LINCOLNSHIRE COUNTY COUNCIL

Suicide and Self-Harm
2014 Annual Report

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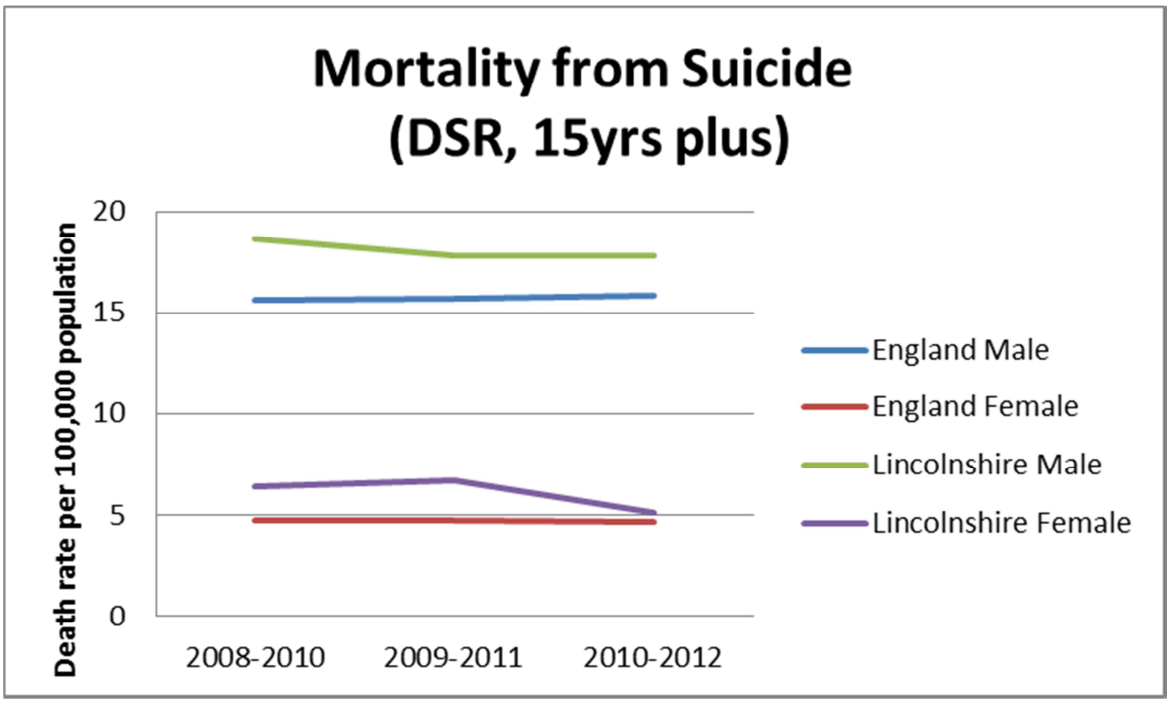
Lincolnshire COUNTY COUNCIL

Introduction

This report provides an examination and analysis of suicide and self-harm in Lincolnshire, with the purpose of demonstrating findings from the audit. The most up to date information has been accessed from Health and Social Care Information Centre (HSCIC) and Public Health Mortality Files on suicides registered during 2013. More detailed information has been accessed via patient records and relates to those suicides registered in the calendar year 2011.

As can be seen from the graph below, Lincolnshire has a higher rate of death from suicide for both males and females than in England.



Ref HSCIC Mortality from Suicide and Injury Undetermined, directly standardised rate, 15+ years, 3 year average.

Using pooled data from 2010-2012 (www.indicator.ic.nhs.uk) for those aged over 15yrs, the England suicide rate is 10.19 for all persons, 15.85 for males and 4.70 for females. This compares to the Lincolnshire rate of 11.32 for all persons, 17.85 for males and 5.13 for females. Distinguished by districts, City of Lincoln has the highest rate for both male and female suicide, as can be seen overleaf.

