Audit of Suicides and Deaths From Undetermined Intent in Cambridgeshire and Peterborough in 2014

March 2015

(Revised July and August 2015)

Sandra James
Specialty Registrar Public Health

Acknowledgements:

The following people are thanked for their contribution to this audit:

- David Heming, Coroner for Peterborough City Council
- David Lea, Assistant Director of Public Health Intelligence, Cambridgeshire County Council
- Rachel Middleton, Manager at Cambridgeshire County Council Coroner's Office
- Helen Whyman, Public Health Information Analyst, Cambridgeshire County Council

Confidentiality and sharing of information:

The full audit report contains potentially sensitive data and is intended for limited circulation. For this reason the following summary version has been produced to be shared with a wider audience.

Status

This report includes HM Coroner data. This is the first year that we have utilised these data and, as such, the content of the report needs to be viewed as work in progress. The aim in 2015 will be to build on this first report and to refine and improve the content and the conclusions that can be drawn.

Executive Summary

A number of risk factors for suicide are now recognised, including gender, age, mental illness, physical illness, previous suicidal tendencies, drug and alcohol misuse, and a range of lifestyle factors known to increase personal stress levels.

This audit will contribute to the local programme of work to address suicide prevention across Cambridgeshire and Peterborough. The use of Coroner data pertaining to deaths from suicide and undetermined intent will facilitate the understanding of local trends and will provide an insight into this matter ahead of the publication of the national annual data set. This audit has been compiled using quantitative data from national data sets as well as local quarterly routine data provided by the Cambridgeshire County Council and Peterborough City Council Coroner's Offices.

In general the key findings of this local audit follow the pattern experienced nationally[1.] It is difficult to determine whether any differences found are representative of the local population, as the numbers are relatively small and prone to fluctuation. For this reason this report and the key findings should be read as statements of fact on the coroner deaths reported, rather than assessing differences in risks. More data are needed i.e. several years of data to be able to draw firm conclusions. Further analysis on population risk would then be able to be undertaken.

Cambridgeshire Key Findings:

- The local trend, in line with the regional and national trend, is for a higher rate of death from suicide or undetermined intent among men compared with women
- Rates of death from suicide or undetermined intent in Cambridgeshire have increased since 2011 but remain lower than regional and national rates
- In 2014 the Coroner recorded 46 deaths as a result of suicide or undetermined intent
- Most deaths occurred in men (70%), particularly those aged between 40 and 59 years
- 30% of deaths occurred in Cambridge, with a notable proportion in March
- 47% of all deaths were as a result of hanging
- 33% of the deceased were married and 37% were single at the time of death
- 46% of the deceased were in employment
- 83% of the deceased were registered with a GP
- Data were not available to determine history of depression or mental health service use

Peterborough Key Findings:

- The local trend, in line with the regional and national trend, is for a higher rate of death from suicide or undetermined intent among men compared with women
- The rate of death from suicide and undetermined intent in Peterborough has remained consistently higher than the regional and national rates, since 2001. However an encouraging fall in rates has been observed since 2011
- In 2014 the Coroner recorded 19 deaths as a result of suicide or undetermined intent
- Most deaths occurred in men (63%), particularly those aged between 31 and 59 years
- Almost all deaths occurred in Peterborough (80%)
- 37% of all deaths were as a result of hanging and 26% of all deaths were as a result of multiple injuries (including head injuries)
- 63% of the deceased had a history of depression, and the same number had current or previous contact with mental health services prior to death
- 53% of the deceased were single at the time of death and 23% were married
- 48% of the deceased were in employment
- 69% of the deceased were registered with a GP

As a result of this audit limitations are discussed in relation to routine data set used to compile findings, and a series of recommendations are made to improve the provision of routine quarterly data and future annual audits.

What is the key message?

People who take their own life are often known to mental health services, are usually registered with a GP and will often be in employment. This reaffirms the need to identify those at risk, and to ensure every opportunity and contact is utilised to full effect to deliver timely and effective supportive interventions to prevent unnecessary loss of life.

CONTENTS

1.0 Introduction

Suicide is considered as a deliberate act which intentionally ends one's life, and it remains an important cause of preventable mortality in this country. Whilst the population rate of death from suicide or undetermined intent is lower than it was 10 years ago in England, the actual number of deaths is higher, with over 13,700 deaths being categorised as suicide or undetermined intent between 2011 and 2013.

A number of risk factors for suicide are now recognised, including gender, age, mental illness, physical illness, previous suicidal tendencies, drug and alcohol misuse, and a range of lifestyle factors known to increase personal stress levels. National strategy calls for the recognition that suicide is not inevitable, and highlights the importance of ensuring an inclusive society that avoids the marginalisation of individuals and which provides support in times of personal crisis[1].

