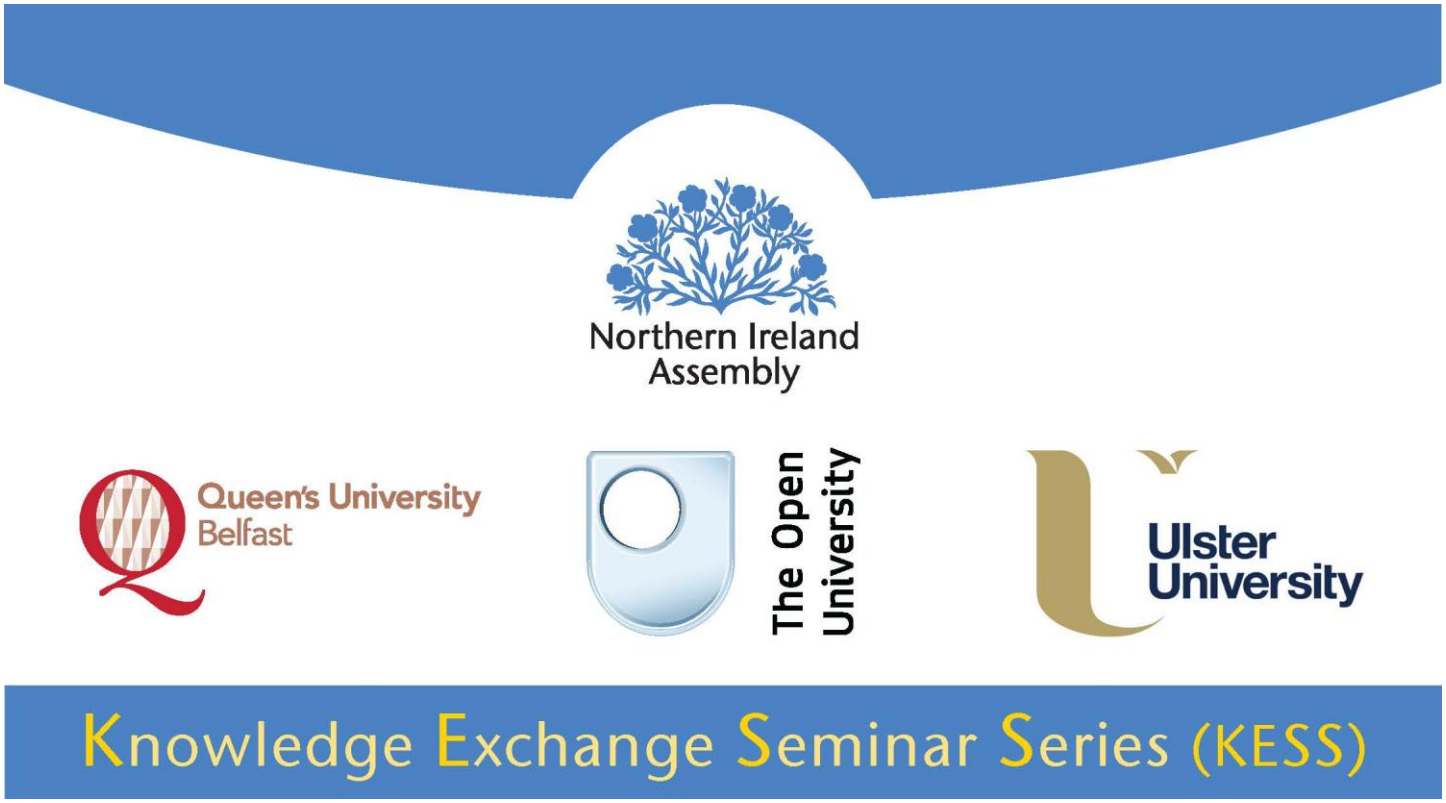


1.0 Introduction

Statistics on suicide and self-harm provide key indicators of the mental health status of any country. Self-harm is single strongest predictor of suicide. It is known that in the year following attendance at hospital with self harm, the risk of suicide is increased 50-100 times above the annual risk in the general population. The longer term risk of suicide following attendance at hospital is greater for males than females and risk increases with age at presentation to hospital in both genders. (Hawton et al 2003)

Until recently there been little information available about the extent of self-harm in the Northern Ireland (NI) population. Recent surveys among adolescents have indicated that 10% report having self harmed. (O'Connor et al 2014).

This Policy Briefing summarises key findings from the most recent reports from the NI Registry of Self Harm and highlights key areas for attention.

