for Suicide Prevention (IASP).

World Health Organisation sub regional workshop on suicide prevention, Windhoek, Namibia

Along with a representative from the Department of Mental Health and Substance Abuse at WHO, the NSRF co-facilitated a workshop in Namibia on:

- The process of developing suicide prevention strategies and programmes
- The process of establishing a hospital-based suicide attempt / self-harm surveillance system based on the template of the National Self-Harm Registry Ireland
- Evidence-based interventions in the African context

The workshop was delivered as part of the NSRF's designation as a WHO Collaborating Centre for Surveillance and Research in Suicide Prevention. Participants from Ghana, Namibia, Mozambique, Uganda, Kenya, Zambia, Zimbabwe, South Africa and Tanzania were in attendance.

Luxembourg Ministry of Health Suicide Attempts Prevention Conference

The NSRF were invited to present at a conference on suicide attempt prevention in Luxembourg as part of its designation as a WHO Collaborating Centre. Professor Ella Arensman delivered a presentation entitled 'WHO Guidelines for establishing and maintaining surveillance for suicide attempt and self-harm at global level', based on the National Self-Harm Registry Ireland.

Supported by the Ministry of Health in Luxembourg, a national surveillance system for hospital treated self-harm, based on the WHO guidelines and the Registry, will be implemented in Luxembourg.

World Health Organisation Evaluation of National Suicide Prevention and Suicide Registration Programs in Iran

The NSRF was commissioned by The WHO Regional Office for the Eastern Mediterranean Region, the WHO Country Office in Iran, and the Ministry of Health and Medical Education in Iran, to conduct an evaluation of the national suicide prevention and suicide registration programs in Iran.

Since 2009, a national registry system for suicide and attempted suicide has been established involving 42 universities of medical science and covering 83.6% of the country's population based on the districts included in the provinces. Data on non-fatal suicide attempts is obtained from general hospitals that report their data to the universities of medical science.

Recommendations included enhancing the standard operating procedures for surveillance of suicide attempts (self-harm) at national level, including guidance on data collection, case ascertainment, data items and analysis, in accordance with the WHO guidelines (WHO, 2016), which are based on the National Self-Harm Registry Ireland.

International Association for Suicide Prevention training programme in Nairobi, Kenya

Invited by the International Association for Suicide Prevention (IASP), the NSRF led a training programme for professionals in health and community based services in Nairobi, Kenya.

Professor Ella Arensman delivered the following training workshops:

- Awareness of depression and suicidal behaviour among professionals in health and community based services.
- Surveillance of suicide and hospital-based self-harm/attempted suicide
- The process of establishing a hospital-based self-harm/suicide attempt surveillance system based on the template of the National Self-Harm Registry Ireland.

Methods

Background

The National Suicide Research Foundation was founded in January 1995 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 collected 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 2017 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 2017, self-harm data were collected from hospitals in the Republic of Ireland (pop: 4,816,239).

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 2017 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 2017.

Population data

For 2017, 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 2017 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 2017. 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 2017.

A note on confidence intervals

Confidence intervals provide us with a margin of error within which underlying rates may be presumed to fall on the basis of observed data. Confidence intervals assume that the event rate (n/p) is small and that the events are independent of one another. A 95% confidence interval for the number of events (n), is $n +/- 2\sqrt{n}$. For example, if 25 self-harm presentations are observed in a specific region in one year, then the 95% confidence interval will be $25 +/- 2\sqrt{25}$ 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. In addition, rates of self-harm and deprivation scores according to Dublin City Electoral Divisions are illustrated using maps. QGIS, version 2.18.16, was used to generate the maps (www.qgis.org).

SECTION I:

Hospital Presentations

Hospital-treated self-harm in the Republic of Ireland

For the period from 1 January to 31 December 2017, the Registry recorded 11,600 self-harm presentations to hospital that were made by 9,103 individuals. Thus, the number of self-harm presentations and the number of persons involved were similar to those recorded in 2016. 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[1]	11,445	+2%	8,876	+1%
2017	11,600	+1%	9,103	+3%

Table 1: Number of self-harm presentations and persons who presented in the Republic of Ireland in 2002-2017 (2002-2005 figures extrapolated to adjust for hospitals not contributing data).

[1]Figures for 2016 have been updated to include an additional 40 cases which were late registered.

The age-standardised rate of individuals presenting to hospital in the Republic of Ireland following self-harm in 2017 was 199 (95% Confidence Interval (CI): 195 to 203) per 100,000. This was a significant decrease (-3%) on the rate of 205 (95% CI: 201 to 209) per 100,000 from 2016. The incidence of self-harm in Ireland is examined in detail in Section II of this report.

The numbers of self-harm episodes treated in the Republic of Ireland by hospital group, age and gender are given in Appendix 1. Of the recorded presentations in 2017, 44% were made by men and 56% were made by women. Self-harm episodes were generally confined to the younger age groups. Just under half of all presentations (49%) 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 10-14 year age group where there were three times 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 591, representing 5.1% of all presentations. This figure is 13% higher than the figure reported in 2016 (n=522). A minority (51; 0.4%) of presentations were made by hospital inpatients.

Self-harm by HSE hospital group

Based on provisional figures acquired from the HSE Business Intelligence Unit, self-harm accounted for 0.87% 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 0.24% in the Children's, to 0.83% in the Saolta University, 0.85% in the University of Limerick, 0.90% in the Ireland East, 0.93% in the RCSI, and 1.04% in the South/ South West and Dublin Midlands hospital groups.

The proportion of self-harm presentations treated in each hospital group in 2017 ranged from 3% in the Children's, 7% in the University of Limerick, to 14% in the Saolta University, 15% in the RCSI, 18% in the Dublin Midlands, 21% in the South/ South West and 23% in the Ireland East hospital group.

The gender balance of recorded episodes in 2017 (at 44% men to 56% women) varied by hospital group (Figure 1). Self-harm presentations by women outnumbered those by men in all but the South/ South West hospital group.

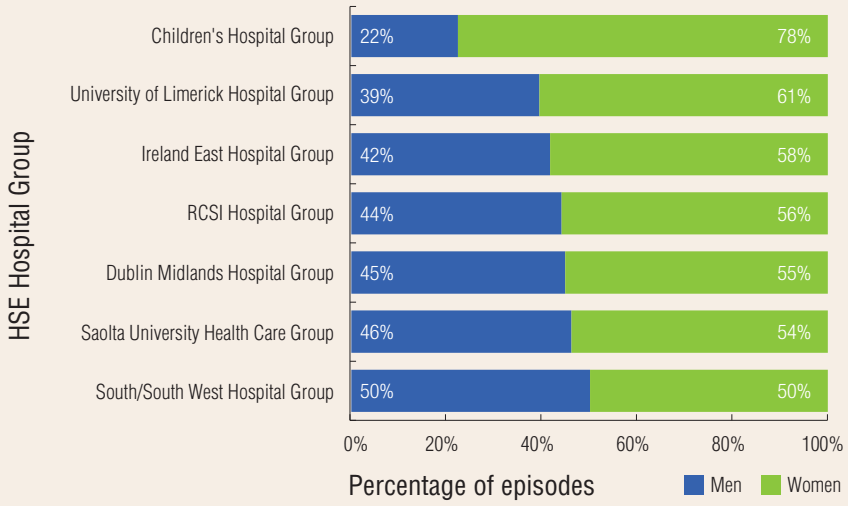


Figure 1: Gender balance of self-harm presentations by HSE hospital group, 2017.

Annual change in self-harm presentations to hospital

While the national number of self-harm presentations to hospital in 2017 was similar to that in 2016, there were some relatively large changes in the number of presentations at the level of the individual hospitals (Figures 2a and 2b). Overall, 15 general hospitals saw an increase in self-harm presentations between 2016 and 2017, while 20 general hospitals saw a decrease during the same period. Overall, the most pronounced changes were in small hospitals, where three hospitals saw decreases of 50% or more.[2]

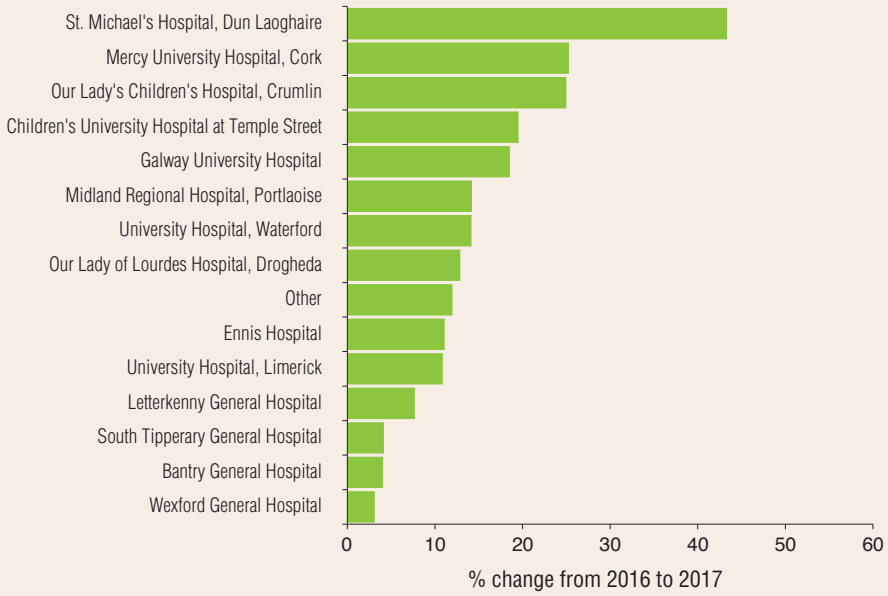
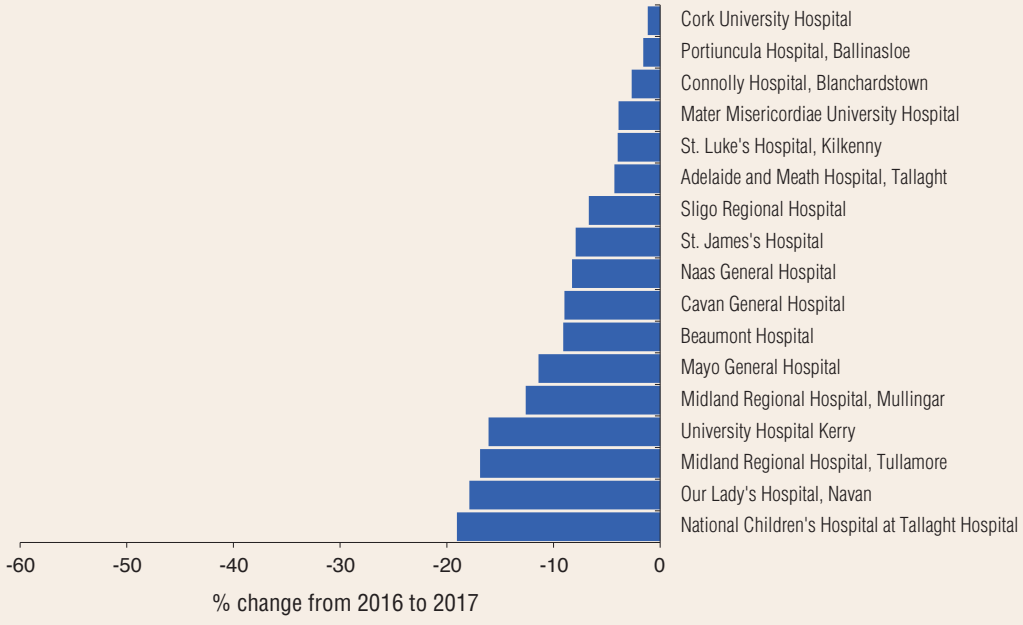


Figure 2a: Hospitals receiving more self-harm presentations in 2017.



Note: This figure excludes three hospitals where the increases were based on small numbers (<5).
Figure 2b: Hospitals receiving fewer self-harm presentations in 2017.

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

Episodes by time of occurrence

Variation by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Men	405	397	419	418	463	402	475	413	398	477	444	433	5144
Women	548	533	590	556	622	526	554	524	505	526	469	503	6456
Total	953	930	1009	974	1085	928	1029	937	903	1003	913	936	11600

Table 2: Number of self-harm presentations in 2017 by month for men and women.