	All Persons	Male	Female
England	10.19	15.85	4.70
Lincolnshire	11.32	17.85	5.13
Boston	9.66	16.72	x
East Lindsey	12.62	19.19	6.33
City of Lincoln	**15.78**	**22.54**	**9.08**
North Kesteven	11.91	18.54	5.81
South Holland	8.44	14.26	X
South Kesteven	9.19	15.41	3.27
West Lindsey	10.69	16.70	5.35

Mortality from S+IU, 15+, DSR, 2010-2012 pooled per 100,000 population
(Data that may potentially identify an individual have been removed in cells marked by x, from the Public version of the Indicator Portal)

Demographic Information

Nationally, the majority of suicides continue to occur in adult males, accounting for approximately three quarters of all suicides. Latest information for Lincolnshire shows 64 deaths were registered in 2013, of which 52 (81%) were male. This represents a change in the gender bias for the county, with an increasing proportion of male deaths, as shown below.

	2008	2009	2010	2011	2012	2013
Male	46 (78%)	62 (69%)	42 (74%)	42 (69%)	64 (82%)	52 (81%)
Female	13 (22%)	28 (31%)	15 (26%)	19 (31%)	14 (18%)	12 (19%)
All Persons	59	90	57	61	78	64

Actual Figures

In comparison to women of the same age, men are more likely to take their own lives, but the difference varies by age. Latest national figures show the peak difference, both in terms of number of suicides and rate, is in the 20-24 age-group where there are five male suicides for each female suicide. The difference between male and female suicide rates is also noticeable in those aged 75+.
In Lincolnshire, the majority (56%) of male deaths were of those aged 35-44 and 45-54 years, which is consistent with recent years, and the majority (50%) of female deaths were within the age group 45-54 years. Historically the majority of female suicide has been within the 55+ age groups, but 2013 shows a more even distribution across all age ranges, including younger age groups.
In 2012, there had been a greater proportion of male deaths in both the under-25 and over 75 years age group, than the previous three years. For the period 2009-2011, the proportion of deaths of those aged under-25 years was 6.7%. This rose to 10.5% in 2012 and this increase has maintained with the proportion of males aged <25 at 10% (5/52) in 2013. For males aged over 75 years, the proportion in 2009-

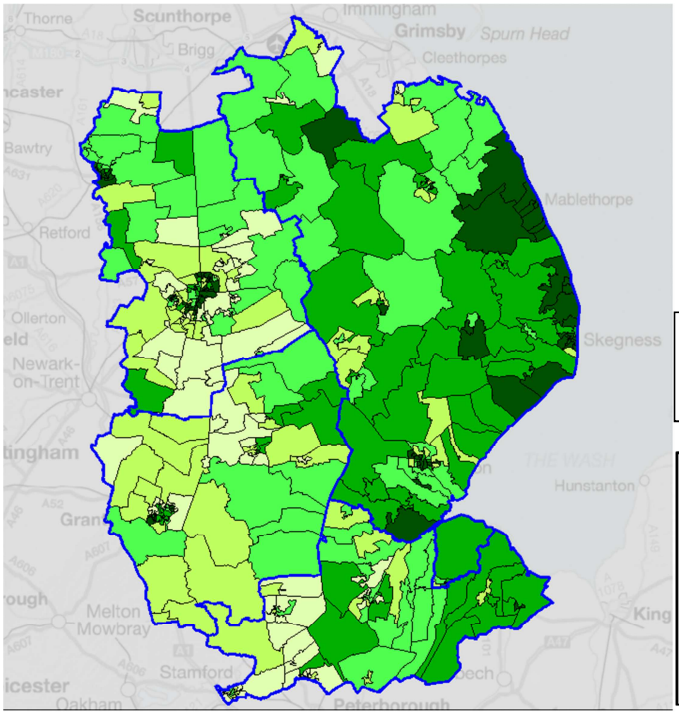
2011 was 7.7%. This increased in 2012 to 13%, however, this increase has not continued in 2013.

The increase in number of young people under 18 years has been the subject of investigation and further information is under the 'Children & Young People' section. A review of these confirmed and suspected suicides is underway; a final report is being presented to the Child Death Overview Panel in autumn 2014

Information on ethnicity is not routinely available, however patient records indicate eastern European origin for 5/56 (9%) records, which may infer a need to ensure information regarding support services and access to these services is available to members of the migrant population.