2.0 Background

Under the NI Suicide Strategy "Protect Life – A Shared Vision", a Registry of Self Harm has been established in conjunction with the National Suicide Research Foundation in the Republic of Ireland. Across the island of Ireland there is now full coverage of the population. The National Registry of Deliberate Self-Harm has been operating in the Republic of Ireland since 2002. The NI Registry of Self Harm is in operation across all five Health and Social Care Trusts since April 2012. This builds on a pilot in the Western Health & Social Care Trust area which has been in operation since 2007. To date two regional annual reports (2012-13 and 2013-14) have been produced. The Registry in the Western area has been in operation for longer a 6-year report is available for that area.

The purpose of collecting data for the Registry is to:

- Initiate a better understanding of the issues of self-harm and suicidal ideation

- Assess the impact of self-harm and suicidal ideation on health and social care services
- Inform service design and provision in respect of self-harm and suicidal ideation
- Inform policy development in terms of mental health promotion and suicide prevention
- Inform local communities and other key stakeholders of levels of self harm in their area.

3.0 Methods of Data Collection

3.1 The Registry in NI collects data separately on:

- Attendance at hospital Emergency Departments with self harm
- Attendance at hospital Emergency Departments with suicidal ideation (i.e. thoughts of suicide only without an act of self harm)

3.2 Data recording and case finding

Anonymised data is collected from the 12 hospital Emergency Departments (ED) in NI.
Data collectors check all entries of attendance at the hospital's ED department. All potential cases of self-harm and ideation that have presented to the ED are identified by the data collector, using the inclusion criteria. A minimum dataset has been developed to determine the extent of self-harm, the circumstances relating to the act and to examine trends by area. Reference numbers and area codes are encrypted prior to data entry to ensure that it is impossible to identify an individual on the basis of the data recorded.

The terms 'self harm' and 'suicidal ideation' are defined below. An internationally agreed definition of self harm is use.

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.'*

Suicidal Ideation: *Acts of suicidal ideation include presentations to the ED by persons who have experienced thoughts of self-harm and/or suicide, where no physical act to harm oneself has taken place.*

4.0 Cautions regarding interpretation of data

The identification of cases and the detail regarding each episode recorded by the Registry is dependent on the quality of clinical records kept. Where differences between geographical areas are highlighted it is important to note that these are not necessarily statistically significant. This particularly applies to analyses by gender and age, where the numbers of cases may be relatively small. Therefore caution should be exercised in interpreting such findings.

5.0 Summary of key findings

This section provides an overview of the incidence of self-harm and suicidal ideation in Northern Ireland for the financial year 2013/14.

5.1 Total self-harm and suicidal ideation presentations to EDs in NI

The total number of self-harm and suicidal ideation presentations in Northern Ireland during the financial year 2013/14 was 12,076. The majority (70.0%) of presentations were due to self-harm (Figure 1).

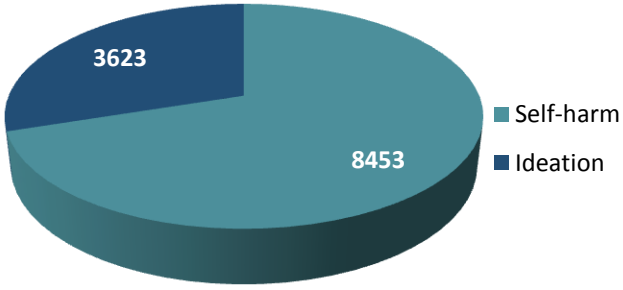


Figure 1 Self-harm and suicidal ideation presentations to hospital EDs recorded in Northern Ireland, 2013/14

5.2 Gender Profile

In relation to self-harm there was an even balance of male and female presentations. This contrasts with suicidal ideation presentations where almost two thirds of cases presenting with suicidal ideation were male.

5.3 Age Profile

Persons aged 15-29 accounted for almost half (44%) of all self-harm presentations. Those under 18 years of age accounted for 10% of all self harm presentations. The ratio of females to males was 2.2 to 1 for the under 18 age group.