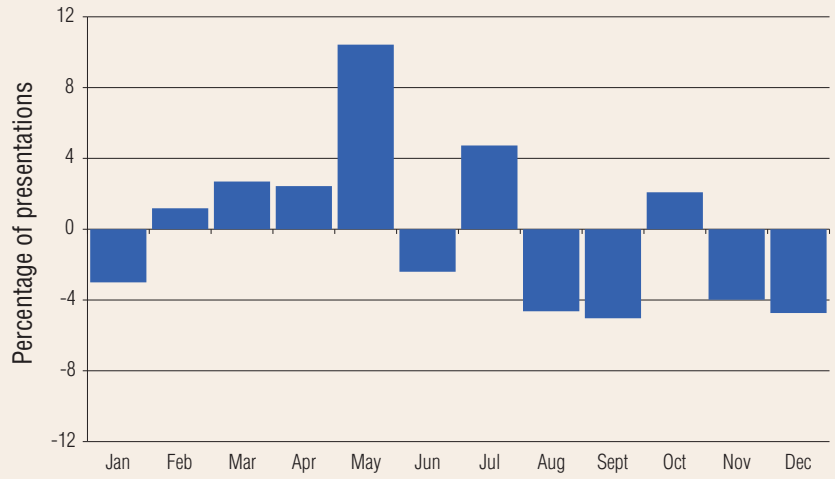


Figure 3: Percentage difference between the observed and expected number of self-harm presentations by month in 2017.

The monthly average number of self-harm presentations to hospitals in 2017 was 967. Figure 3 illustrates the percentage difference between observed and expected number of presentations, accounting for the number of days in each calendar month. In 2017, there were more self-harm presentations than might be expected across a number of months. In particular, May and July recorded 10% and 5% more presentations than might be expected. The end of year fall in presentations was similar to previous years. On average, 5% fewer presentations than might be expected were recorded in August, September, November and December.

Variation by Day

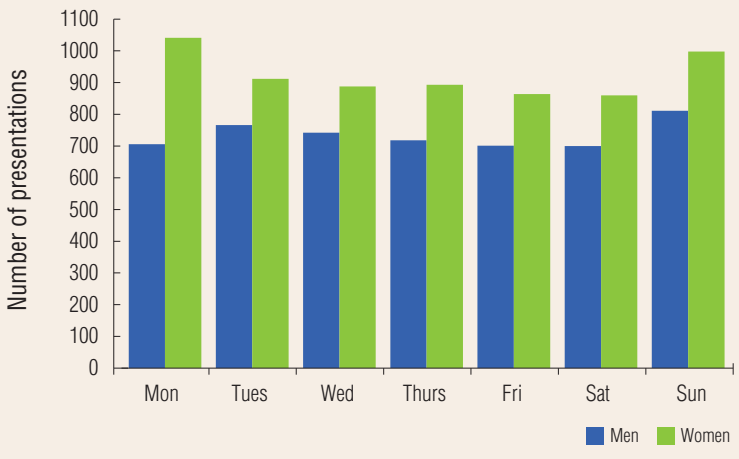


Figure 4: Number of presentations by weekday, 2017.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Men	706	766	742	718	701	700	811	5144
	(13.7%)	(14.9%)	(14.4%)	(14.0%)	(13.6%)	(13.6%)	(15.8%)	(100%)
Women	1041	912	888	893	864	860	998	6456
	(16.1%)	(14.1%)	(13.8%)	(13.8%)	(13.4%)	(13.3%)	(15.5%)	(100%)
Total	1747	1678	1630	1611	1565	1560	1809	11600
	(15.1%)	(14.5%)	(14.1%)	(13.9%)	(13.5%)	(13.4%)	(15.6%)	(100%)

Note: On average, each day would be expected to account for 14.3% of presentations.
Table 3: Self-harm presentations in 2017 by weekday.

As in previous years, the number of self-harm presentations was highest on Mondays, Tuesdays and Sundays. These days accounted for 45% of all presentations. Numbers fell after Tuesday before rising again on Sunday. This pattern in the number of presentations by day of the week was more pronounced for women than men.

During 2017, there was an average of 32 self-harm presentations to hospital each day. There were twelve days in 2017 on which 45 or more self-harm presentations were made, including January 1st, New Year's Day (n=54), March 18th (n=49), May 1st, May Bank Holiday (n=47) and December 27th (n=48). There were nine days in 2017 on which 20 or fewer self-harm presentations were made, including March 17th, St. Patrick's Day (n=16).

Variation by Hour

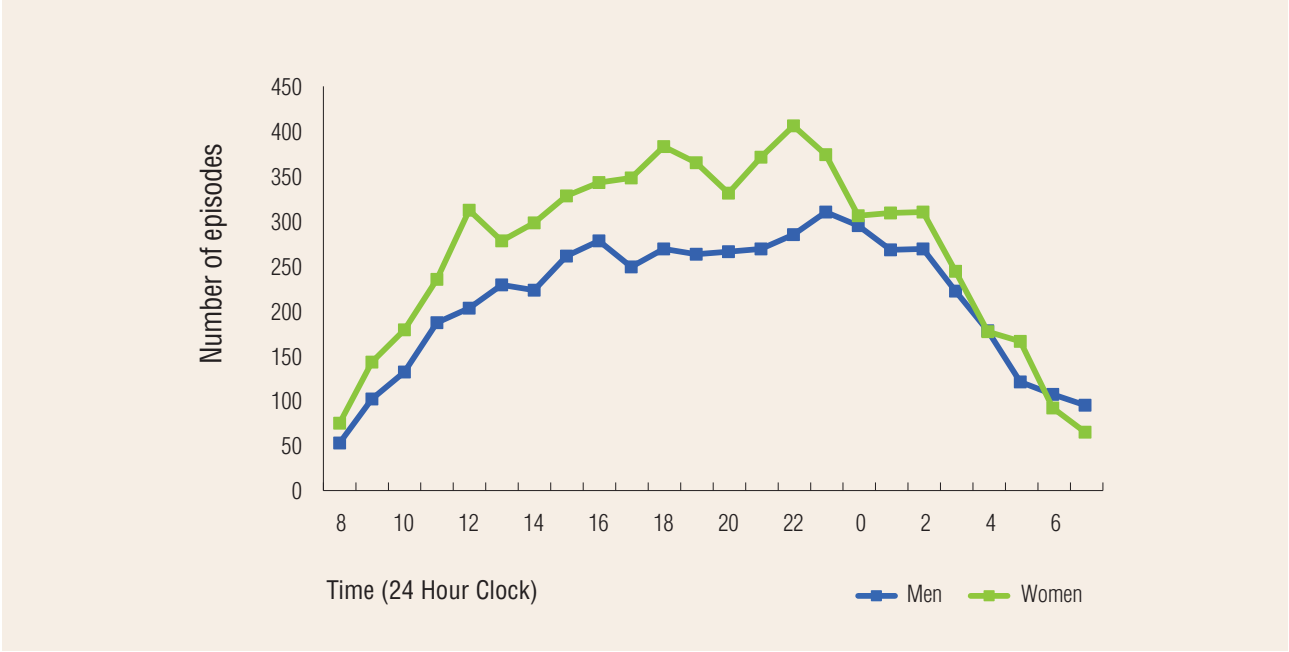


Figure 5: Number of presentations by time of attendance.

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 and for women was 10pm. Almost half (43%) 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 20% of all presentations.

Approximately half (48%) were brought to hospital by ambulance and a further 3% were brought by other emergency services such as An Garda Síochána. The proportion of cases brought to the emergency department by ambulance or other emergency services varied over the course of the day from 41% for presentations between noon and 4pm to 65% for those who presented between midnight and 8am.

Method of self-harm

	Overdose	Alcohol	Poisoning	Hanging	Drowning	Cutting	Other	Total
Men	2990	1703	117	577	213	1494	378	5144
	(58.1%)	(33.1%)	(2.3%)	(11.2%)	(4.1%)	(29.0%)	(7.3%)	(100%)
Women	4541	1868	104	281	154	1681	300	6456
	(70.3%)	(28.9%)	(1.6%)	(4.4%)	(2.4%)	(26.0%)	(4.6%)	(100%)
Total	7531	3571	221	858	367	3175	678	11600
	(64.9%)	(30.8%)	(1.9%)	(7.4%)	(3.2%)	(27.4%)	(5.8%)	(100%)

Table 4: Methods of self-harm involved in presentations to hospital in 2017.

Approximately (65%) of all self-harm presentations involved a drug overdose, and was more commonly used as a method of self-harm by women than by men. It was involved in 58% of male and 70% of female episodes. Alcohol was involved in 31% of all cases. Alcohol was significantly more often involved in male episodes of self-harm than female episodes (33% and 29%, respectively).

Cutting was the only other common method of self-harm, involved in 27% of all episodes. Cutting was more common in men (29%) than in women (26%). In 97% of all cases involving self-cutting, the treatment received was recorded. Almost one quarter (24%) received steristrips or steribonds, 54% did not require any treatment, 18% required sutures while 3% were referred for plastic surgery. Men who cut themselves more often required intensive treatment. Respectively, 21% received sutures and 4% were referred for plastic surgery compared to 16% and 3% of women who cut themselves.

Attempted hanging was involved in 7% of all self-harm presentations (11% for men and 4% for women). At 858, the number of presentations involving attempted hanging was 13% higher than 2016 (+9% for men and +21% for women). Overall, the number of self-harm presentations involving hanging increased between 2007 and 2017 from 444 to 858. While rare as a method of self-harm, the number of presentations involving attempted drowning increased by 12% among women in 2017 (from 137 to 154).

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 – involved in 27% of presentations by boys and 32% of presentations by girls aged under 15 years.

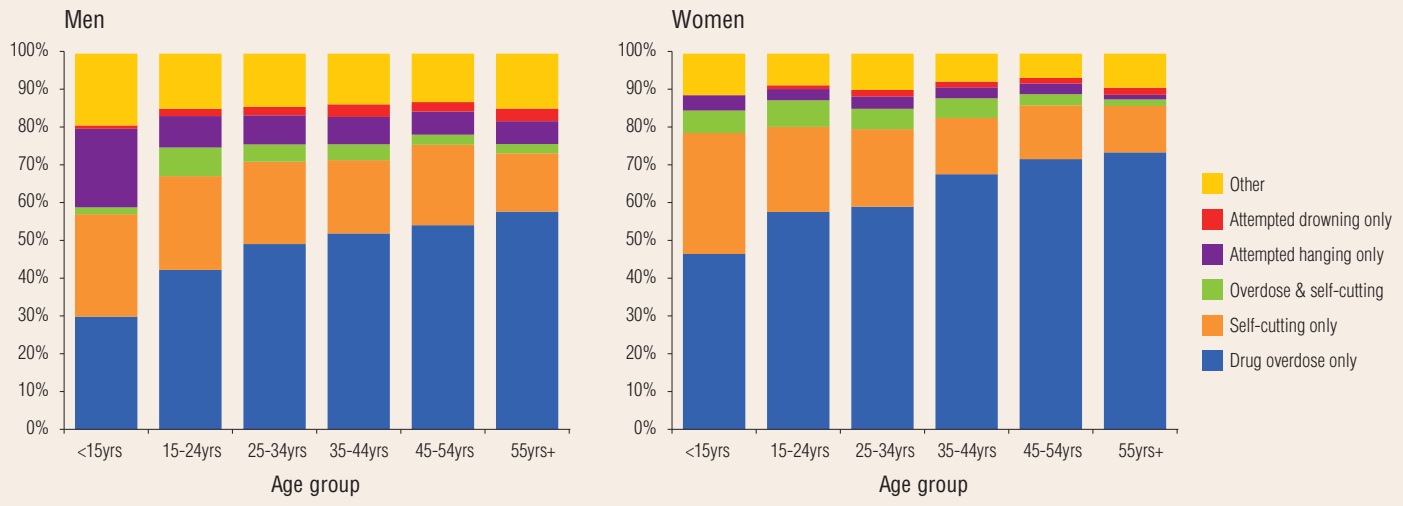


Figure 6: Method of self-harm used by gender and age group, 2017.

Drugs used in overdose

The total number of tablets taken was known in 67% 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 (51%) of female episodes and 46% of male episodes of overdose involved 10-29 tablets.