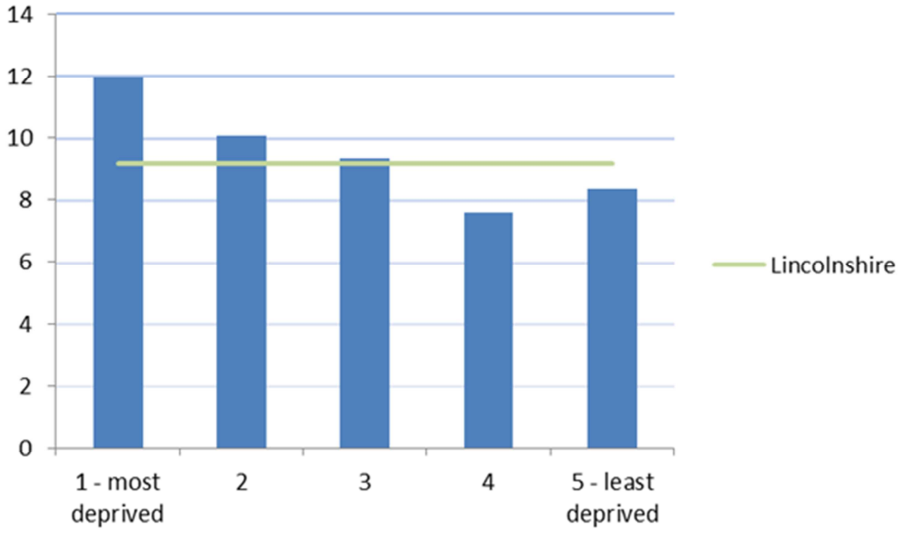
Socio-economic Deprivation

Between January 2010 and December 2012 there were 194 registered deaths by suicide in Lincolnshire. In order to consider whether people from deprived areas are more likely to die through suicide the following analysis was carried out. Using the Indices of Multiple Deprivation 2010, Lower Level Super Output Areas were mapped from the most deprived quintiles to the least deprived. The 194 individuals were mapped and the quintile in which they lived in was identified.
The map below shows the location of the most and least deprived quintiles in Lincolnshire.



The Suicide and undetermined injury mortality rates by deprivation quintile was calculated and are shown on the graph below. This shows there was a higher rate of suicides in the most deprived areas and further analysis into the risk factors of those

living within the most deprived quintiles would be beneficial to defining future action for suicide prevention.



Mortality rate from suicide in Lincolnshire by quintile of deprivation, 2010-12 crude rate per 100,000 population.
Source: Public Health Lincolnshire (LRO)

Contributing Factors to Suicide

The likelihood of a person taking their own life depends on several factors, and stressful life events can also play a part. For many people, it is the combination of factors which are important rather than one single factor. Many suicide risk factors are known from research – being male, living alone, being unemployed, alcohol and drug misuse, and mental illness. Up until 2013 and the transfer of Public Health to the local authority, access has been available to GP patient records to identify possible risk factors for Lincolnshire patients. However since 2013, access to patient records has not been permitted, therefore this source of information has not been accessed for those whose deaths were registered after 2011. It is important to note that although insightful, the quality of data within patient records varies, therefore findings are indicative of the true picture rather than providing robust evidence.
For those whose deaths were registered in 2011, 56/61 Lincolnshire patient records were made available and investigation identified evidence of the following contributing risk factors: certain occupation groups, history of mental health problems and depression, history of self-harm, physical ill-health, alcohol misuse, financial issues, abuse, bereavement and special educational needs. It is important to note that not all people exposed to these risk factors take their own life as over the life course a level of resilience and protective factors are developed.

Method

The International Classification of Diseases (ICD10) is used to classify suicide method. Nationally figures for 2012 indicate hanging, strangulation and suffocation continues to be the

most common method of suicide for men, accounting for 60% of all male suicide deaths. There is a similar picture in Lincolnshire with 63% in 2013 and 52% in 2012. Along with drug-related poisoning, hanging is also a common method amongst women, each accounting for 38% nationally. Lincolnshire data for 2013 shows hanging is the method used in 33% of female suicides and 50% due to drug-related poisoning. In 2012, hanging was the method chosen in 50% of female suicides and 43% due to drug-related poisoning.