2.0 Aim

This audit will contribute to the local programme of work to address suicide prevention across Cambridgeshire and Peterborough. The use of Coroner data pertaining to deaths by suicide and undetermined intent will facilitate the understanding of local trends and will provide an insight into this matter ahead of the publication of the national annual data set. The audit will be presented to the local Suicide Prevention Strategy Implementation Group in order to influence strategy implementation.

3.0 Background

3.1 National Policy

In 2012 the Government launched a national strategy for the prevention of suicide in England, with overarching objectives to reduce the rate of suicide in the general population in England, and to improve the provision of support to those bereaved or affected by suicide. In order to support the delivery of these objectives, six key priority areas for action are identified:

1. Reduce the risk of suicide in key high risk groups
2. Tailor approaches to improve mental health in specific groups
3. Reduce access to the means of suicide
4. Provide better information and support to those bereaved or affected by suicide
5. Support the media in delivering sensitive approaches to suicide and suicidal behaviour
6. Support research, data collection and monitoring

In order to expand and improve the systematic collection of and access to data related to suicides and deaths of undetermined intent, the national strategy calls for

action at a local level. Coroner's should work with other local agencies in order to provide data that will give an early indication of emerging patterns, ahead of the compilation of national data from the Office for National Statistics. The production of a local annual audit responds to the requirement of the national strategy and also seeks to better inform local prevention work.

3.2 Joint Cambridgeshire & Peterborough Suicide Prevention Strategy

In 2014 a joint strategy for the prevention of suicide in Cambridgeshire and Peterborough was published[2]. The strategy sets out Cambridgeshire County Council, Peterborough City Council and Cambridgeshire and Peterborough Clinical Commissioning Group's strategic priorities and recommendations for action to prevent suicides in the local area between 2014 and 2017. The strategy was developed and endorsed by a range of local stakeholders, in response to the national suicide prevention strategy. It includes local intelligence relating to trends and gaps in current provision, and is accompanied by a 3 year action plan[3] which is being implemented by the local Strategy Implementation Group, which will oversee progress and evaluation.

4.0 Methodology

This audit has been carried out using quantitative data from the following sources:

- Data for the number of deaths and age-standardised suicide rate: by sex, country and region, England and Wales, 2013 (Office for National Statistics)
- Age-specific suicide rate: females, United Kingdom, 2013 (Office for National Statistics)
- Age-specific suicide rate: males, United Kingdom, 2013 (Office for National Statistics)
- Proportion of suicide deaths by method and sex, United Kingdom, 2013 (Office for National Statistics)
- Public Health Outcomes Framework Indicator 4.1: Suicide rate Age-standardised mortality rate from suicide and injury of undetermined intent per 100,000 population Directly standardised rate per 100,000 (Public Health England)
- Quarterly routine data pertaining to deaths from suicide and undetermined intent in Cambridge 2014 (Cambridgeshire County Council Coroner's Service)
- Quarterly routine data pertaining to deaths from suicide and undetermined intent in Peterborough 2014 (Peterborough City Council Coroner's Service)

Further qualitative data was obtained from 5 sets of Coroner case files for deaths from suicide or undetermined intent in Cambridgeshire in 2014.

The purpose of this case file review was to:

1) Establish whether the review of individual case files yields a richer source of data that could potentially enhance the annual audit process.
2) Determine the estimated length of time required to review a single case file, in order to consider the feasibility of this approach going forwards.
3) To inform recommendations made for the future planning of the local annual suicide audit.

5.0 Nationally published data

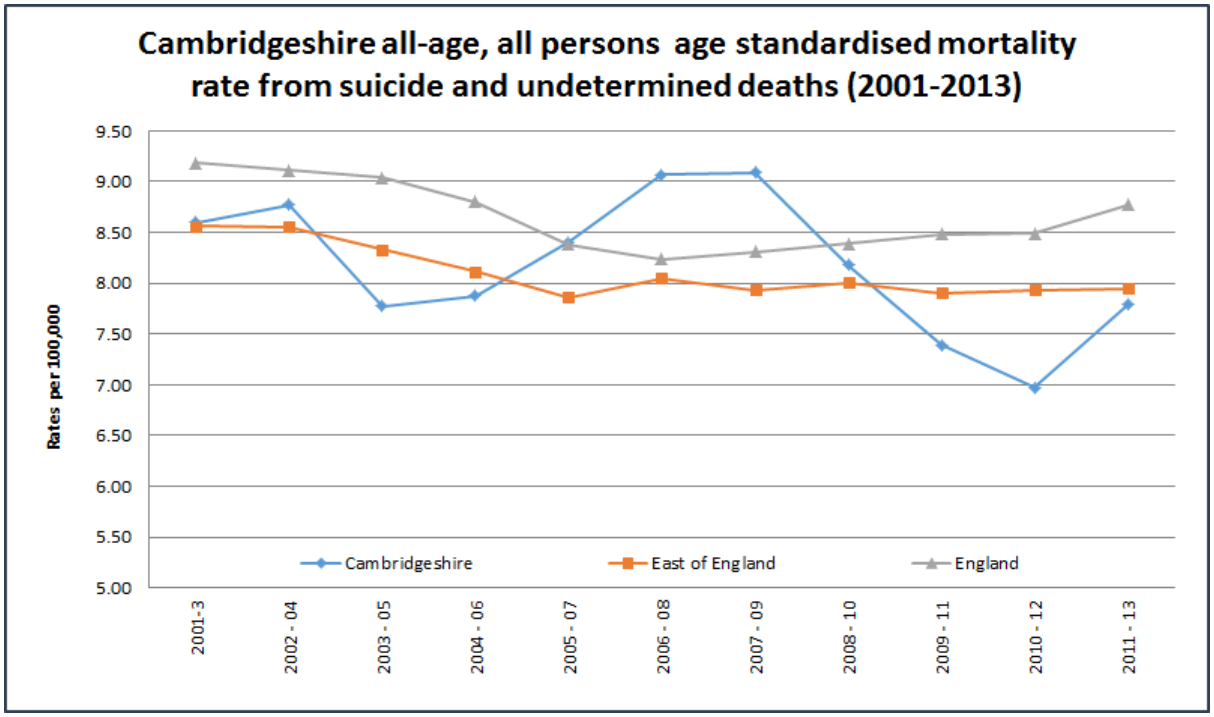
The following section presents data that are published nationally, which allows for comparisons across the country, as well as trend analysis.