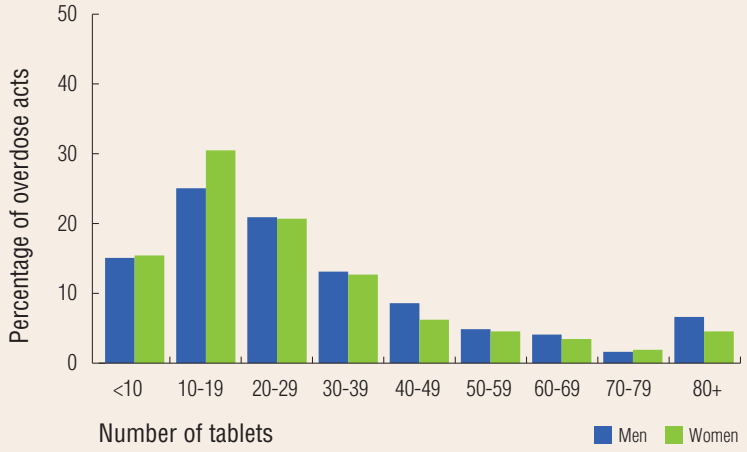
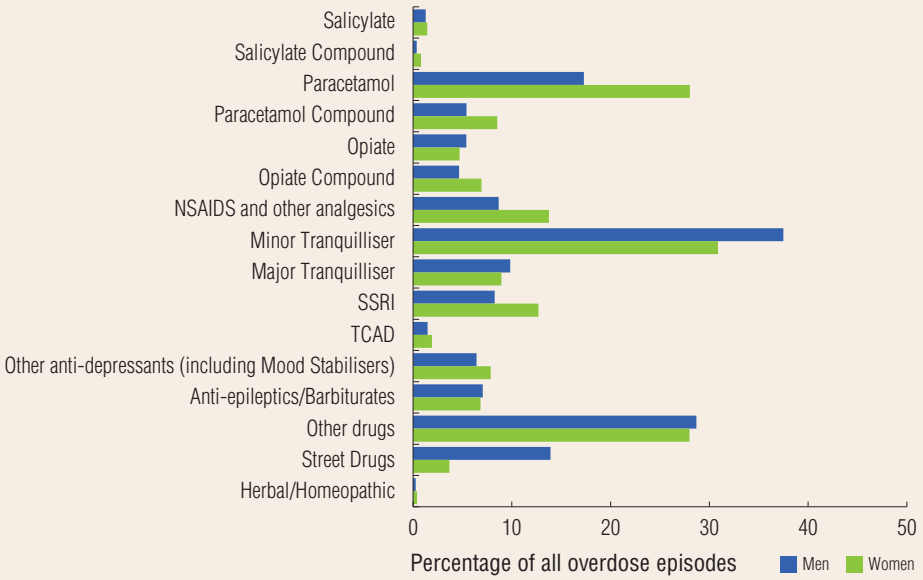


Figure 7: The pattern of the number of tablets taken in drug overdose, by gender.



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 (34%) of all overdoses involved a minor tranquilliser and such a drug was used significantly more often by men than women (37% vs. 31%, respectively). A major tranquilliser was involved in 9% of overdoses. In total, 47% of all female overdose acts and 33% of all male overdose acts involved an analgesic drug. Paracetamol was the most common analgesic drug taken, involved in some form in 29% of drug overdose acts. Paracetamol-containing medication was used significantly more often by women (34%) than by men (22%). One in five overdose acts (19%) 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 14% of male and 4% of female overdose acts. 'Other classified drugs' were taken in more than one quarter (28%) 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 2017 (7,531) was lower than the number recorded in 2016 (7,622). There was some fluctuation in the number of presentations involving each of the drug types described here. Most notably, there were decreases in the number of self-harm presentations involving opiate compound medication (-13%), salicylates (-9%), paracetamol compound medications (-8%), Tricyclic Antidepressants (TCADs) (-5%) and minor tranquillisers (-5%).

In 2017, there was an increase in the number of self-harm presentations to hospital involving street drugs by 7% (from 547 to 583).

Recommended Next Care

Overall, in 12% of 2017 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 32% of cases, irrespective of whether general or psychiatric admission was intended and whether the patient refused or not. Of all self-harm cases, 25% 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 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 2017 were broadly similar for men and women. Men more often left the emergency department before a recommendation was made (15% vs. 10%). Women were more often admitted to a general ward of the treating hospital than men (27% vs. 22%).

	Overdose (n=7531)	Alcohol (n=3571)	Poisoning (n=221)	Hanging (n=858)	Drowning (n=367)	Cutting (n=3175)	Other (n=757)	All (n=11600)
General admission	31.3%	24.4%	35.7%	15.4%	12.5%	12.6%	14.8%	24.8%
Psychiatric admission	5.3%	4.8%	8.6%	16.6%	12.5%	6.6%	12.2%	6.8%
Patient would not allow admission	0.6%	0.6%	2.3%	0.9%	0.3%	0.6%	0.7%	0.6%
Left before recommendation	11.4%	16.9%	8.1%	7.9%	10.1%	14.4%	9.6%	12.0%
Discharged from emergency department	51.5%	53.3%	45.2%	59.2%	64.6%	65.8%	62.7%	55.9%

Table 5: Recommended next care in 2017 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 self-poisoning and drug overdose, 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, 66% 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.

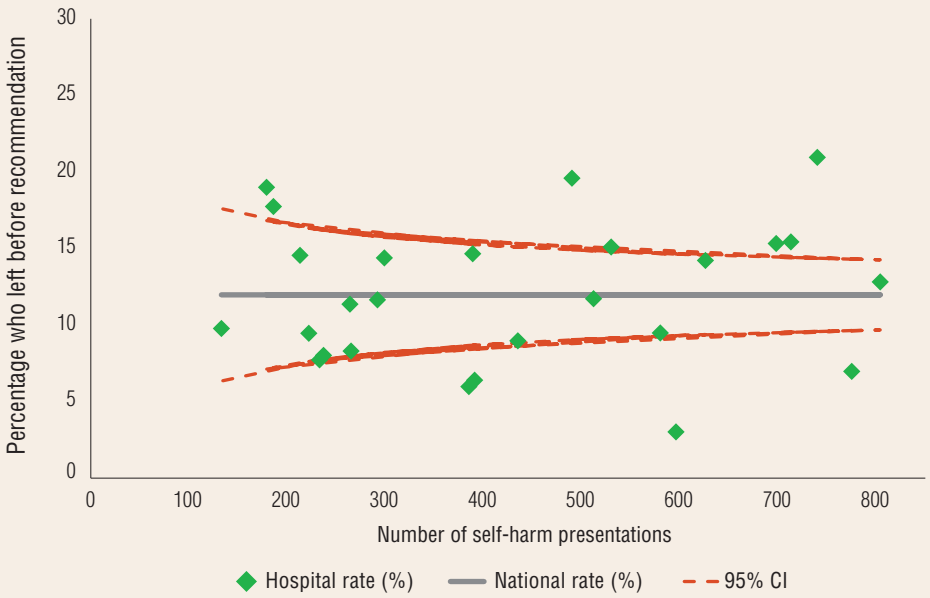
Next care varied significantly by HSE hospital group (Table 6). The proportion of self-harm patients who left before a recommendation was made varied from 1% in the Children's hospital group, to 15% in the RCSI hospital group. Across the hospital groups, inpatient care (irrespective of type and whether patient refused) was recommended for 15% 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, 34% in the RCSI, 40% in the Saolta University and 69% in the Children's hospital groups. As a corollary to this, the proportion of cases discharged following emergency treatment ranged from a low of 30% 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=2611)	(n=2065)	(n=1745)	(n=2386)	(n=816)	(n=1673)	(n=304)	(n=11600)
General admission	24.5%	23.7%	27.3%	24.7%	9.7%	23.2%	69.1%	24.8%
Psychiatric admission	2.9%	6.8%	6.2%	7.3%	5.1%	14.7%	0%	6.8%
Patient would not allow admission	0.8%	0.4%	0.5%	0.2%	0%	1.7%	0.3%	0.6%
Left before recommendation	12.3%	12.3%	15.3%	10.6%	13.0%	11.0%	1.0%	12.0%
Discharged from emergency department	59.6%	56.7%	50.7%	57.3%	72.2%	49.4%	29.6%	55.9%

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 this table may be underestimates.
Table 6: Recommended next care in 2017 by HSE hospital group.

In 2017, 12% of patients left the emergency department before a recommendation could be made. The funnel plot in Figure 9 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 ten 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 9: Funnel plot of the proportion leaving before recommendation, according to hospital, 2017.

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=6,484).

- In 35% 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 (9% for psychiatric treatment and 2% for medical treatment).
- Other services (e.g. psychological services, community-based mental health teams and addiction services) were recommended in 16% of episodes.
- Approximately one in five (20%) of patients discharged from the emergency department were discharged home without a referral.

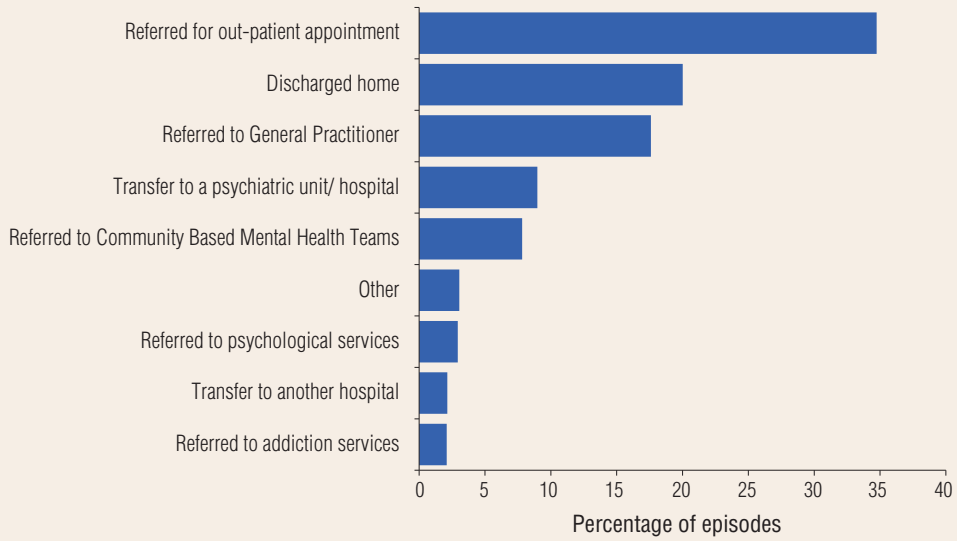


Figure 10: Referral of self-harm patients in 2017 following discharge from the emergency department.

Referrals offered to self-harm patients varied according to HSE hospital group, with 77% of patients in the Children's hospital group referred for an out-patient appointment compared with 20% in the South/ South West group. Referrals to community-based mental health teams were highest in the Saolta University group (26%), with referrals to general practitioners highest in the Ireland East group (24%).

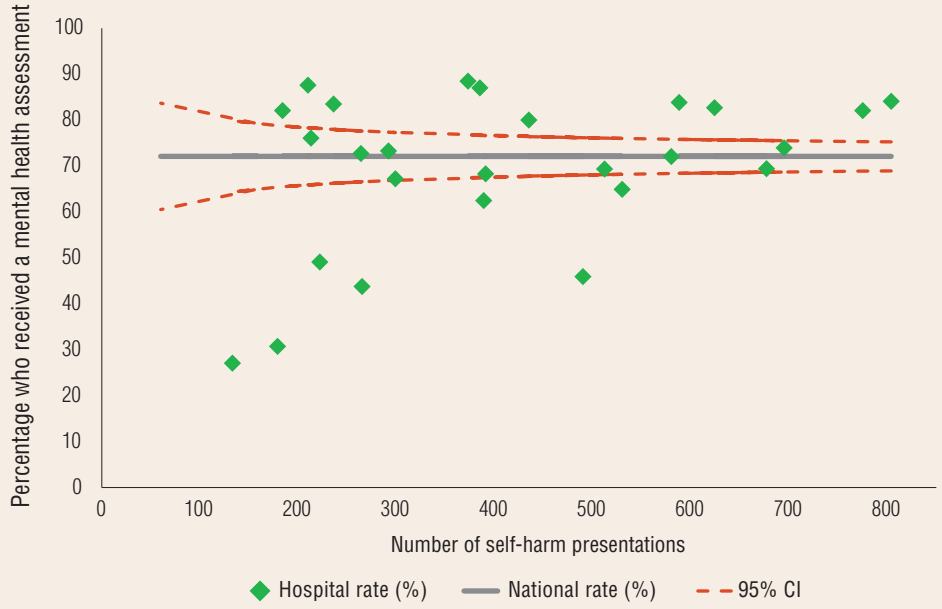
Mental health assessment

Whether the patient had a mental health assessment in the presenting hospital was known in 96% of all cases. Of those known, 72% (n=8,039) of patients were assessed by a member of the mental health team (73% for women, 71% for men). Assessment was most common following attempted hanging (82%) and attempted drowning (81%). Those with alcohol on board or with self-cutting were less likely to receive an assessment (68% and 70%, respectively). A minority (4%) of patients refused a mental health assessment at the time of presentation (n=411).

More than three-quarters (82%) of those not admitted to the presenting hospital received a mental health assessment prior to discharge. However, only 11% 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 2017, almost three-quarters (73%) of first presentations of self-harm were assessed, compared with 62% of those with 5 or more presentations.