With regards to drug-type for drug-related suicide, 10/12 deaths in 2013 were classified as 'Poisoning by and exposure to other and unspecified drugs, medicaments and biological substances'. This includes 7 deaths where the drug-groups were not specified and 3 deaths due to a mixture of drug-groups. This is a similar picture to 2012, when 10/19 deaths were classified under this drug type.

One of the key areas for action within the national strategy is to reduce access to the means of suicide and safe prescribing can help to restrict access to some toxic drugs, which will be reflected in the recommendations of this report.

Location

For deaths registered in Lincolnshire in 2013, 41 took place at the home address, with 23 designated as 'elsewhere', consistent with the 2:1 ratio of previous years. However, when looking at gender, the ratio was reduced for male suicide with 33 at home and 19 elsewhere. Female deaths were 8 at home and 4 elsewhere. The designation of 'Elsewhere' includes hospitals, alternative addresses, rivers, roads, and level crossings. It is important to note that where death occurred in hospital these individuals may have been transferred to hospital from home or elsewhere.

Contact with Mental Health Services

For 2011, patient records showed 17/40 (43%) males and 10/16 (63%) females had some previous contact with mental health services. A history of depression was evident in 13/40 (33%) male and 9/16 (56%) female records. Lincolnshire Partnership Foundation Trust (LPFT) have confirmed that 20/61 (33%) people whose deaths were registered in 2011, were in contact with services within the 12 months prior to death, which represents an increase from 25% in 2010. Of these, 13/20 individuals were female.

Physical Health

Some long-term physical health conditions are associated with an increased risk of suicide. The national strategy also refers to a higher risk for those receiving a diagnosis of cancer, heart disease and chronic obstructive airways disease. 23/56 (41%) Lincolnshire patient suicide records investigated for 2011 identified long term physical ill health, which included back injuries and pain, osteoarthritis, epilepsy, asthma and cancer.

Alcohol and Drug Misuse

(11/56) 20% of Lincolnshire patient suicide records for 2011 indicated a history of alcohol problems, representing 20% of males and 19% of females. This is lower than previous years, which was 28% in 2009 and rose to 41% in 2010.

(6/56) 11% indicated a history of drug misuse, which is 13% of males and 6% of females. This percentage is lower

than previous years, which was 21% in 2009 and 27% in 2010.

It is estimated that there are over 17,000 people across Lincolnshire classified as dependent drinkers, with a further 25,000 people drinking at harmful or higher risk levels. Over 106,000 people are drinking at a level that is an increasing risk to their health. (JSNA Topic: Alcohol, LRO, 2012)
Recent analysis has shown a correlation between alcohol-attributable hospital admissions and the most deprived areas in Lincolnshire. The link between alcohol use, deprivation and suicide risk should be considered when prioritising future suicide interventions.

Dual Diagnosis

Co-morbidity of drug and alcohol misuse and mental ill health is associated with increased risk of suicide and suicide attempts. 8/11 patient records with alcohol abuse also had history of contact with mental health services. 5/6 patient records with substance misuse also had a history of contact with mental health services. This includes 4 records which identified both alcohol and substance misuse with a history of mental health contact.

Childhood Experience

As stated in the national strategy, adverse and abusive experiences in childhood are associated with an increased risk of suicidal behaviour. 14% (8/56) of records investigated suggest child abuse or difficult childhood experiences; an increase from 11% in 2010 and 12% in 2009. Records identified an equal number of males and females and the following common dominant themes which include, separation from parent by death and/or abandonment, abuse, taken in to care or fostered, alcoholic parent or parent with mental ill health, special educational needs; and the majority had a history of self-harm.

Criminal Justice System

People in contact with the criminal justice system have been identified as a high-risk group for suicide. Nationally, the number of people believed to have died through suicide within 2 days of being released from police custody in 2012-13 was 59, the highest for nine years (LGiU Policy Briefing). Almost two-thirds had a history of mental health concerns. From patient records accessed for Lincolnshire in 2011, 20% (8 males and 3 females) had a history of contact with the Criminal Justice System. None of which, referred to recent release from police custody. 9/11 had a history of mental health concerns and 6/11 had a history of alcohol and or substance misuse.