5.1 Cambridgeshire

As figure 1 demonstrates, the national rate of death from suicide or undetermined intent steadily declined between 2001 and 2007, a trend which was mirrored across the East of England. Since 2007 the national rate has increased from 8.31 (2007-09) to 8.77 per 100,000 in 2011-13, which represents an additional 1,079 deaths in a 3 year period. The regional rate has remained stable since 2007.

The rate of death from suicide or undetermined intent in Cambridgeshire has shown a different picture to the national and regional trends since 2001, as illustrated in figure 1. A period of decline from 2001 to 2005 was followed by a steady rise in deaths, resulting in a peak between 2006 and 2009, where the 3 year aggregate mortality rate exceeded that observed both regionally and nationally. Between 2009 and 2011 Cambridgeshire experienced a decline in deaths, with the rate falling from 9.09 (2007-09) to 6.97 per 100,000 in 2010-12, which represents 34 fewer deaths in a 3 year period. Between 2011 and 2013 Cambridgeshire has experienced a rise in deaths, with an additional 18 deaths over the 3 year period compared with 2010-2012. It should be recognised however that the current rate of suicide and death from undetermined intent in Cambridgeshire remains lower than that observed regionally and nationally.

Figure 1 : Trend in suicide and undetermined injury deaths, Cambridgeshire

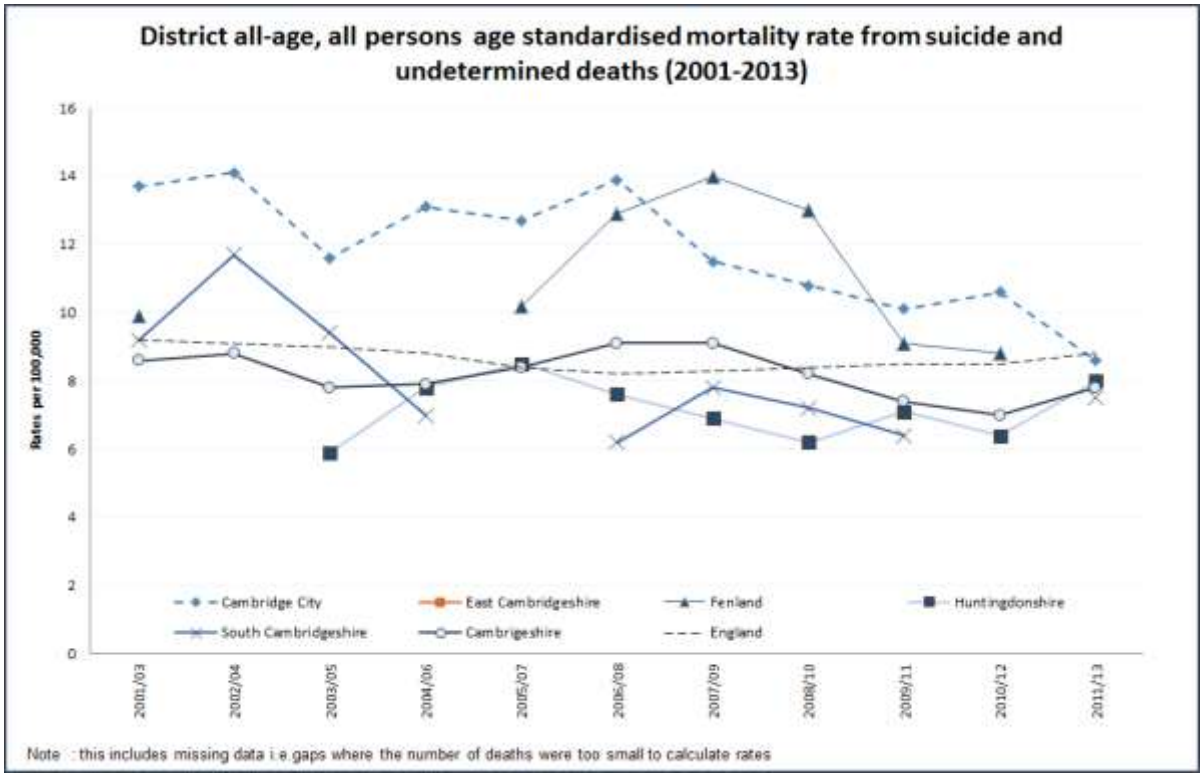


Source : Fingertips, Public Health England

The chart below shows the trend in the suicide and undetermined injury mortality rate by district. Data are not published for some time periods as the number of deaths is too small to calculate rates. This is especially the case in East Cambridgeshire where no data are available.

As can be seen the rates notably fluctuate between time periods. There has been an overall downward trend experienced in Cambridge City and a notable decrease in rates in Fenland over the latter time periods reported. In general there has been a small increase in rates in Huntingdonshire from 2008/10 onwards.

Figure 2 : Trend in suicide and undetermined injury deaths, Cambridgeshire districts



Source : Fingertips, Public Health England

The table below presents the rates at district level for the time period 2011 to 2013. There were on average 48 suicide and undetermined injury deaths a year in Cambridgeshire over this time period, with rates being highest in Cambridge City. None of the district rates differed significantly to either the Cambridgeshire or national rates.

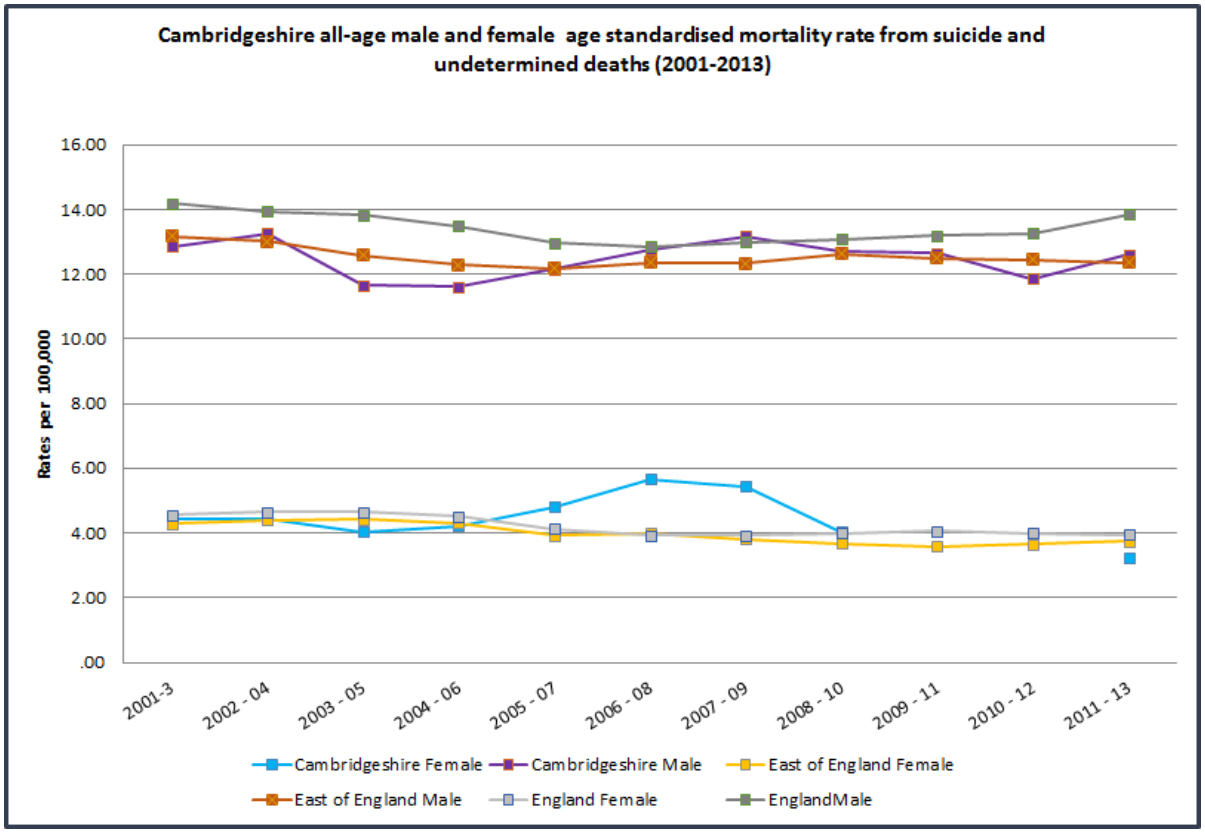
Table 1: Suicide and undetermined injury death rates, Districts, Cambridgeshire, 2011/13