The funnel plot in Figure 11 illustrates the proportion of attendances receiving a mental health assessment for each hospital. The majority of hospitals 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 11: Funnel plot of the proportion receiving a mental health assessment, according to hospital, 2017

Repetition of self-harm

There were 9,103 individuals treated for 11,600 self-harm episodes in 2017. This implies that more than one in five (2,497, 21.5%) of the presentations in 2017 were due to repeat acts, which is similar to the years 2003-2009 and 2013-2016 (range: 20.5-23.1%). Of the 9,103 self-harm patients treated, 1,322 (14.5%) made at least one repeat presentation to hospital during the calendar year. This proportion is within the range reported for the years 2003-2016 (13.3-16.4%). At least five self-harm presentations were made by 139 individuals. They accounted for just 1.5% of all self-harm patients in the year but their presentations represented 9.0% (n=1,043) 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 (17.8%) 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 treated	6029	2791	181	716	287	2264	505	9103
Number who repeated	846	423	19	89	41	403	85	1322
Percentage who repeated	14.0%	15.2%	10.5%	12.4%	14.3%	17.8%	16.8%	14.5%

Table 7: Repeat presentation after index self-harm presentation in 2017 by methods of self-harm.

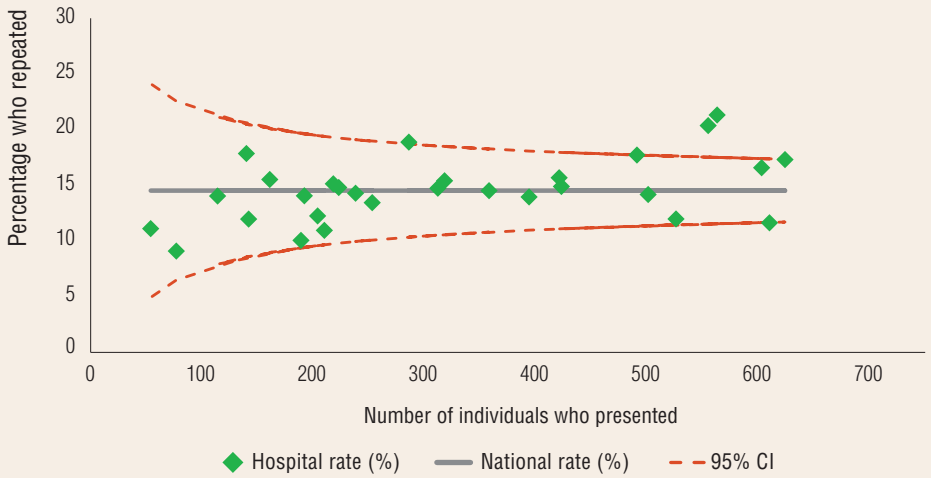
The rate of repetition was broadly similar in men and women (14.0% vs. 14.9%). Repetition varied significantly by age. Approximately 13% of self-harm patients aged less than 20 years re-presented with self-harm. The proportion who repeated was highest, at 17%, for 25-34 year-olds.

There was little variation in repetition rates when examined by HSE hospital group (Table 8). The lowest rate was among self-harm patients treated in the Children's and South/ South West hospital groups (10.7% and 12.3% respectively), with repetition rates ranging from 14.0%-17.9% 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 treated	Men	870	743	630	1002	259	637	64	4107
	Women	1139	927	786	978	368	725	208	4996
	TOTAL	2009	1670	1416	1980	627	1362	272	9103
Number who repeated	Men	141	116	86	122	42	97	6	576
	Women	219	152	112	122	67	106	23	746
	TOTAL	360	268	198	244	109	203	29	1322
Percentage who repeated	Men	16.2%	15.6%	13.7%	12.2%	16.2%	15.2%	9.4%	14.0%
	Women	19.2%	16.4%	14.2%	12.5%	18.2%	14.6%	11.1%	14.9%
	TOTAL	17.9%	16.0%	14.0%	12.3%	17.4%	14.9%	10.7%	14.5%

Table 8: Repetition in 2017 by gender and HSE hospital group.

The funnel plot in Figure 12 illustrates the rate of repetition for each hospital. The average rate of repetition nationally was 14.5%. For the majority of hospitals, the rate of repetition was similar to the national rate, suggesting little variation in the rate of repetition across hospitals.



Note: Due to small numbers, data for Local Injury Units have been excluded.
Figure 12: Funnel plot of the rate of repetition according to hospital, 2017.

Appendix 3 details the repetition rate by hospital for male, female and all patients treated 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 8,748 self-harm presentations were made to hospital emergency departments in the first nine months of 2017. For 18.0% of these (n=1,572) there was a repeat self-harm presentation made within three months (91 days). This proportion varied significantly by HSE hospital group: Children's (8.4%), South/ South West (14.4%), Saolta University (15.1%), RCSI (18.3%), Dublin Midlands (18.6%), University of Limerick (20.7%) and Ireland East (22.4%).

This proportion of self-harm presentations followed by a repeat presentation within three months was higher for women (18.9%) than men (16.8%) and varied according to age. The proportion was lowest among those aged under 15 years (6.9%) and over 55 years (12.4%), compared with 16.0% among 15-24 year-olds and 20.8% 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 (9.2% following an attempted hanging, 12.0% following an attempted drowning, 15.7% following a drug overdose, 24.7% following an act of self-cutting only and 25.7% 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 (15.0%), compared to 17.6% of those who were discharged from the emergency department, 17.9% who were admitted to a psychiatric ward and 26.3% 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 (11.2%) first presentations in January-September 2017 were followed by a repeat presentation in the next three months. This proportion was 33.2% following second presentations, 46.3% following third presentations, 61.1% following fourth presentations and 78.4% following fifth or subsequent presentations.

SECTION II:

Incidence Rates

For the period from 1 January to 31 December 2017, the Registry recorded 11,600 self-harm presentations to hospital that were made by 9,103 individuals. Based on these data, the Irish person-based crude and age-standardised rate of self-harm in 2017 was 190 (95% CI: 186 to 194) and 199 (95% CI: 195 to 203) per 100,000, respectively. Thus, there was a 3% decrease in the age-standardised rate in 2017, which accounts for the changing age distribution of the population, from 2016 (205 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	181	-2%	218	-4%	199	-3%

Table 9: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2002-2017 (extrapolated data used for 2002-2005 to adjust for non-participating hospitals).

*Figures for 2016 have been updated to include an additional 40 cases which were late registered.

The rate in 2017 is 11% lower than the peak rate of 223 per 100,000 reported for 2010. However, the rate in 2017 was still 6% higher than in 2007, the year before the economic recession.

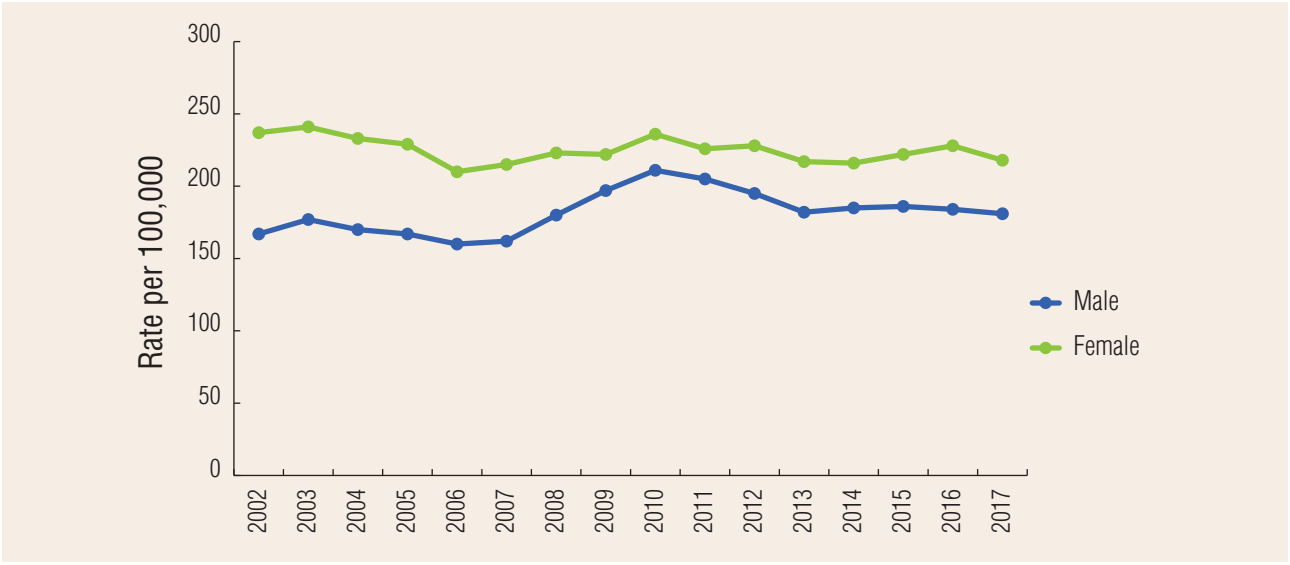


Figure 13: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland by gender, 2002-2017.

Population figures and the number and rate of persons treated in hospital following self-harm in 2017 are given in Appendix 4.

Variation by gender and age

The person-based age-standardised rate of self-harm for men and women in 2017 was 181 (95% CI: 175-186) and 218 (95% CI: 213-224) per 100,000, respectively. Thus, there was a 2% decrease in the male rate of self-harm from 2016, which was not statistically significant. There was a significant decrease in the female rate of self-harm (-4%). Taking recent years into account, the male self-harm rate in 2017 was 12% higher than in 2007 whereas the female rate was 1% higher.

The female rate of self-harm in 2017 was 21% 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, 24% higher in 2008, and 10-19% higher in 2009-2015.

There was a striking pattern in the incidence of self-harm when examined by age. The rate was highest among the young. At 758 per 100,000, the peak rate for women was among 15-19 year-olds. This rate implies that one in every 132 girls in this age group presented to hospital in 2017 as a consequence of self-harm. The peak rate for men was 505 per 100,000 among 20-24 year-olds or one in every 198 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 216 per 100,000, across the 30 to 54 year age range.

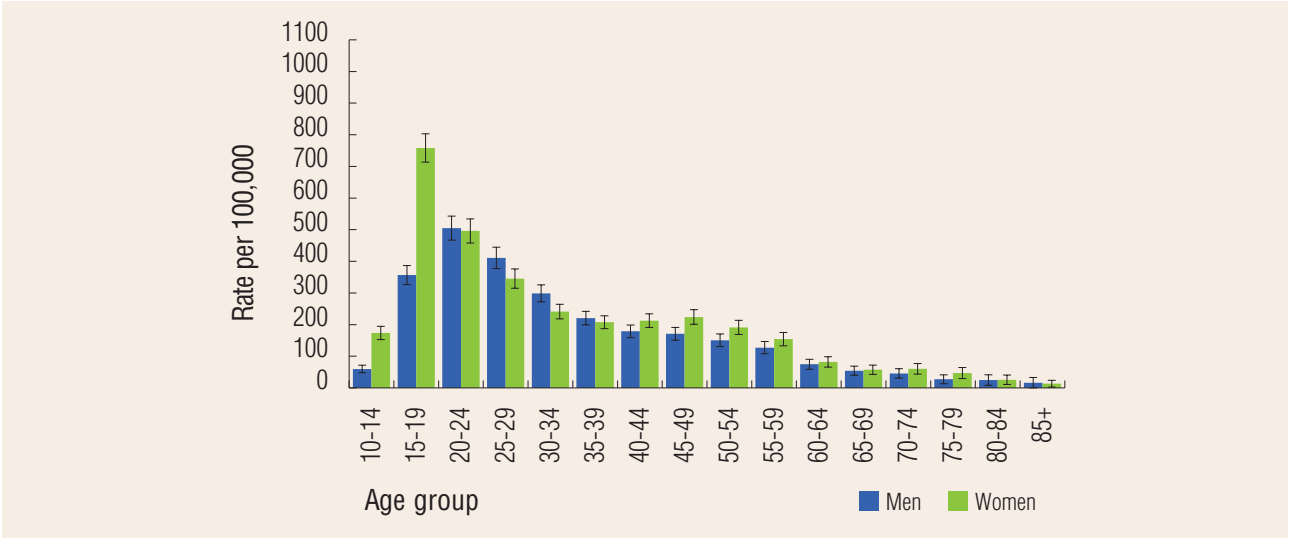


Figure 14: Person-based rate of self-harm in the Republic of Ireland in 2017 by age and gender.

Gender differences in the incidence of self-harm varied with age. The female rate was 1.9 times higher than the male rate in 10-14 year-olds (174 vs. 60 per 100,000) and 1.1 times higher in 15-19 year-olds (758 vs. 357 per 100,000), respectively. The female rate of self-harm was again higher than the male rate across the 40-54 year age range. However, the male rate was 19% higher than the female rate in 25-29 year-olds (411 vs. 345 per 100,000) and 24% higher in 30-34 year-olds (299 vs. 241 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 2017, the only significant change in the rate of hospital-treated self-harm by age from 2016 was among women aged 20-24 years, where the rate decreased by 15% from 583 to 496 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 15. In 12-19 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 17 year-old women and 20 year-old men, with rates of 875 and 577 per 100,000, respectively.