Bereavement and Relationships

Bereavement and relationship breakdown or difficulties feature in more than a third of records, with 23% of records making reference to bereavement which includes suicide and attempted suicide of family members.

Special Educational Needs

16% (9/56) of 2011 Lincolnshire patient suicide records suggest some form of special educational needs, which include problems with literacy, mild learning disability, autism and ADHD. Personal, Social, Health & Economic (PHSE) education provides a framework for schools to provide age-appropriate teaching on issues including sex and relationships, substance misuse, and emotional and mental health. It is recommended that PHSE programmes are supported in all schools, including special schools and behavioural referral units to help all children recognise and seek help earlier for any emerging emotional problems.

Contact with Primary Care

Of the 56 Lincolnshire patient records accessed for deaths registered in 2011, there was no information regarding GP contact for 14 records. Of the remaining 42 records, 9 indicated zero appointments in the last 12 months. Where information was available, 9 indicated contact regarding mental health, 3 within a week and a further 2 within 2 weeks of their suicide; 14 indicated contact for medication/medication review, 7 within 1 week, and a further 4 within 1 month. Other contact included new patient registration, blood test, monitoring and physical health. With reference to 'Suicide in primary care in England:2002-2011', 37% of people who died by suicide had not seen their GP in the previous year and suicide risk is associated with frequent attendance, increasing attendance, and non-attendance.

Contact with Other Services

In addition to primary care and mental health services, patient records indicate contact with a range of other services. These include housing and benefits, Police and courts, alcohol and drug treatment services, occupational health and a range of secondary care including gastroenterology, ear nose & throat and physiotherapy. All potentially have a role in suicide prevention.

Finance

There are direct links between mental ill health and social factors such as unemployment and debt. In 2010 14% records referred to financial difficulties, anxiety about money, tax returns and debt of family members, whereas, in 2011, 4% of records specifically mentioned finances and debt worries.

Occupation

Reference is made within the national strategy to research that shows among men, health professionals and agricultural workers remain the groups at highest risk of suicide, however, other occupational groups have emerged with raised risks. Nationally the highest numbers (not rates) of male suicides were among construction workers and plant and machine operatives. Among women health workers, in particular doctors and nurses, remain at highest suicide risk.

Information regarding the latest known occupation for each individual is

included within the mortality files. These have been analysed using the ONS Standard Occupation Classification 2010. For Lincolnshire deaths registered in 2013, information regarding occupation was not provided for 18/64 (28%) individuals, which represents a greater proportion than the previous 2 years (19% of records in 2012 and 18% in 2011). This may infer a greater number of deaths by those without employment but could be the information has not been captured on the final inquest form, so unfortunately no conclusions can be drawn. The occupation group with the greatest number of male deaths 9/52 (17%) was 'Elementary occupations'; those jobs which require a minimum level of education and the trend shows an increasing proportion over the last 3 years. Other occupations also represented included 'Managers, Directors and Senior Officials', 'Professional', ' Associate Professional & Technical' and 'Skilled Trades'. In 2012 the greatest number of deceased was either within a professional occupation (13%) or factory workers (13%). Females were represented across a range of classification groups. 9/64 (14%) of the deceased in 2013 were of retirement age (female 60+, male 65+), which represents a return to 2011 figures, from the peak of 24% seen in 2012.

With reference to the Murrison Report and recognition of suicide risks for military personal, reflection of those 6/56 (11%) identified from the patient record as having a military history whose deaths was registered in 2011, showed that all individuals were male; none currently serving. Although ages ranged from 21-74 and the length of time since leaving military service ranged from within 2 years to more than 20 years, there were recurrent risk factors which included relationship breakdown, depression and mental illness.

Children and Young People

2012 saw an increase in the number and proportion of young people aged under 25 years, with the death of 8 young people registered in 2012 and a further 5 deaths registered in 2013. All were male and 8/13 deaths were through hanging.

There are around 150,000 children and young people under 18 years living in Lincolnshire and around 50 deaths in this age group in the county each year. Most child deaths occur in the first year of life and are due to prematurity and congenital/genetic factors.