District	Number	Rate per 100,000	Confidence intervals	
			Lower	Upper
Cambridge City	31	8.6	5.7	12.5
East Cambridgeshire	18	-	-	-
Fenland	23	-	-	-
Huntingdonshire	40	8.0	5.7	10.9
South Cambridgeshire	33	7.5	5.1	10.5
Cambrigeshire	145	7.8	6.6	9.2
England	13,758	8.8	8.6	8.9

Source : Fingertips, Public Health England '-' value cannot be calculated as number of cases is too small

As illustrated below, the morality rate for suicide and undetermined intent is higher in males than females. The regional and national trends for both male and female deaths follows the all-person trend considered previously, simply with higher rates for male deaths. Whilst the Cambridgeshire trend for male and female deaths generally follows the local all-person trend, the peak in deaths above the regional and national rates observed between 2006 and 2009 was greater for females. For the 3 year time periods 2009-11 and 2010-12 the death rate for females in Cambridgeshire could not be calculated because the actual number of cases was too few.

Figure 3 : Trend in suicide and undetermined injury deaths, Cambridgeshire, gender



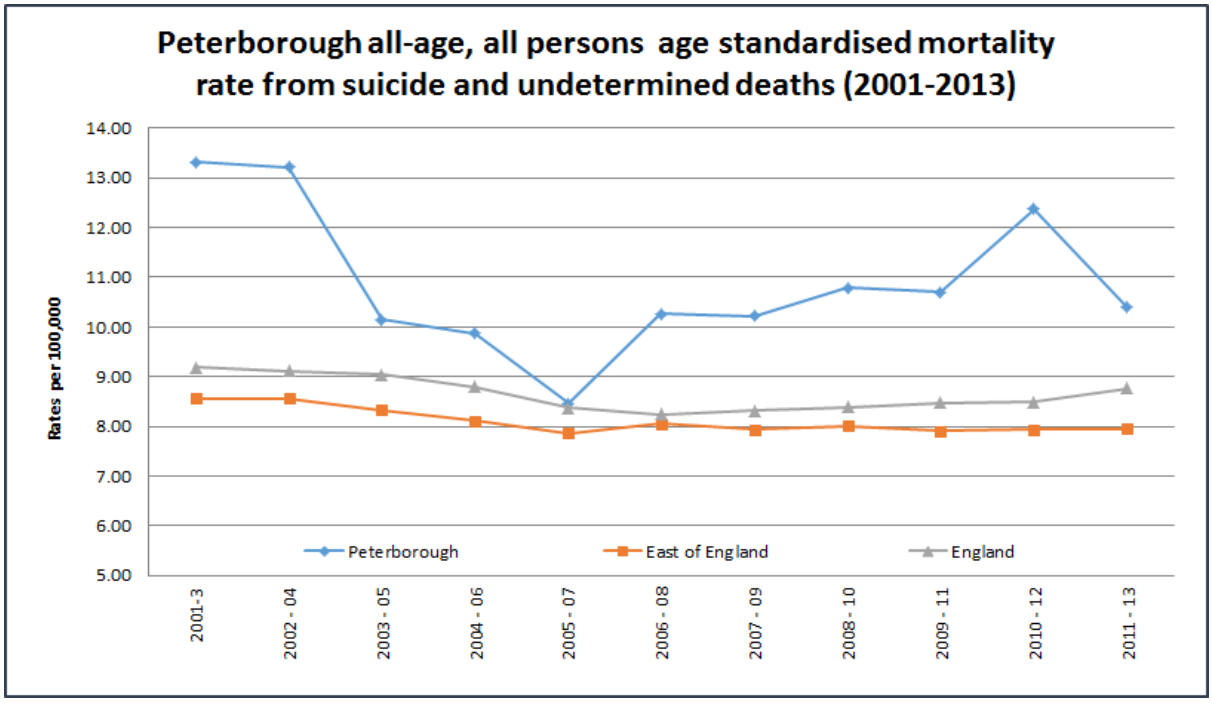
Source : Fingertips, Public Health England

5.2 Peterborough

As figure 4 demonstrates, the national rate of death from suicide or undetermined intent steadily declined between 2001 and 2007, a trend which was mirrored across the East of England. Since 2007 the national rate has increased from 8.31 (2007-09) to 8.77 per 100,000 in 2011-13, which represents an additional 1,079 deaths in a 3 year period. The regional rate has remained stable since 2007.

The rate of death from suicide and undetermined intent in Peterborough has remained consistently higher than the regional and national rates, since 2001. The highest rates of death were observed in the 3 year periods 2001-3 and 2002-4, where the rate exceeded 13 deaths per 100,000. A steady decline after 2004 saw the Peterborough rate fall to meet the national average in 2005-7, where the rate was 8.46 per 100,000. Unfortunately this period of decline was subsequently followed by a rise in deaths in Peterborough, with the rate steadily increasing to reach 12.38 per 100,000 in 2010-12 (representing an additional 22 deaths in a 3 year period compared with 2005-7). The current rare has fallen back to 2009-11 levels.