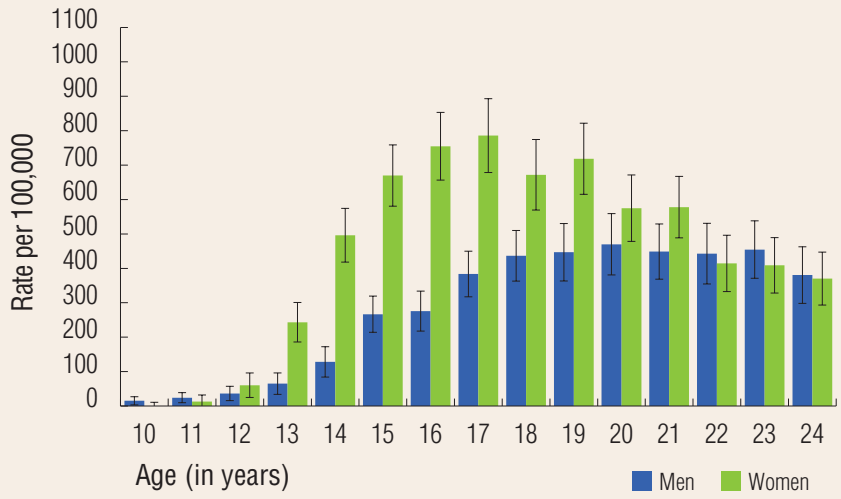


Figure 15: Person-based rate of self-harm in the Republic of Ireland in 2017 by single year of age for 10-24 year-olds.

Self-harm by region

Rate 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 99 per 100,000 for Limerick County to 430 per 100,000 for Cork City. The lowest female rates were recorded for Limerick County (151 per 100,000) with the highest rates recorded for Limerick City residents at 446 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 Donegal, Tipperary South, Carlow, Kerry and Louth and for women living in Tipperary South, Carlow, Roscommon and Laois. In 2017 high rates for both men and women were seen in Cork City, where the male rate was 1.4 times higher than the national average and the female rate was 50% 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 21%. The magnitude of this gender difference varied by city/county. The female rate far exceeded the male rate in Leitrim (+96%), Fingal (+81%) and Roscommon (+80%). The opposite pattern of a significantly lower female rate was observed in Cork City (-24%), Kerry (-16%), Sligo (-12%) and Cavan (-11%).

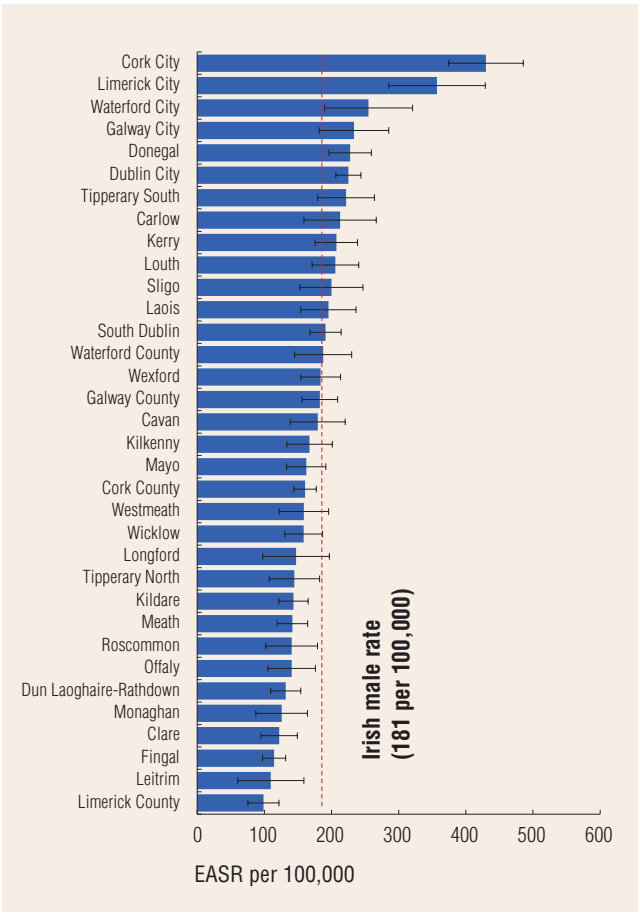


Figure 16a: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2017 by city/county of residence for men.

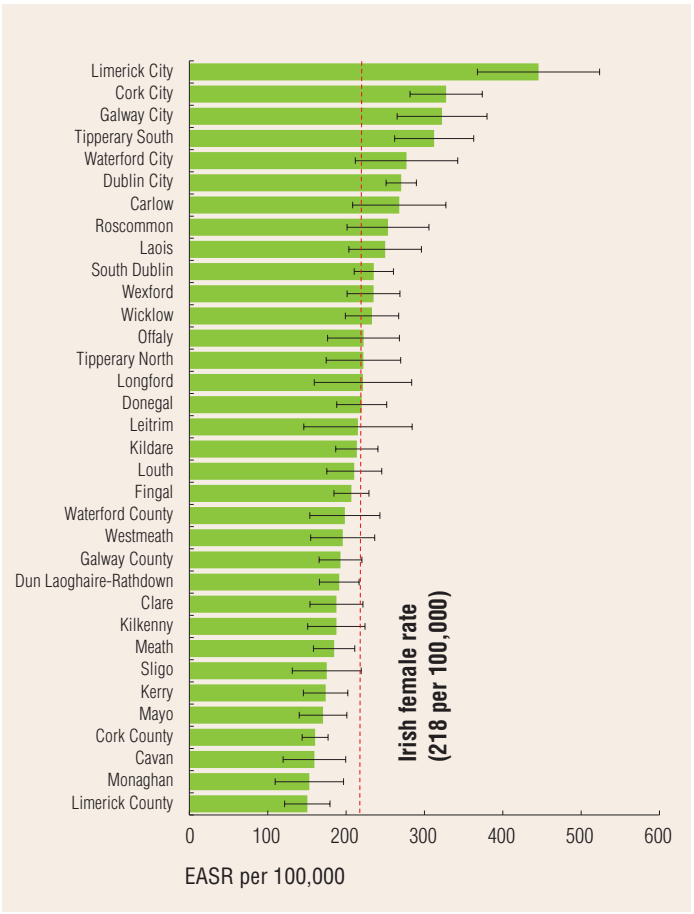
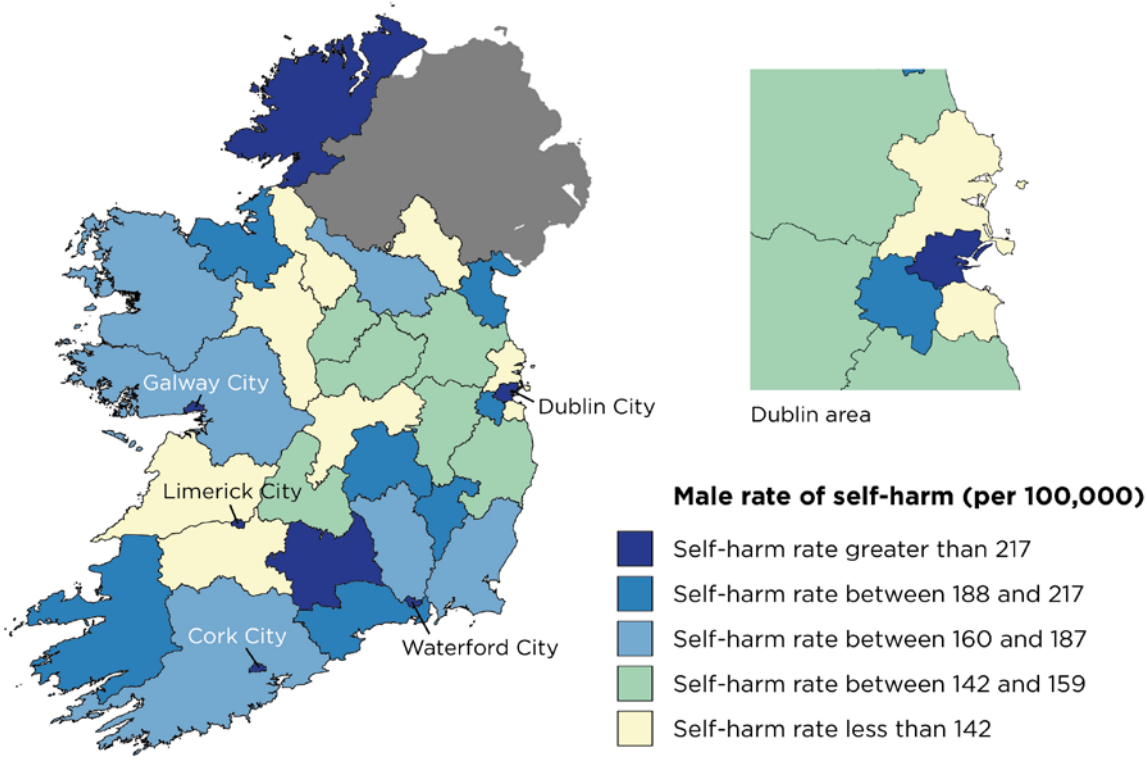
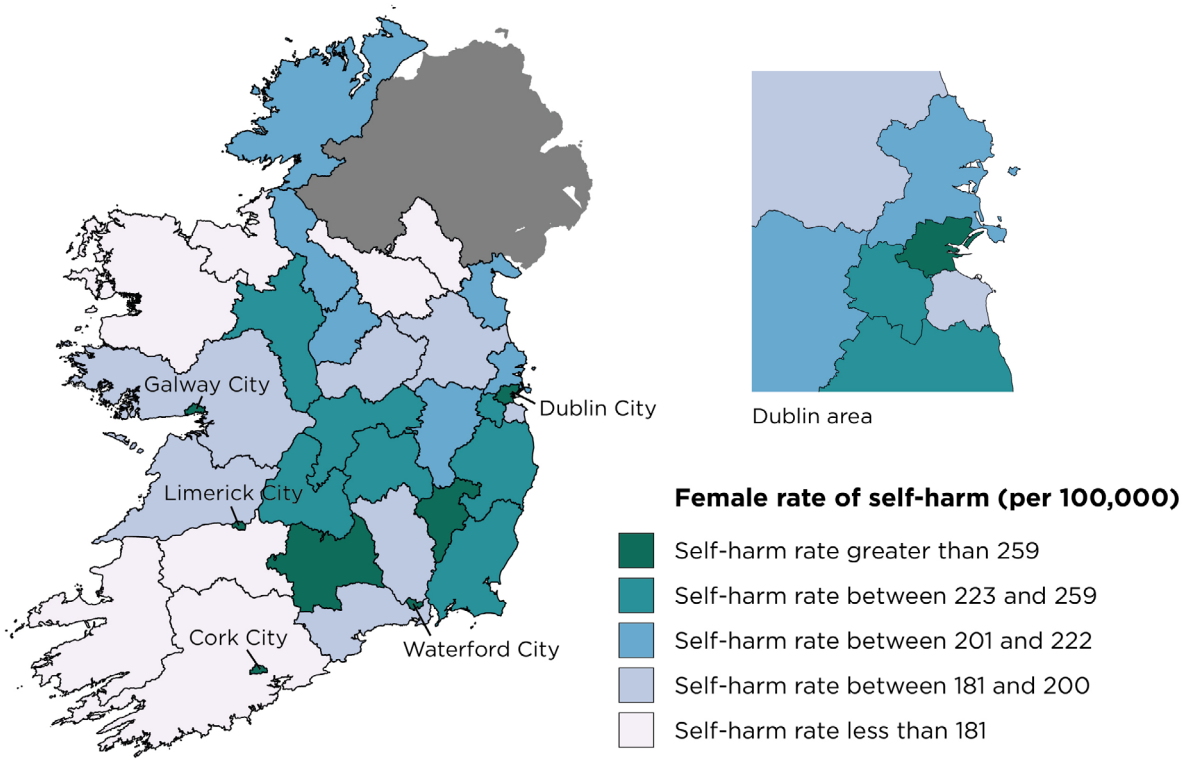


Figure 16b: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2017 by city/county of residence for women.



Map 1: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2017 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 2017 by city/ county of residence for women.