Child suicides are uncommon in Lincolnshire, reflecting the national picture. However, there has been an increase in the number of suicides with four confirmed suicides in children/young people under 18 years and two suspected suicides since September 2011. In the same time period there has been an increase in the number of children admitted to hospital with self-harm*. All the confirmed/suspected suicides were male and were aged between 11 and 17 years.

A review of these confirmed/suspected suicides is underway; a final report is being presented to the Child Death Overview Panel in autumn 2014. The review has provided an opportunity for greater engagement between colleagues working on the suicide agenda in adults and children and young people. The review will recommend that this engagement continues specifically around suicide prevention in young people under 25 years.

**Admissions to hospital due to self-harm in Lincolnshire are similar to the England average. (Admissions in under 25 year olds per 100,000, 2012/13, Child Health Profile 2014)

Self-Harm

Self-harm is defined as 'self-poisoning or injury, irrespective of the apparent purpose of the act'. Self-harm is an expression of personal distress, not an illness, and there are many varied reasons for a person to harm him or herself. People who self-harm are at increased risk of suicide, although many people do not intend to take their own life when they self-harm. Risk is particularly increased in those repeating self-harm and in those who have used violent or dangerous methods of self-harm.

From the Lincolnshire patient records accessed for 2011, 32% (18/56) had history of self-harm, which is 28% (11/40) of males and 44% (7/16) of females. Of these, 45% (5/11) of males and 86% (6/7) of females had repeated incidents of self-harm. 39% (7/18) of incidents took place within the 12 months prior to death. The percentage of those with a history of self-harm is lower than previous years, which was 46% in 2009 and 41% in 2010, but with a similar percentage that had self-harmed within the 12 months prior to death.

Depression is a risk factor for repeated self-harm and15/18 of those with a history of self-harm also made reference to depression.

6/18 of those with a history of self-harm were also associated with a history of either, alcohol and or substance misuse, a lesser proportion than in 2010.

Nationally, in contrast to trends in completed suicide, the incidence of self-harm has continued to rise in recent years. 2011/12 rates of hospital admissions for self-harm varied across Lincolnshire from 148.4 per 100,000 population in South Holland to 485.2 in Lincoln district (one of the 10 highest rates in England in 2011/12). Emergency departments and primary care have an important role in care, follow up and treatment of people who self-harm, specifically for those with repeated self-harm.

The table below shows the rates self-harm events severe enough to warrant hospital admission.

Geography Name	2009-10	2010-11	2011-12
East Midlands	225.1	242.9	208.85
England	198.26	212	207.89
Lincolnshire	201.68	217.7	222.43
Boston	205.15	191.16	203.07
East Lindsey	161.96	202.18	222.89
Lincoln	455.07	447.36	485.18
North Kesteven	155.65	186.29	162.72
South Holland	118.12	138.1	148.41
South Kesteven	137.34	147.86	164.82
West Lindsey	209.45	216.77	180.73

Emergency Hospital Admissions for Intentional Self-Harm, directly age-sex standardised rate (per 100,000), all ages.

SOURCE: Public Health England. www.healthprofiles.info

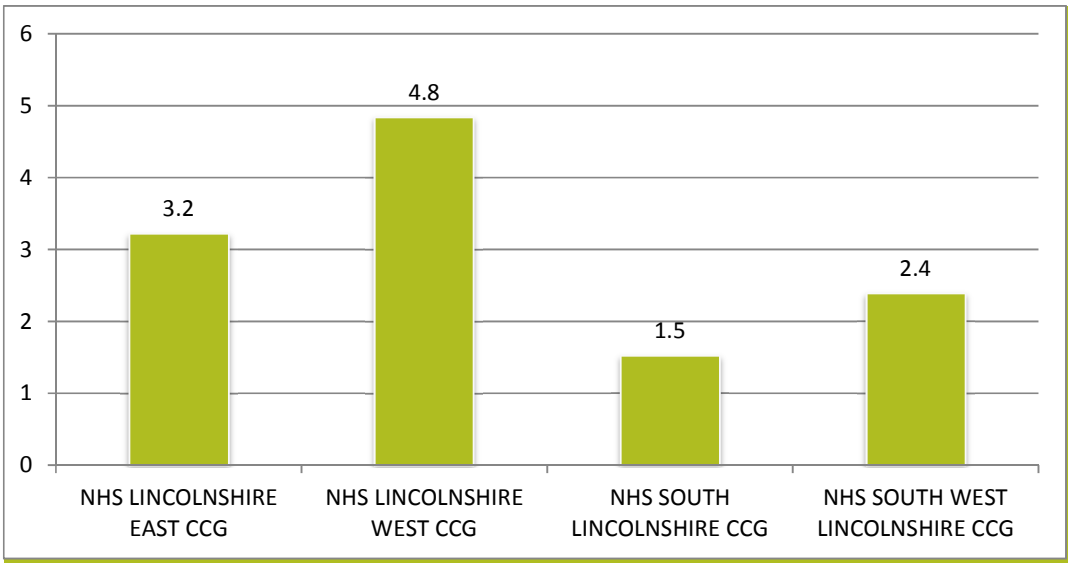
There is evidence that psychosocial assessments (an assessment of both the psychological and social needs of the individual, the risk of future self-harm or