Figure 4 : Trend in suicide and undetermined injury deaths, Peterborough

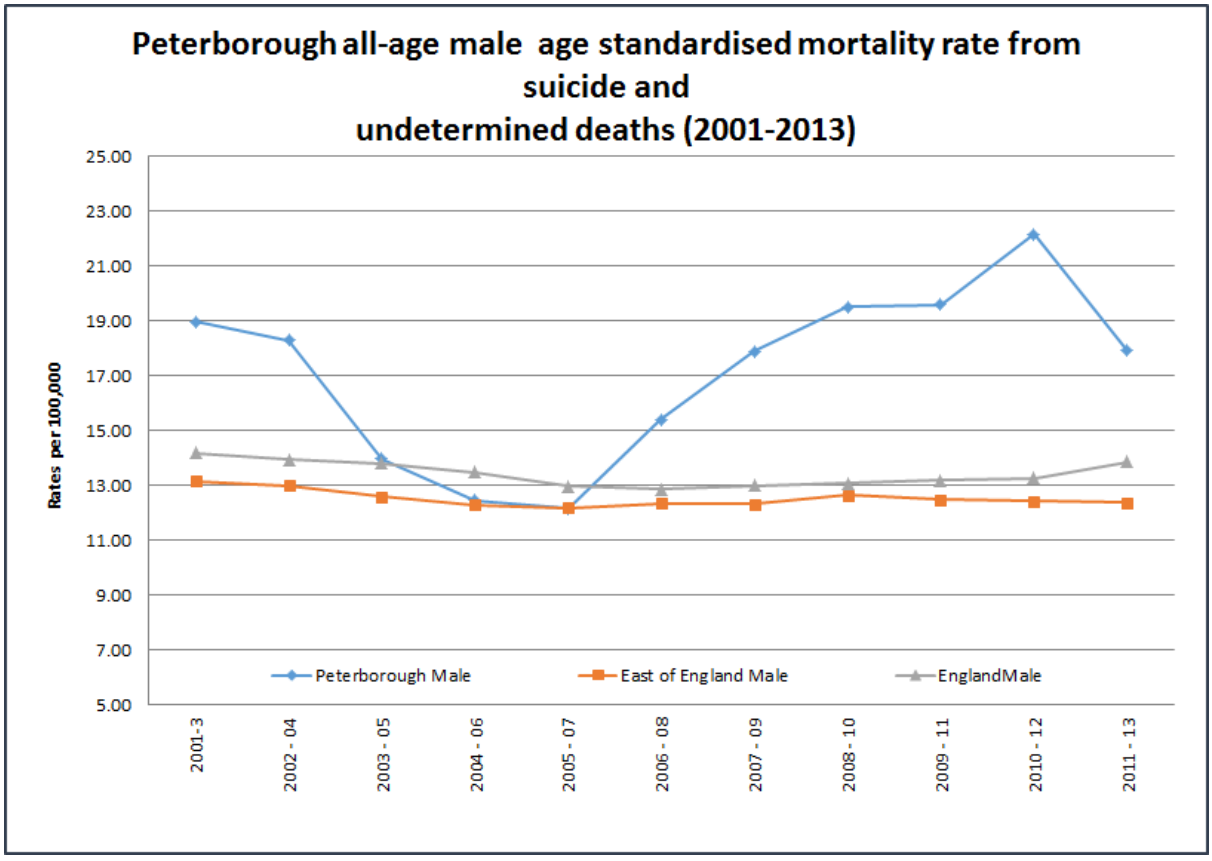


Source : Fingertips, Public Health England

As figure 5 illustrates, the male age standardised mortality rate from suicide and death of undetermined intent in Peterborough showed a decline between 2001 and 2007, in line with the all-persons rate. A steady rise in male deaths after 2007 followed the previously observed trend in deaths across both genders. Similarly a fall in male deaths has been observed between 2011 and 2013, in line with the overall Peterborough trend, which represented 9 fewer deaths compared with the previous 3

year period. The death rate for females in Peterborough could not be calculated because the actual number of cases was too few.

Figure 5 : Trend in male suicide and undetermined injury deaths, Peterborough



Source : Fingertips, Public Health England

6.0 Audit Results

The following section examines the suicide and undetermined intent audit of Coroner's data for 2014. It is important to note that the number of deaths is relatively small and due to this is also more difficult to draw firm conclusions.