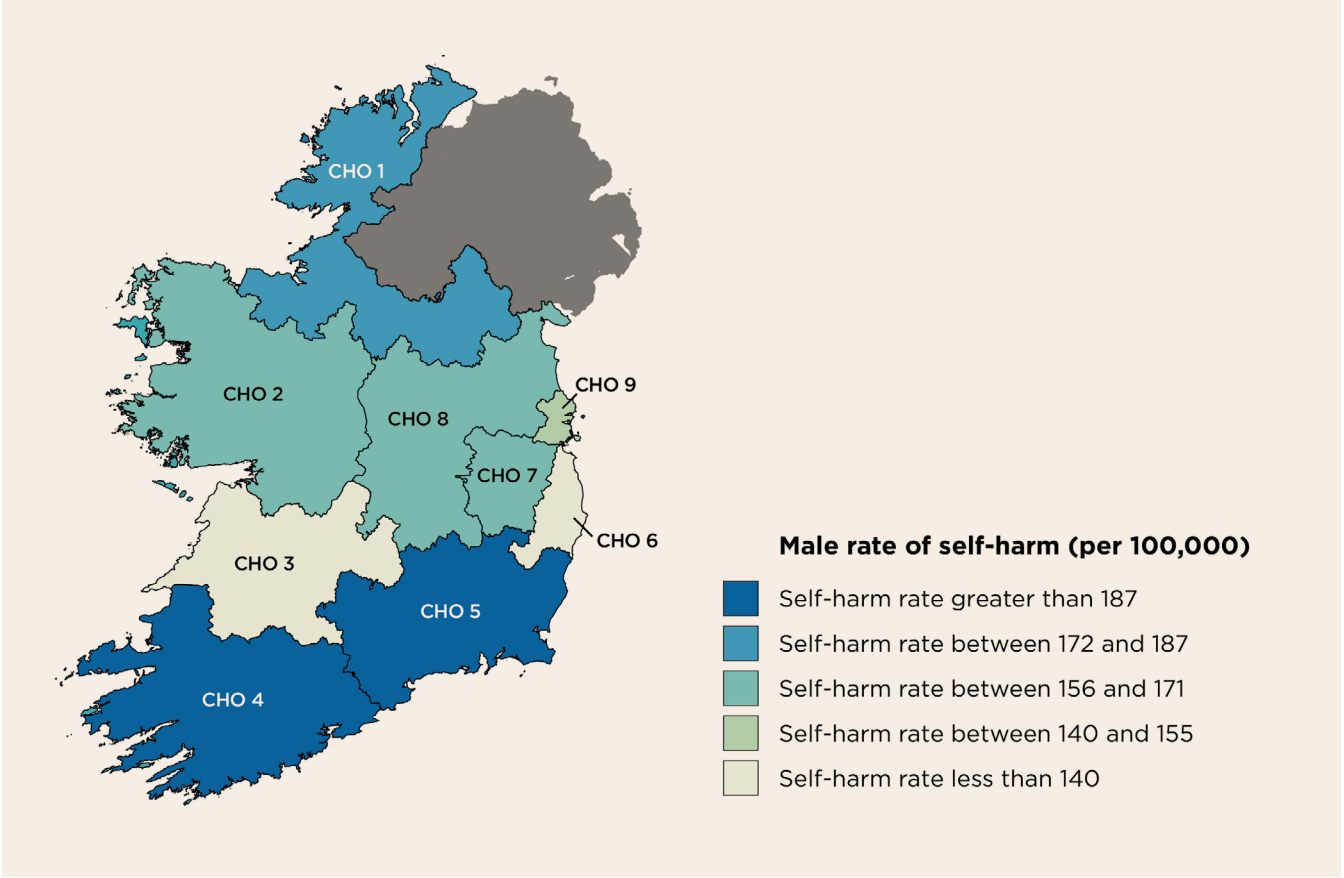
Compared to 2016, significant increases in the female rate of self-harm were observed in Tipperary South (+43%) and Laois (+42%), with significant decreases observed in Leitrim (-42%) and Cavan (-33%). There were no significant changes in the male rate of self-harm by city/ county.

Rate by HSE Community Healthcare Organisation (CHO)

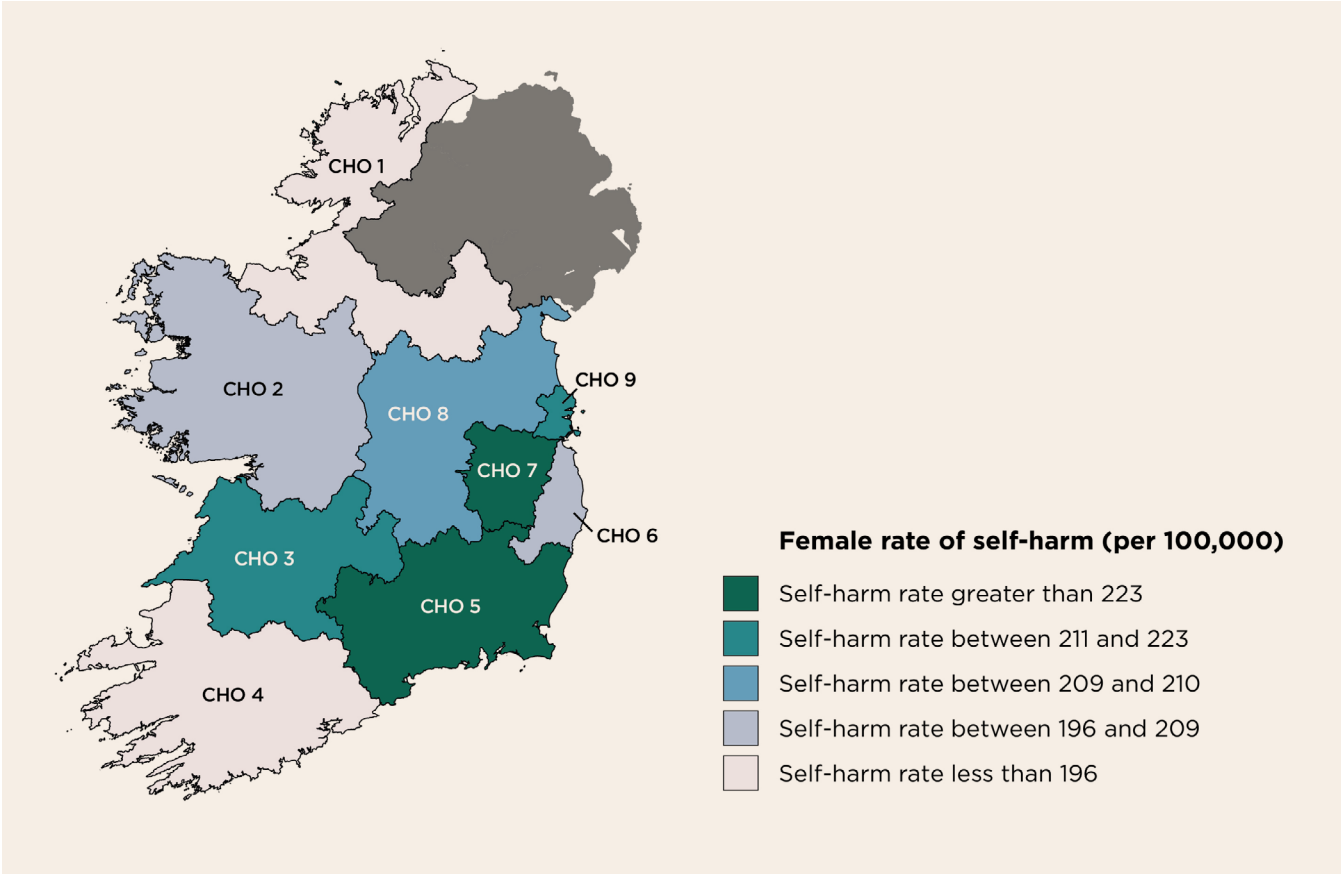
In 2017, the incidence of self-harm was highest, at 221 per 100,000 in CHO Area 5 (South Tipperary, Carlow/ Kilkenny, Waterford and Wexford) and lowest in CHO Area 6 (Wicklow, Dun Laoghaire and Dublin South East) at 162 per 100,000. The male rate of self-harm varied from 124 per 100,000 in CHO Area 6 to 204 per 100,000 in CHO Area 4 (Kerry and Cork). The female rate of self-harm varied from 189 per 100,000 in CHO Area 4 to 246 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	326	187	(+/-18)	197686	348	190	(+/-19)	394333	674	187	(+/-13)
CHO Area 2	225087	331	160	(+/-16)	228022	438	208	(+/-18)	453109	769	184	(+/-12)
CHO Area 3	191641	249	139	(+/-16)	193357	383	211	(+/-20)	384998	632	175	(+/-13)
CHO Area 4	341730	659	204	(+/-15)	348845	612	189	(+/-14)	690575	1271	196	(+/-10)
CHO Area 5	253523	449	198	(+/-17)	256810	573	246	(+/-19)	510333	1022	221	(+/-13)
CHO Area 6	187477	230	124	(+/-16)	200684	378	200	(+/-19)	388161	608	162	(+/-13)
CHO Area 7	346715	594	169	(+/-14)	356007	792	228	(+/-16)	702722	1386	198	(+/-11)
CHO Area 8	306727	454	160	(+/-14)	309502	602	209	(+/-16)	616229	1056	184	(+/-11)
CHO Area 9	304881	475	153	(+/-14)	316524	661	220	(+/-16)	621405	1136	186	(+/-11)

Table 10: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2017 by HSE Community Healthcare Organisation (CHO) area of residence and gender.



Map 3: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland in 2017 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 2017 by HSE Community Healthcare Organisation (CHO) for women.

Rate by HSE Local Health Office (LHO)

For 2017, 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 107 per 100,000 in Tipperary North/ East Limerick to 234 per 100,000 in Cork North Lee and for women ranged from 133 per 100,000 in West Cork to 308 per 100,000 in South Tipperary.

Table 11: Self-harm in 2017 by HSE Local Health Office (LHO) area of residence and gender.

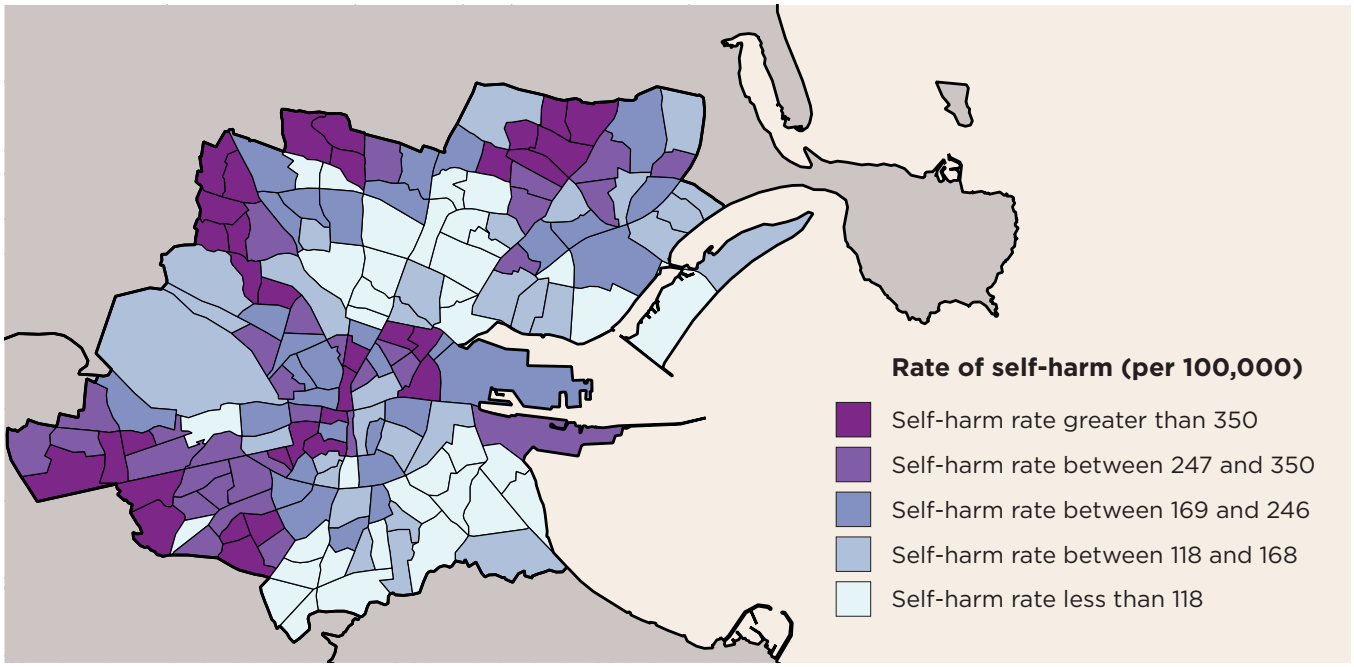
HSE Region and LHO		MEN				WOMEN			
			SELF-HARM				SELF-HARM		
		Population*	Persons	Rate**	Rank	Population*	Persons	Rate**	Rank
DUBLIN MID LEINSTER	Dublin South City	71533	99	123	28	73410	129	170	27
	Dublin South East	62054	74	120	29	66642	110	169	28
	Dublin South West	78334	175	226	2	82564	229	297	2
	Dublin West	76727	157	208	6	78616	188	246	7
	Kildare/West Wicklow	120121	163	145	23	121417	246	211	16
	Laois/Offaly	81649	120	159	20	81009	176	238	9
	Longford/Westmeath	64669	90	148	22	64974	125	206	19
	Dun Laoghaire	64842	73	118	30	71232	127	194	20
	Wicklow	60581	83	155	21	62810	141	246	6
DUBLIN NORTH EAST	Cavan/Monaghan	68535	99	161	18	67859	102	159	30
	Dublin North	126283	170	144	24	132869	278	229	11
	Dublin North Central	72256	126	168	13	73715	154	207	18
	Dublin North West	106342	179	160	19	109940	229	220	13
	Louth	63633	121	202	8	65251	129	208	17
	Meath	96776	123	142	25	98268	172	187	21
SOUTH	Carlow/Kilkenny	67879	122	197	10	68204	137	221	12
	Cork North	46260	63	161	17	46466	56	138	31
	Cork North Lee	95758	217	234	1	96348	233	261	3
	Cork South Lee	98048	213	213	5	102936	178	174	25
	Cork West	28609	35	131	26	28443	33	133	32
	Kerry	73055	131	204	7	74652	112	173	26
	Tipperary South	46979	91	219	4	46932	130	308	1
	Waterford	64943	117	201	9	65674	139	237	10
	Wexford	73722	119	182	11	76000	167	240	8
WEST	Clare	58785	60	115	31	60032	98	177	24
	Donegal	79022	155	225	3	80170	163	219	15
	Galway	127663	207	167	14	130395	273	220	14
	Limerick	77864	133	179	12	78447	187	254	4
	Mayo	65047	90	163	16	65460	96	166	29
	Tipperary North/East Limerick	54992	56	107	32	54878	98	185	23
	Roscommon	32377	34	125	27	32167	69	247	5
	Sligo/Leitrim/West Cavan	49090	72	164	15	49657	83	186	22