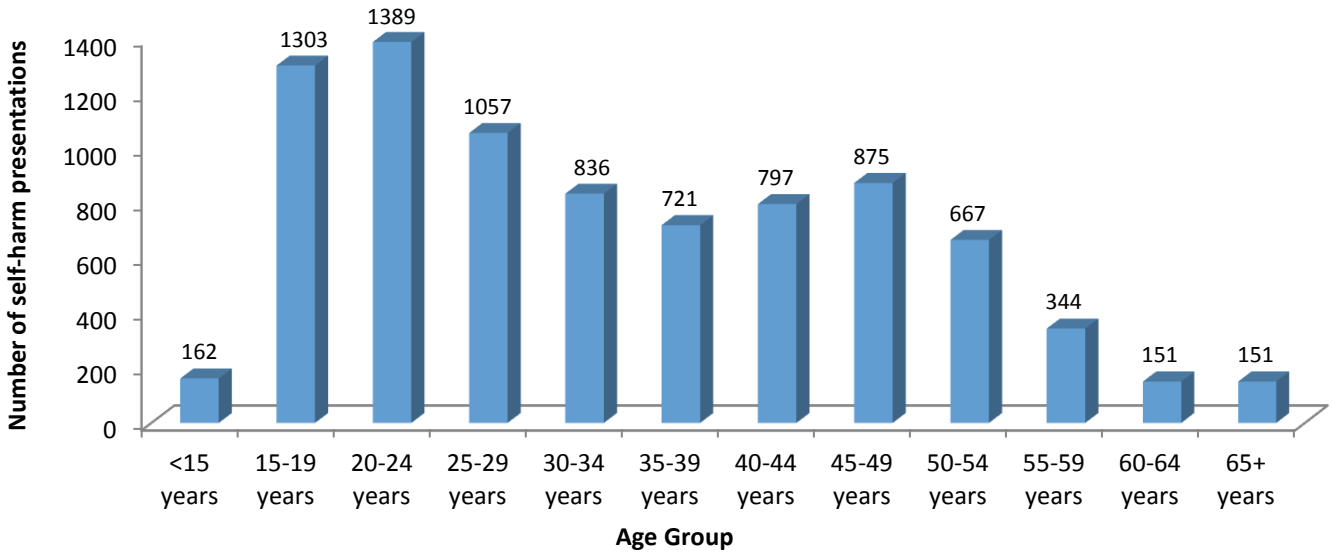


Figure 2: Number of self harm presentations to Emergency Departments 2013-14

However with regard to suicidal ideation approximately 5% of presentations involved people under 18 years of age and in contrast to self-harm in this age group, there was an even distribution between both genders.

5.4 Repetition of self harm

People who self harm may do so on more than one occasion. In 2013-14, 5983 people presented to ED with self harm accounting for 8453 hospital attendances. The rate of repetition of self-harm was 20% for males and 19% for females. Approximately 43% of all presentations in 2013/14 were repeat self-harm presentations (43.2%). In total 127 people presented to the ED 5 or more times during 2013/14. This relatively small number of people accounted for 13.7% of all presentations (n=1,160) (Table 1).

Table 1 Repetition distributions of self-harm presentations in Northern Ireland, April 2013 to March 2014

Number of presentations	Persons	% of all persons	Total Presentations	% of total presentations
1	4803	80.3	4803	56.8
2	711	11.9	1422	16.8
3	216	3.6	648	7.7
4	105	1.8	420	5.0
5+	127	2.5	1160	13.7

Analysis of sub-groups of the population shows that the homeless are at significantly increased risk of repetition of self harm.

5.5 Methods of self harm

Drug overdose was the most common method of self-harm accounting for almost three quarters of presentations (74%), followed by self-cutting which was involved in 24% of presentations as outlined in Table 2.

Table 2: Self-harm presentations by method in Northern Ireland, 2013/14

Northern Ireland Methods of self-harm	Number of presentations (%)
Drug Overdose (%)	6232 (73.7%)
Self-cutting (%)	2011 (23.8%)
Attempted Hanging (%)	303 (3.6%)
Attempted Drowning (%)	91 (1.1%)
Self-poisoning (%)	95 (1.1%)

A study looking at the specific drugs taken in overdose in the Western area of NI compared to the Republic of Ireland reveals higher rates of overdose in the Western area but similar patterns of drug use. The most commonly used drugs in both jurisdictions are 'minor tranquillisers'. Limiting access to drugs commonly taken in overdose is one key aspect of prevention.