6.1 Cambridgeshire

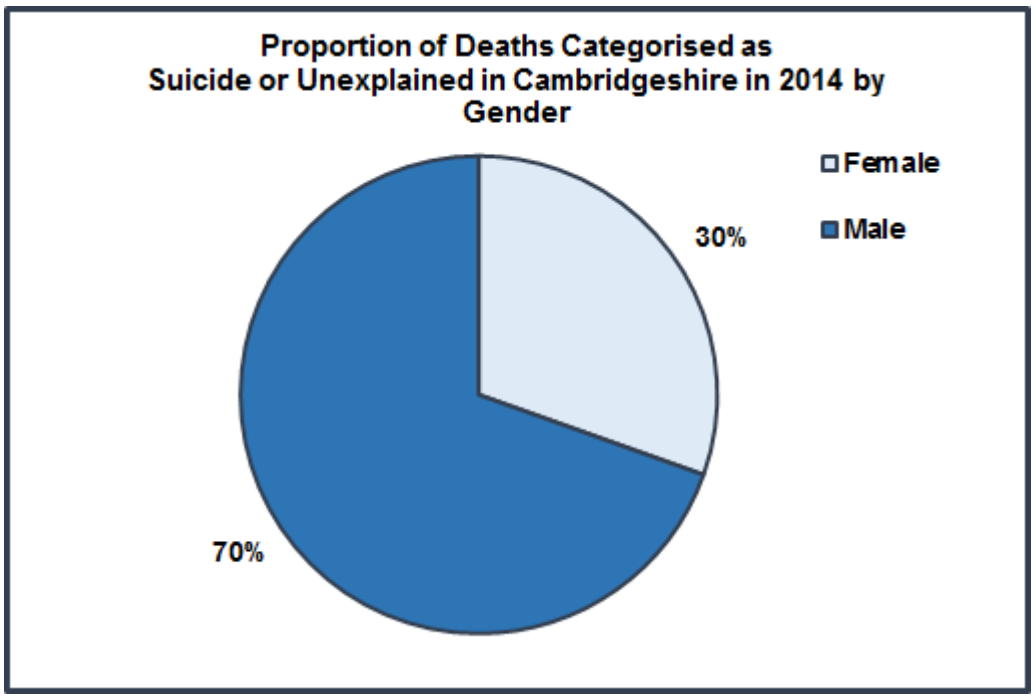
In 2014 the Cambridgeshire Coroner's Office recorded a total of 46 deaths from suicide or undetermined intent. Of those 46 deaths a formal conclusion of suicide was assigned to 21 deaths (46%). For the remaining 25 deaths (54%) a conclusion of suicide had not been reached at the time the audit data was supplied.

6.1.1 Gender

Men are highlighted nationally as a key risk group for suicides, with men reported to be at three time's greater risk of death from suicide than women[4].

As illustrated in figure 6, across Cambridgeshire in 2014 death by suicide or undetermined intent was higher in males (n=32, 70%) than females (n=14, 30%).

Figure 6 : Proportion of suicide or undetermined injury deaths, gender, Cambridgeshire, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

The local audit data for shows a slight variation in the trend in deaths by gender compared with the national and regional data for 2013 (table 2), where the split of suicides is 78% and 77% for males and 22% and 23% for females respectively (table 1 below). Local audit data suggests a marginally lower number of male deaths and a marginally higher number of female deaths compared with the national and regional figures for a calendar year.

Table 2 : Number of suicide or undetermined deaths, 2013

	2013			
	Male		Female	
	No.	%	No.	%
England	3,684	78	1,038	22
East of England	353	77	103	23

Source: Office for National Statistics, 2013

6.1.2 Age

The national strategy for suicide prevention recognises males aged below 50 years as the group at highest risk of death from suicide, and highlights older men (aged over 75 years) as being at increased risk. Nationally the suicide rate among

teenagers is lower than for the general population, although this group are at risk of suicidal feelings and experience higher levels of self-harm[5].

In males there appears to be age groups which experienced a higher number of deaths, with peaks occurring between 18-25 years, 40-49 years and 50-59 years. The number of deaths in females is more evenly distributed across the age band.

Local data for 2014 is in line with the last national annual data set, which demonstrates the highest number of male suicides occurring among men aged between 30 and 59 years of age (table 3 below). Local data for 2014 differs with the last national annual data set, which demonstrates the highest number of female suicides occurring among those aged between 30 and 59 years of age compared with all other age groups (table 3 below).

Table 3: Number and proportion of suicides or undetermined injury, UK, 2013

Gender	Age band									
	15-29 years		30-44 years		45-59 years		60-74 years		75 years and over	
	No.	%	No.	%	No.	%	No.	%	No.	%
Males	797	16	1484	31	1583	33	672	14	322	6
Females	180	13	403	29	456	33	195	14	141	11