*Population derived by the National Census 2016

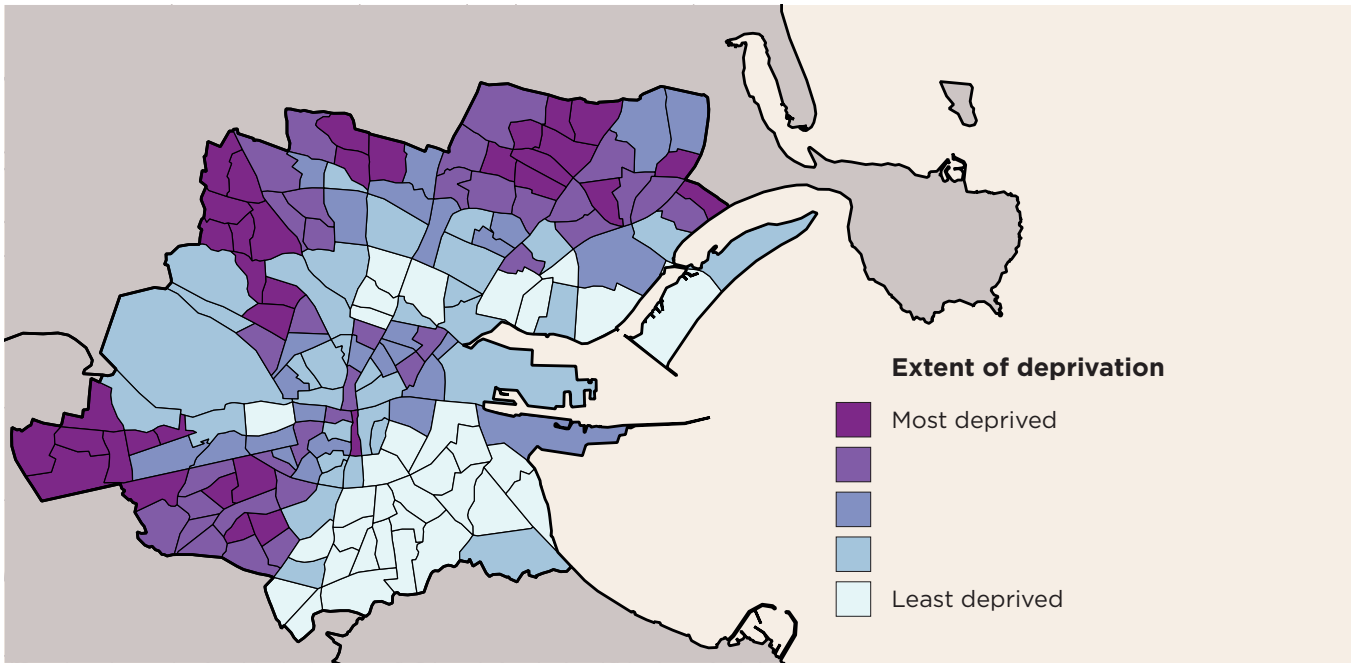
**Person-based European age-standardised rate per 100,000 population

Rate of self-harm in Dublin City, 2015-2017

Maps 5 and 6 illustrate the variation in the incidence of self-harm in Dublin City electoral division areas, for the period 2015-2017. Deprivation scores, as measured by the 2016 Pobal HP Deprivation Index for Small Areas, are also shown. These maps clearly show the strong association between rates of self-harm and area-level deprivation, with the highest rates recorded in the most deprived areas in Dublin City.



Map 5: Person-based European age-standardised rate (EASR) of self-harm in the Republic of Ireland for 2015-2017 (pooled) by Dublin City Electoral Division.



Map 6: Deprivation scores (measured by the 2016 Pobal HP Deprivation Index for small areas) by Dublin City Electoral Division.

Appendices

APPENDIX I:

APPENDIX 1: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE REPUBLIC OF IRELAND BY HOSPITALS GROUP, 2017

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	<5	<5	<5	0	0	0	0	0	<5	<5	<5	5
10-14yrs	8	34	<5	12	7	14	24	42	<5	23	18	42	43	145	106	312
15-19yrs	132	258	113	228	92	210	150	267	58	102	92	217	23	88	660	1370
20-24yrs	177	211	157	165	142	120	246	221	50	67	133	117	0	0	905	901
25-29yrs	197	178	132	133	123	117	164	135	43	64	95	91	0	0	754	718
30-34yrs	140	175	148	110	96	105	122	94	48	44	99	82	0	0	653	610
35-39yrs	122	130	101	122	70	91	125	93	30	53	95	76	0	0	543	565
40-44yrs	87	125	84	94	53	88	86	95	18	38	78	80	0	0	406	520
45-49yrs	93	169	58	87	65	81	78	81	21	38	68	71	0	0	383	527
50-54yrs	57	80	50	70	57	62	73	68	12	27	36	46	0	0	285	353
55-59yrs	39	81	32	61	37	41	60	37	15	16	37	35	0	0	220	271
60-64yrs	11	27	21	30	14	16	25	20	11	12	14	17	0	0	96	122
65-69yrs	12	22	15	15	8	8	16	15	5	<5	<5	11	0	0	59	73
70-74yrs	11	19	7	5	<5	16	12	11	7	<5	<5	<5	0	0	42	59
75-79yrs	<5	7	0	<5	0	<5	9	11	<5	<5	<5	5	0	0	15	31
80-84yrs	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	0	0	9	13
85yrs+	0	<5	<5	0	<5	<5	<5	0	0	<5	0	<5	0	0	<5	6
Total	1089	1522	927	1138	770	975	1195	1191	322	494	773	900	68	236	5144	6456

APPENDIX 1A: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE HSE IRELAND EAST HOSPITAL GROUP, 2017

	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	<5	<5	16	0	<5	0	0	13	11	0	0	<5	12	5	21
16-17yrs	21	23	<5	9	<5	<5	0	0	8	11	<5	<5	10	55	<5	16
18-24yrs	63	79	14	31	12	33	0	<5	50	53	<5	5	86	93	16	26
25-34yrs	121	138	22	26	18	20	<5	0	55	44	5	6	85	92	30	27
35-44yrs	82	78	13	16	10	31	0	0	17	31	8	<5	64	67	15	29
45-54yrs	47	44	20	24	7	25	0	<5	19	42	0	7	44	75	13	31
55-64yrs	9	19	<5	15	5	5	0	0	11	16	0	<5	15	37	7	14
65yrs+	7	8	<5	5	<5	<5	0	0	<5	0	0	<5	9	30	<5	6
Total	350	390	80	142	56	123	<5	<5	177	208	17	26	314	461	94	170

APPENDIX 1B: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE HSE DUBLIN MIDLANDS HOSPITAL GROUP, 2017

	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	<5	<5	7	17	<5	6	0	<5	0	0
16-17yrs	13	43	7	16	<5	9	11	20	12	16
18-24yrs	87	70	25	33	8	17	39	61	62	94
25-34yrs	67	68	29	28	25	17	56	36	103	94
35-44yrs	48	58	21	25	9	16	31	51	76	66
45-54yrs	20	44	14	22	<5	13	14	23	56	55
55-64yrs	12	36	6	10	<5	<5	8	24	26	19
65yrs+	7	<5	<5	<5	<5	<5	5	9	9	10
Total	255	325	113	152	51	82	164	225	344	354

APPENDIX 1C: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE HSE RCSI HOSPITAL GROUP, 2017

	BEAUMONT HOSPITAL		CAVAN GENERAL HOSPITAL		CONNOLLY HOSPITAL, BLANCHARDSTOWN		OUR LADY OF LOURDES HOSPITAL, DROGHEDA	
	Male	Female	Male	Female	Male	Female	Male	Female
<16yrs	0	<5	<5	14	0	<5	13	21
16-17yrs	12	36	9	11	9	31	9	23
18-24yrs	56	81	26	13	46	68	58	45
25-34yrs	53	88	27	19	61	75	78	40
35-44yrs	39	50	14	24	37	69	33	36
45-54yrs	28	37	12	20	25	46	57	40
55-64yrs	17	18	6	8	15	16	13	15
65yrs+	<5	11	<5	<5	<5	10	6	<5
Total	207	323	100	113	196	316	267	223

APPENDIX 1D: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE HSE SOUTH/SOUTH WEST HOSPITAL GROUP[1], 2017

	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	<5	19	21	7	12	<5	8	12	7	6	21
16-17yrs	0	<5	15	38	6	9	13	23	6	16	<5	31
18-24yrs	<5	6	84	77	37	34	126	93	24	52	56	80
25-34yrs	5	<5	60	58	31	31	120	66	26	32	44	40
35-44yrs	0	<5	50	45	42	19	56	53	19	26	44	41
45-54yrs	<5	<5	39	38	19	20	48	32	23	35	18	21
55-64yrs	18	<5	13	11	9	6	30	22	5	7	10	9
65yrs+	<5	<5	17	11	5	5	10	10	<5	6	5	5
Total	31	20	297	299	156	136	406	307	118	181	187	248

[1]There were no presentations recorded at Mallow General Hospital in 2017.

APPENDIX 1E: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE HSE UNIVERSITY OF LIMERICK HOSPITAL GROUP[2], 2017

	ENNIS HOSPITAL		NENAGH HOSPITAL		UNIVERSITY HOSPITAL, LIMERICK	
	Male	Female	Male	Female	Male	Female
<16yrs	0	0	0	0	11	37
16-17yrs	0	0	0	0	16	38
18-24yrs	<5	<5	<5	0	81	116
25-34yrs	0	0	<5	0	90	108
35-44yrs	6	<5	0	0	42	89
45-54yrs	0	0	0	0	33	65
55-64yrs	0	0	0	0	26	28
65yrs+	0	0	0	0	14	10
Total	7	<5	<5	0	313	491

[2]There were no presentations recorded at St. John's Hospital, Limerick in 2017.