suicide, and to determine follow-up care) of people who have suicidal thoughts or have self-harmed are themselves helpful in preventing further suicidal behaviour.
The national estimate is only 60% of individuals can expect to receive a psychosocial assessment, yet the assessment of those who have suicidal thoughts or have self-harmed is itself helpful in preventing further suicidal behaviour.
Data from Lincolnshire Partnership Foundation Trust (LPFT) showed that in 2013 they received 1,439 self-harm referrals from Lincolnshire GP registered patients aged 18 to 64, as can be seen below. The number of referrals in 2013 increased by nearly 13% compared to the previous year and 44% compared to 2011. Across the whole 3 year period nearly 60% of all referred patients were females.

CCG name	2011	2012	2013
NHS Lincolnshire East CCG	375	478	447
NHS Lincolnshire West CCG	408	533	670
NHS South Lincolnshire CCG	99	120	141
NHS South West Lincolnshire CCG	119	145	181
Total	1001	1276	1439

Self-harm referrals to LPFT by year of referral and patient's registration CCG, actual numbers age 18-64
Source: Lincolnshire Partnership Foundation Trust

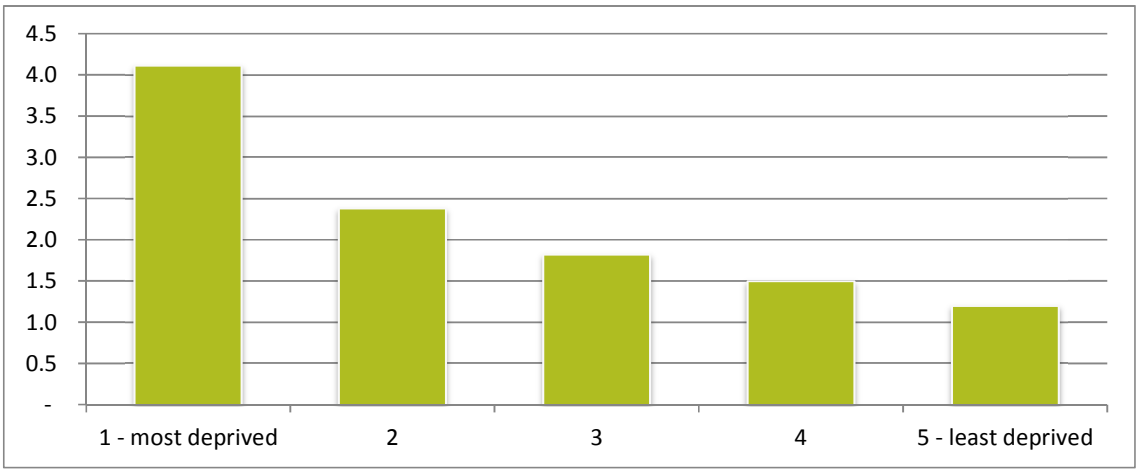
The number of self-harm referrals in 2013 has been compared to the number of GP registered patients aged 18 to 64 and proportionally the highest referrals rate was Lincolnshire West CCG (4.8 per 1,000) and the lowest from South Lincolnshire CCG (1.52 per 1,000), as can be seen below.