5.6 Involvement of alcohol in self-harm

Although rare as a sole method of self-harm, alcohol was involved in almost half of the total presentations (49%), the proportion varying from 39% in the South Eastern Trust area to 57% in the Western Trust area. ***This is similar to that reported in England but higher than the***

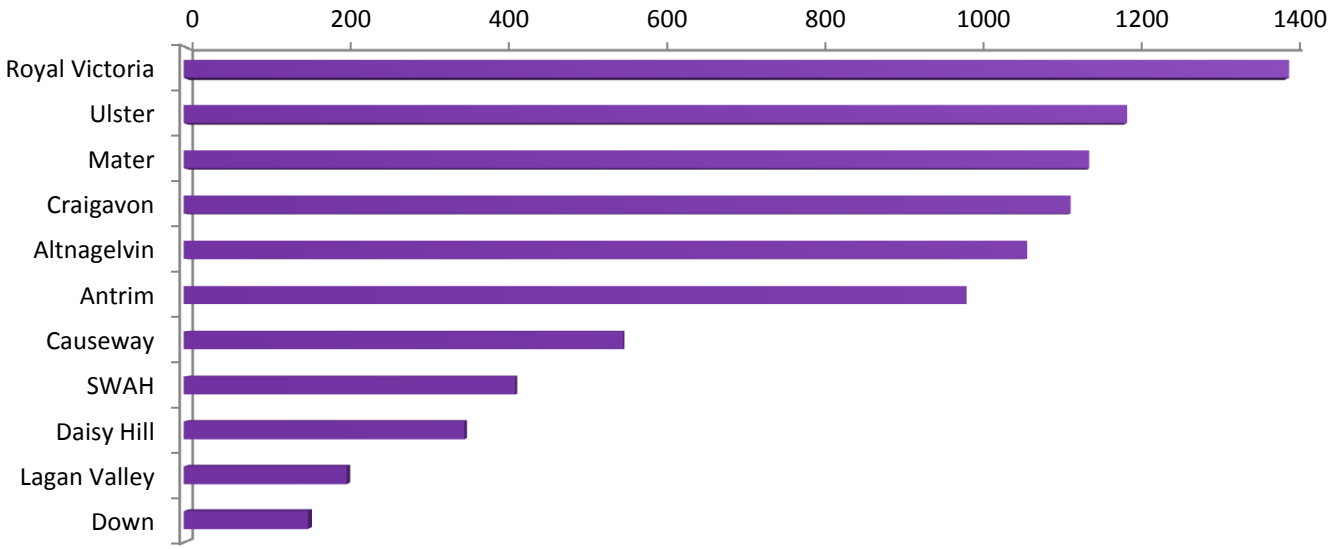
Republic of Ireland (37%). Alcohol was more often involved in male episodes of self-harm than female episodes (53.8% and 43.4% resp.)

The time of presentation to the ED is strongly associated with the involvement of alcohol with presentations involving alcohol rising steadily through the evening time and peaking in the early hours of the morning.

5. 7 Self-harm presentations by hospital EDs

The Self-Harm Registry records data across all 12 EDs in Northern Ireland. The distribution of 8,453 presentations between the 12 hospitals is summarised in Figure 3 below. The Royal Victoria Hospital in Belfast recorded the highest number of presentations, accounting for 16.2% (n=1,373) of total presentations.

It should be borne in mind that this data relates to *hospital treated* self harm and that is some Trust areas e.g. urban areas patients may choose to attend the ED due to proximity and ease of access. It is possible that in more rural areas patients do not attend the ED but may choose to use other services such as Minor Injury Units or GP services. This requires further exploration.



**This graph omits the Royal Hospital for Sick Children due to small identifiable numbers*

Figure 3 Breakdown of number of self-harm presentations by hospital ED, 2013/14

5.8 Rates of Self Harm

Based on the European Age Standardised Rate (EASR), the rate of self-harm for Northern Ireland was 327 per 100,000 (males: 333; females: 321). This rate ranged from 254 per 100,000 in the Southern Trust area to 502 per 100,000 in the Belfast Trust as outlined in Figure 4.