APPENDIX 1F: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE HSE SAOLTA UNIVERSITY HEALTH CARE GROUP, 2017

	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	6	30	10	16	<5	9	<5	6	<5	15
16-17yrs	8	34	7	18	<5	11	0	12	9	11
18-24yrs	78	87	46	50	32	23	24	26	11	28
25-34yrs	66	76	55	37	29	18	21	17	23	25
35-44yrs	69	53	34	46	26	15	21	23	23	19
45-54yrs	34	39	24	31	20	22	11	8	15	17
55-64yrs	18	19	8	5	<5	12	5	<5	16	12
65yrs+	<5	7	0	<5	<5	<5	<5	<5	<5	7
Total	281	345	184	207	119	114	86	100	103	134

APPENDIX 1G: HOSPITAL-TREATED EPISODES OF SELF-HARM IN THE HSE CHILDREN'S HOSPITAL GROUP, 2017

	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	39	119	12	72	17	39
16-17yrs	0	<5	0	<5	0	<5
18-24yrs	0	0	0	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	39	120	12	73	17	43

APPENDIX II:

APPENDIX 2A: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE IRELAND EAST HOSPITAL GROUP, 2017

	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=740)	(n=222)	(n=179)	(n=3)	(n=385)	(n=43)	(n=775)	(n=264)
Admitted (general and psychiatric)	9.7%	42.3%	34.6%	0%	51.4%	32.6%	20.3%	44.7%
Patient would not allow admission	0.7%	1.4%	0%	0%	1.8%	0%	0.1%	1.5%
Left before recommendation	20.9%	9.5%	19.0%	0%	6.0%	9.3%	7.0%	11.4%
Not admitted	68.6%	46.8%	46.4%	100%	40.8%	58.1%	72.6%	42.4%

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, 2017

	ADELAIDE AND MEATH HOSPITAL, TALLAGHT	MIDLAND REGIONAL HOSPITAL, PORTLAOISE	MIDLAND REGIONAL HOSPITAL, TULLAMORE	NAAS GENERAL HOSPITAL	ST. JAMES'S HOSPITAL
	(n=580)	(n=265)	(n=133)	(n=389)	(n=698)
Admitted (general and psychiatric)	21.2%	61.9%	37.6%	27.2%	26.9%
Patient would not allow admission	0.5%	0%	0.8%	1.0%	0.1%
Left before recommendation	9.5%	8.3%	9.8%	14.7%	15.3%
Not admitted	68.8%	29.8%	51.9%	57.1%	57.6%

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, 2017

	BEAUMONT HOSPITAL	CAVAN GENERAL HOSPITAL	CONNOLLY HOSPITAL, BLANCHARDSTOWN	OUR LADY OF LOURDES HOSPITAL, DROGHEDA
	(n=530)	(n=213)	(n=512)	(n=490)
Admitted (general and psychiatric)	23.8%	52.1%	35.2%	34.3%
Patient would not allow admission	0.4%	0%	1.2%	0%
Left before recommendation	15.1%	14.6%	11.7%	19.6%
Not admitted	60.8%	33.3%	52.0%	46.1%

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[3], 2017

	BANTRY GENERAL HOSPITAL	CORK UNIVERSITY HOSPITAL	UNIVERSITY HOSPITAL, KERRY	MERCY UNIVERSITY HOSPITAL, CORK	SOUTH TIPPERARY GENERAL HOSPITAL	UNIVERSITY HOSPITAL, WATERFORD
	(n=51)	(n=596)	(n=292)	(n=713)	(n=299)	(n=435)
Admitted (general and psychiatric)	45.1%	54.9%	29.5%	14.4%	29.4%	31.0%
Patient would not allow admission	0%	0%	0%	0%	0.7%	0.5%
Left before recommendation	17.6%	3.0%	11.6%	15.4%	14.4%	9.0%
Not admitted	37.3%	42.1%	58.9%	70.1%	55.5%	59.5%

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.

[3]There were no presentations recorded at Mallow General Hospital in 2017.

APPENDIX 2E: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE UNIVERSITY OF LIMERICK HOSPITAL GROUP[4], 2017

	ENNIS HOSPITAL	NENAGH HOSPITAL	UNIVERSITY HOSPITAL, LIMERICK
	(n=10)	(n=2)	(n=804)
Admitted (general and psychiatric)	10%	0%	14.9%
Patient would not allow admission	0%	0%	0%
Left before recommendation	30%	0%	12.8%
Not admitted	60%	100%	72.3%

[4]There were no presentations recorded at St. John's Hospital, Limerick in 2017.

APPENDIX 2F: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE SAOLTA UNIVERSITY HEALTH CARE GROUP, 2017

	GALWAY UNIVERSITY HOSPITAL	LETTERKENNY GENERAL HOSPITAL	MAYO GENERAL HOSPITAL	PORTIUNCULA HOSPITAL, BALLINASLOE	SLIGO REGIONAL HOSPITAL
	(n=626)	(n=391)	(n=233)	(n=186)	(n=237)
Admitted (general and psychiatric)	31.3%	55.0%	32.6%	37.6%	32.5%
Patient would not allow admission	1.1%	0.5%	2.6%	1.6%	4.2%
Left before recommendation	14.2%	6.4%	7.7%	17.7%	8.0%
Not admitted	53.4%	38.1%	57.1%	43.0%	55.3%

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 2G: RECOMMENDED NEXT CARE BY HOSPITAL IN THE HSE CHILDREN'S HOSPITAL GROUP, 2017

	CHILDREN'S UNIVERSITY HOSPITAL AT TEMPLE STREET	NATIONAL CHILDREN'S HOSPITAL AT TALLAGHT HOSPITAL	OUR LADY'S CHILDREN'S HOSPITAL, CRUMLIN
	(n=159)	(n=85)	(n=60)
Admitted (general and psychiatric)	51.6%	85.9%	91.7%
Patient would not allow admission	0.6%	0%	0%
Left before recommendation	1.9%	0%	0%
Not admitted	45.9%	14.1%	8.3%

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 III:

APPENDIX 3A: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS TREATED IN THE HSE IRELAND EAST HOSPITAL GROUP, 2017

		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 treated	Men	270	70	54	1	131	13	258	83
	Women	293	122	86	2	155	23	345	135
	Total	563	192	140	3	286	36	603	218
Number who repeated	Men	53	9	5	1	23	4	37	11
	Women	67	18	20	0	31	9	63	22
	Total	120	27	25	1	54	13	100	33
Percentage who repeated	Men	19.6%	12.9%	9.3%	100%	17.6%	30.8%	14.3%	13.3%
	Women	22.9%	14.8%	23.3%	0%	20.0%	39.1%	18.3%	16.3%
	Total	21.3%	14.1%	17.9%	33.3%	18.9%	36.1%	16.6%	15.1%

APPENDIX 3B: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS TREATED IN THE HSE DUBLIN MIDLANDS HOSPITAL GROUP, 2017

		ADELAIDE AND MEATH HOSPITAL, TALLAGHT	MIDLAND REGIONAL HOSPITAL, PORTLAOISE	MIDLAND REGIONAL HOSPITAL, TULLAMORE	NAAS GENERAL HOSPITAL	ST. JAMES'S HOSPITAL
Number of individuals treated	Men	218	95	43	134	269
	Women	283	128	71	184	286
	Total	501	223	114	318	555
Number who repeated	Men	26	14	5	21	56
	Women	45	19	11	28	57
	Total	71	33	16	49	113
Percentage who repeated	Men	11.9%	14.7%	11.6%	15.7%	20.8%
	Women	15.9%	14.8%	15.5%	15.2%	19.9%
	Total	14.2%	14.8%	14.0%	15.4%	20.4%

APPENDIX 3C: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS TREATED IN THE HSE RCSI HOSPITAL GROUP, 2017

		BEAUMONT HOSPITAL	CAVAN GENERAL HOSPITAL	CONNOLLY HOSPITAL, BLANCHARDSTOWN	OUR LADY OF LOURDES HOSPITAL, DROGHEDA
Number of individuals treated	Men	178	90	172	196
	Women	245	99	249	198
	Total	423	189	421	394
Number who repeated	Men	23	9	25	32
	Women	40	10	41	23
	Total	63	19	66	55
Percentage who repeated	Men	12.9%	10.0%	14.5%	16.3%
	Women	16.3%	10.1%	16.5%	11.6%
	Total	14.9%	10.1%	15.7%	14%

APPENDIX 3D: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS TREATED IN THE HSE SOUTH/SOUTH WEST HOSPITAL GROUP[5], 2017

		BANTRY GENERAL HOSPITAL	CORK UNIVERSITY HOSPITAL	UNIVERSITY HOSPITAL, KERRY	MERCY UNIVERSITY HOSPITAL, CORK	SOUTH TIPPERARY GENERAL HOSPITAL	UNIVERSITY HOSPITAL, WATERFORD
Number of individuals treated	Men	20	264	134	347	97	167
	Women	20	262	119	263	141	191
	Total	40	526	253	610	238	358
Number who repeated	Men	3	31	20	39	17	21
	Women	1	32	14	32	17	31
	Total	4	63	34	71	34	52
Percentage who repeated	Men	15.0%	11.7%	14.9%	11.2%	17.5%	12.6%
	Women	5.0%	12.2%	11.8%	12.2%	12.1%	16.2%
	Total	10.0%	12.0%	13.4%	11.6%	14.3%	14.5%

[5]There were no presentations recorded at Mallow General Hospital in 2017.

APPENDIX 3E: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS TREATED IN THE HSE UNIVERSITY OF LIMERICK HOSPITAL GROUP[6], 2017

		ENNIS HOSPITAL	NENAGH HOSPITAL	UNIVERSITY HOSPITAL, LIMERICK
Number of individuals treated	Men	3	2	257
	Women	2	0	367
	Total	5	2	624
Number who repeated	Men	1	1	41
	Women	1	0	67
	Total	2	1	108
Percentage who repeated	Men	33.3%	50.0%	16.0%
	Women	50.0%	0%	18.3%
	Total	40.0%	50.0%	17.3%

[6]There were no presentations recorded at St. John's Hospital, Limerick in 2017.

APPENDIX 3F: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS TREATED IN THE HSE SAOLTA UNIVERSITY HEALTH CARE GROUP, 2017

		GALWAY UNIVERSITY HOSPITAL	LETTERKENNY GENERAL HOSPITAL	MAYO GENERAL HOSPITAL	PORTIUNCULA HOSPITAL, BALLINASLOE	SLIGO REGIONAL HOSPITAL
Number of individuals treated	Men	225	155	104	70	92
	Women	266	157	100	91	118
	Total	491	312	204	161	210
Number who repeated	Men	39	24	12	16	8
	Women	48	22	13	9	15
	Total	87	46	25	25	23
Percentage who repeated	Men	17.3%	15.5%	11.5%	22.9%	8.7%
	Women	18.0%	14.0%	13.0%	9.9%	12.7%
	Total	17.7%	14.7%	12.3%	15.5%	11.0%

APPENDIX 3G: REPETITION BY GENDER AND HOSPITAL FOR INDIVIDUALS TREATED IN THE HSE CHILDREN'S HOSPITALS GROUP, 2017

		CHILDREN'S UNIVERSITY HOSPITAL AT TEMPLE STREET	NATIONAL CHILDREN'S HOSPITAL AT TALLAGHT HOSPITAL	OUR LADY'S CHILDREN'S HOSPITAL, CRUMLIN
Number of individuals treated	Men	36	12	16
	Women	106	65	38
	Total	142	77	54
Number who repeated	Men	5	0	1
	Women	12	7	5
	Total	17	7	6
Percentage who repeated	Men	13.9%	0%	6.3%
	Women	11.3%	10.8%	13.2%
	Total	12.0%	9.1%	11.1%

APPENDIX IV:

APPENDIX 4: SELF-HARM BY RESIDENTS OF THE REPUBLIC OF IRELAND, 2017

	MEN				WOMEN			
		SELF-HARM				SELF-HARM		
Age group	Population	Persons	Rate	95% CI*	Population	Persons	Rate	95% CI*
0-4yrs	166100	0	0	(+/-0)	158500	0	0	(+/-0)
5-9yrs	183100	4	2	(+/-2)	176000	5	3	(+/-3)
10-14yrs	165500	99	60	(+/-12)	157800	274	174	(+/-21)
15-19yrs	157600	562	357	(+/-30)	151000	1145	758	(+/-45)
20-24yrs	140400	709	505	(+/-38)	135900	674	496	(+/-38)
25-29yrs	144300	593	411	(+/-34)	148200	512	345	(+/-31)
30-34yrs	166300	497	299	(+/-27)	181600	438	241	(+/-23)
35-39yrs	192700	425	221	(+/-21)	201900	419	208	(+/-20)
40-44yrs	180100	322	179	(+/-20)	183000	389	213	(+/-22)
45-49yrs	166200	284	171	(+/-20)	166900	374	224	(+/-23)
50-54yrs	150100	226	151	(+/-20)	153200	293	191	(+/-22)
55-59yrs	135900	173	127	(+/-19)	138200	213	154	(+/-21)
60-64yrs	120500	90	75	(+/-16)	121800	100	82	(+/-16)
65-69yrs	104800	57	54	(+/-14)	106400	61	57	(+/-15)
70-74yrs	82900	38	46	(+/-15)	86300	52	60	(+/-17)
75-79yrs	55100	15	27	(+/-14)	61700	29	47	(+/-17)
80-84yrs	36200	9	25	(+/-17)	46600	12	26	(+/-15)
85yrs+	24300	4	16	(+/-16)	45300	6	13	(+/-11)
Total**	2372100	4107	181	(+/-5)	2420400	4996	218	(+/-6)

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

EVE GRIFFIN
CHRISTINA B DILLON
NIALL McTERNAN
ELLA ARENSMAN
EILEEN WILLIAMSON
IVAN J PERRY
PAUL CORCORAN

4th Floor
Western Gateway Building
University College Cork
Ireland
Tel: +353 21 420 5551
Email: info@nsrf.ie
www.nsrf.ie

NSRF