Self-harm referrals to LPFT in 2013 per 1,000 registered patents aged 18-64
Source: Lincolnshire Partnership Foundation Trust

Using hospital admissions data and deprivation scores, findings suggest, that the risk of engaging in self-harm increases significantly with deprivation. A person who

lives in 20% of the most deprived areas in Lincolnshire is 3.5 times more likely to engage in self-harm than someone living in the 20% least deprived areas. It is important to note that using the residential postcode is a proxy of deprivation and may not necessarily reflect an individual patient's circumstances.



Hospital admissions for self-harm, 2010-2012, crude rates per 1,000 population by quintiles of deprivation

Source: Hospital Episodes Statistics (SUS), Department for Communities and Local Government, IMD 2010

Focus on the City of Lincoln

Given the high rate of suicide within the City of Lincoln 2008-2010, further investigation of the risk factors for this population has been initiated. Initial investigation of the 46 deaths registered during the 4 years 2008-2011 indicate the greatest number of deaths were of residents from Abbey, Park and Carholme wards; information shows a variation between the City and countywide with a greater proportion of deaths within the 25-34 age group, a greater proportion of those within 'Elementary Occupations' and lower proportion of those with 'Professional Occupations', 'Associate professional and technical occupations' and ' Skilled Trades'; a lower proportion with a history of contact with mental health services; slightly higher evidence of alcohol and substance misuse, and a greater proportion of those with history of contact with the criminal justice system.

Investigation of data for self-harm identified hospital admission rates for self-harm were much higher among Lincoln residents than the rest of the county across all age groups. Geographically the areas with the highest rates of admission are based on the edge of Birchwood Ward and part of Abbey Ward and among Lincoln residents the correlation between deprivation scores and self-harm admission rates is even stronger than that found in the county.

Conclusions

1. Many individuals are in contact with a range of organisations and members of their local community leading up to their death, all of which potentially have a role in suicide prevention.

2. Self-harm is a known risk factor and one of the strongest known predictors of suicide. The increasing number of hospital admissions and referrals to LPFT emphasise the importance of engaging with and supporting individuals who self-harm and treating them with compassion. Emergency departments and primary care have an important role in the care of people who self-harm, specifically for those with repeated self-harm. There are some concerns over the accuracy of self-harm coding and data recording and therefore there is a need to be aware of this and for future work to improve robustness of self-harm data.

3. The number of deaths by suicide in Lincolnshire is relatively small, yet the impact of each suicide is vast and far-reaching. Family and friends bereaved by a suicide are at increased risk of poor mental health and emotional problems, and may be at higher risk of suicide themselves.

4. Since the transfer of Public Health to Local Authority, access to data and specifically to GP patient records, which have previously been used to inform suicide and self-harm prevention, has been restricted. There is a need to develop information sharing agreements with partner organisations and explore alternative data sources, as collating numbers alone does not provide the quality of data to inform and target suicide prevention effectively.

5. There are a number of contributory factors towards the risk of suicide and self-harm, including deprivation and depression.

6. One of the most effective ways to prevent suicide is to reduce access to means and one of the suicide methods most amenable to intervention is self-poisoning.

7. Emotional resilience – as stated not all people exposed to known risk factors have suicidal thoughts as through their life they have developed resilience and protective factors.

8. By improving the mental health of the population as a whole can also reduce suicide.

9. Fewer males have contact with mental health services, yet greater numbers die by suicide, indicating a need for increased awareness of mental health and support for males.

Key

(www.data.gov.uk) The English Indices of Deprivation 2010 provide a relative measure of deprivation at small area level across England. Areas are ranked from least deprived to most deprived on seven different dimensions of deprivation and an overall composite measure of multiple deprivation. Most of the data underlying the 2010 Indices are for the year 2008. The domains used in the Indices of Deprivation 2010 are: income deprivation; employment deprivation; health deprivation and disability; education deprivation; crime deprivation; barriers to housing and services deprivation; and living environment deprivation. Each of these domains has its own scores and ranks, allowing users to focus on specific aspects of deprivation. In addition, two supplementary indices measure income deprivation amongst children - the Income Deprivation Affecting Children Index (IDACI) - and older people - the Income Deprivation Affecting Older People Index (IDAOPI).

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