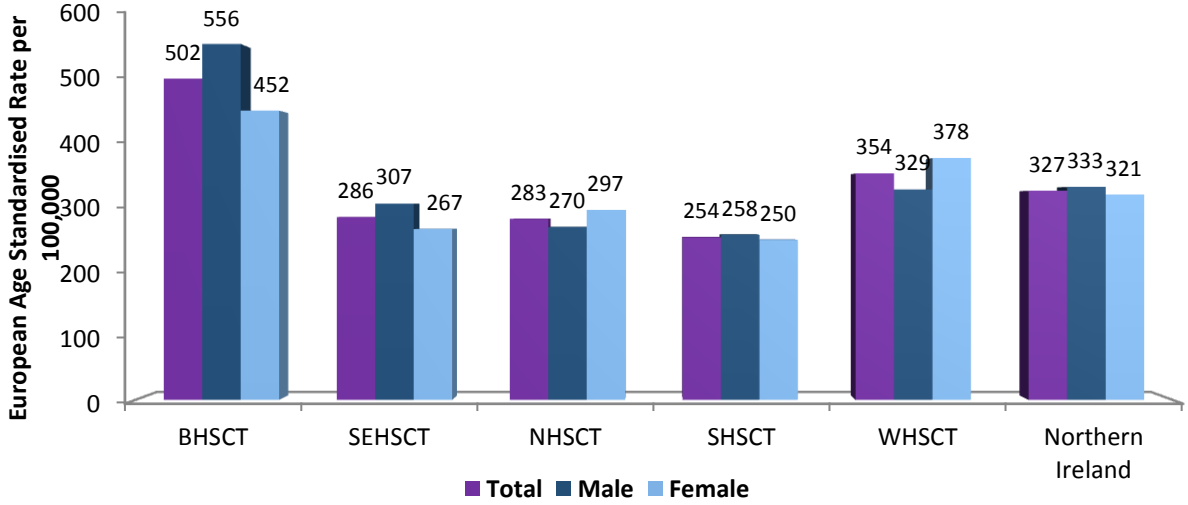


Figure 4 European Age Standardised Incidence rates of self-harm, all ages per 100,000 by gender and HSCT area, 2013/14

The EASR of self-harm was highest among 20-24 year olds (789 per 100,000). In particular, the highest female rate was observed among 15-19 year olds (935 per 100,000) and the highest male rate occurred among 20-24 year olds (908 per 100,000).

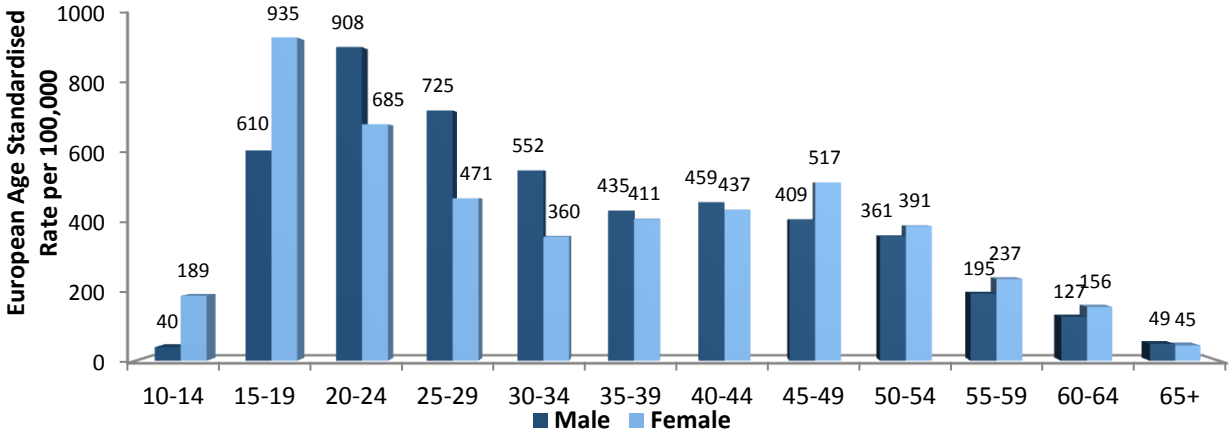


Figure 5: EASR per 100,000 of self-harm in Northern Ireland by age and gender, 2013/14

5.9 Comparisons of NI rates with Republic of Ireland and UK

The EASR of self-harm in NI was over two-thirds (64%) higher than that for the Republic of Ireland (NI 27 per 100,000 vs. Republic of Ireland 199 per 100,000).[2] The most striking difference in rates was observed among men, with the Northern Ireland rate being 82.9% higher than the comparative rate for males in the Republic of Ireland (Table 4).

Table 4 EASR per 100,000 of persons presenting to hospital following self-harm in Northern Ireland and Republic of Ireland, 2013/14

Incidence Rate per 100,000	Northern Ireland*	Republic of Ireland*
Total	**327**	**199**
Male	333	182
Female	321	217

**Regarding comparison RoI data is based on the calendar year 2013, NI data is based on the business year 2013/14*

However it should be noted that there are different heath systems in operation in each country. Under the National Health Service, there is free access to healthcare for all residents of Northern Ireland, while there is a fee for each visit to the ED in the Republic of `Ireland for non-medical card holders.

Comparing the incidence of hospital treated self-harm for those **aged over 15 years** in cities in NI to the Republic of Ireland and a number of study areas in England, reveals highest rates in Belfast City 632 per 100,000, followed by Derry City (622), Limerick City (610) and Derby with a rate of 435 per 100,000. (Table 5). The rates available for comparison were age standardised rates per 100,000 population aged over 15 years only.

Examining this by gender reveals that highest rates were seen in the female category with Derry ranked 2nd after Limerick for females. Among males highest rates were seen in Belfast followed by Derry (Table 5)

Table 5 **European age standardised rate (EASR) of persons aged over 15 years presenting to hospital following self-harm in Northern Ireland, the Republic of Ireland and UK cities**

Incidence Rate per 100,000	Males	Females	All Persons
Belfast	661	602	**632**
Derry	577	**664**	**622**
Limerick	515	705	**610**
Derby	322	552	**435**
Northern Ireland Average	430	413	**421**
Cork	467	351	**411**
Manchester	355	446	**398**
Dublin	332	375	**354**
Galway	391	378	**353**
Waterford	345	269	**307**
Oxford	248	358	**301**
Republic of Ireland Average	230	265	**247**

5.10 Key points from the 6 year report in the Western Area

The Registry began as a pilot in the Western area of NI. Data is therefore available over a longer period of time for analysis. A six year report has been published which examines trends over time. In addition a series of supplements are being produced quarterly on thematic areas such as repetition of self harm, alcohol involvement, methods used, and socio-economic factors associated with self harm.

Key findings from the analyses to date include:

- The number of previous attendances at ED with self harm is a strong predictor of the risk of repetition. Fewer than 10% of first presentations resulted in a repeated attendance within 3 months. This increased to 20% following second presentations, 33% following third presentations up to 57% following 5+ presentations.
- The risk of repetition was highest in the short term with 20% of presentations followed by a repeat presentation within 3 months.
- People who are involved in attempted drowning may be at increased risk of repeat self harm. A relatively high proportion of cases (24%) that involved attempted drowning repeated self harm. However numbers were small and this requires further research.
- People who left the ED without seeing a doctor were at high risk of repetition (26.5%). This highlights the importance of designing services to ensure rapid flow of patients through the ED with minimal waiting times so that patients do not become frustrated by delays and decide to leave before either seeing a doctor or the mental health team for psychosocial assessment. This is in keeping with other research which suggests that a psychosocial assessment following self-harm is associated with lower rates of non-fatal repetition.

- There has been a 6% increase in self harm in the Western area during the period 2007-2012. A rise would be expected during times of economic recession but this rise is not as great as has been seen in the Republic of Ireland (12%) and elsewhere. There may be some protective factor at work to buffer the effect of the economic recession, possibly the implementation of the Protect Life Strategy.

6.0 Implications and next steps

The data from the Self Harm Registry helps to highlight the scale of the problem of self harm. However the Registry only captures data on those people who have attended an ED. Consideration will be given to obtaining data from other sources which may give a fuller picture of the issue and might explain some of the variation seen across the province. This is likely to require additional funding.

Measures to promote positive mental health and coping strategies and prevent self harm and suicidal behaviours should be supported in the update of the Protect Life Strategy. This will include measures targeting people who self harm that have co-existing substance misuse problems and /or other mental health problems. Specific vulnerable groups such as the homeless will require a joined up approach across sectors.

Efforts should continue to further reduce access to and availability of 'minor tranquillisers' as these are the drugs most commonly taken in overdose. This will include changes to prescribing patterns as well as ensuring quick access to 'talking therapies' and alternative interventions. It will be necessary to continue to try to address illicit supplies of both this and other prescription drugs and non-prescription drugs which may be taken in overdose.

The relationship between alcohol misuse and self-harm has been discussed in this paper. Measures to reduce public alcohol consumption are likely to help reduce self harming behaviour.

The data is currently being used to inform service developments within EDs and mental health services both the statutory and voluntary sectors to ensure an adequate response is provided to patients who self harm. It is also being used in training programmes for staff within the Emergency Departments to increase awareness of this issue. There is a need for awareness rising in other sectors such as the Education sector and Housing Authorities.

In order to fully realise the potential of this dataset it will be necessary to link this data with other datasets. There are some issues in relation to data ownership and secondary use of data which need to be further explored and addressed.