Source: Office for National Statistics, 2013

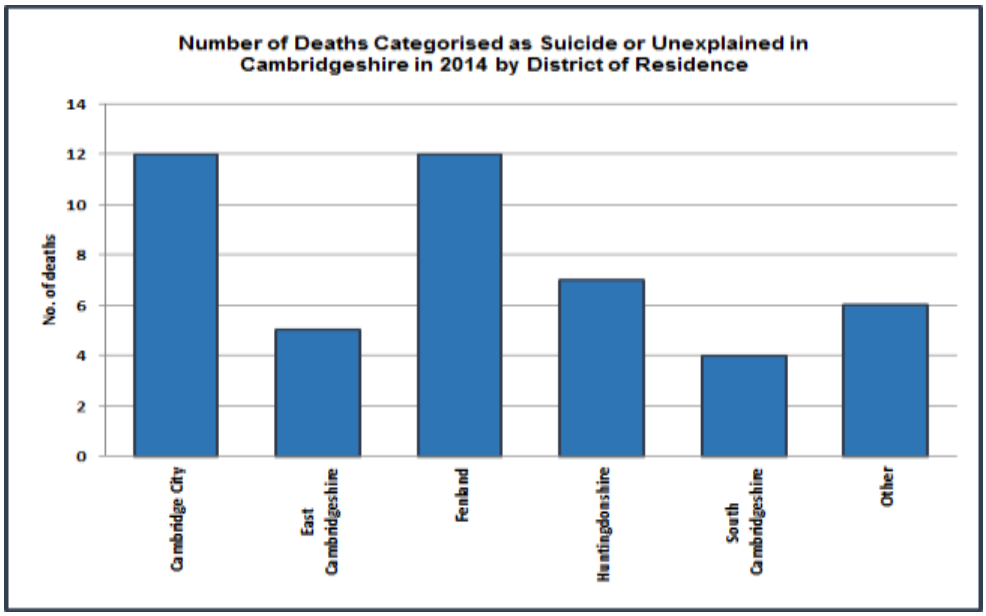
6.1.3 Date of Death

In Cambridgeshire in 2014, the largest proportion of deaths from suicide or undetermined intent occurred in the second quarter of the year (39%, n=18), during the months of April, May and June. The highest numbers of deaths were observed during the individual months of June and October.

6.1.4 Place of Residence

The chart below shows the place of residence of the deceased, with deaths of Cambridge residents occurring most frequently (n=12) and accounting for 26% of the total. This should however be considered in the context of the total population size of Cambridge compared with other surrounding localities, and a greater number of deaths may be expected for a relatively greater total population. It should be noted that almost 60% of the deaths in Fenland were people who lived in March.

Figure 7 : Number of deaths, suicide or undetermined injury by place of residence, Cambridgeshire, 2014

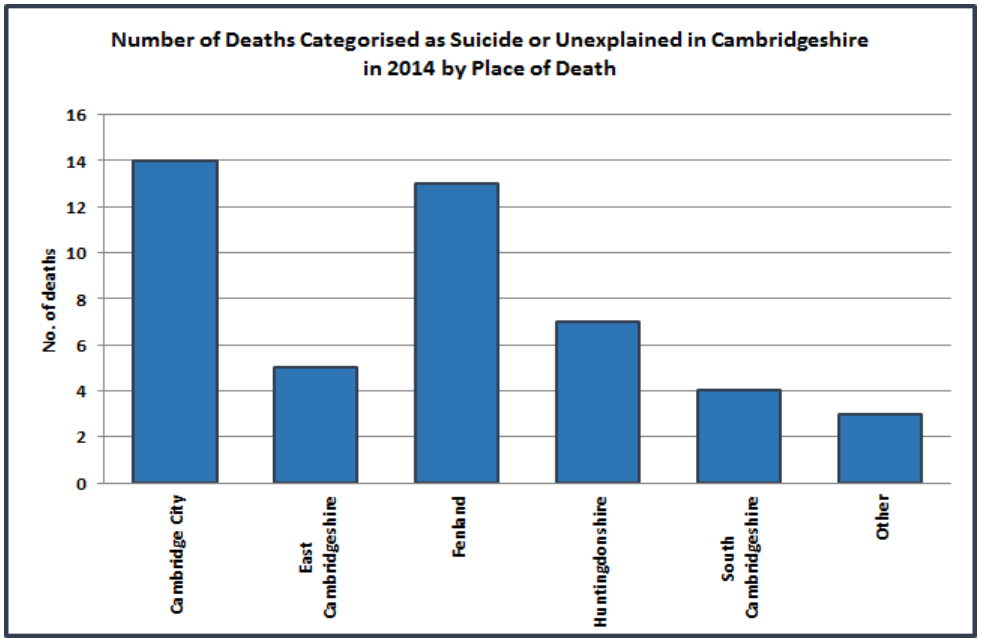


Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

6.1.5 Place of Death

Figure 8 shows the location that death occurred, with the highest number of deaths in Cambridge (n=14), accounting for 30% of the total. There were also a noticeable number of deaths in Fenland (28%). The actual location of death was not available in the audit data so it was not possible to determine the number of deaths at home or at other locations. Almost 55% of Fenland deaths occurred in March.

Figure 8 : Number of deaths, suicide or undetermined injury by place of death, Cambridgeshire, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

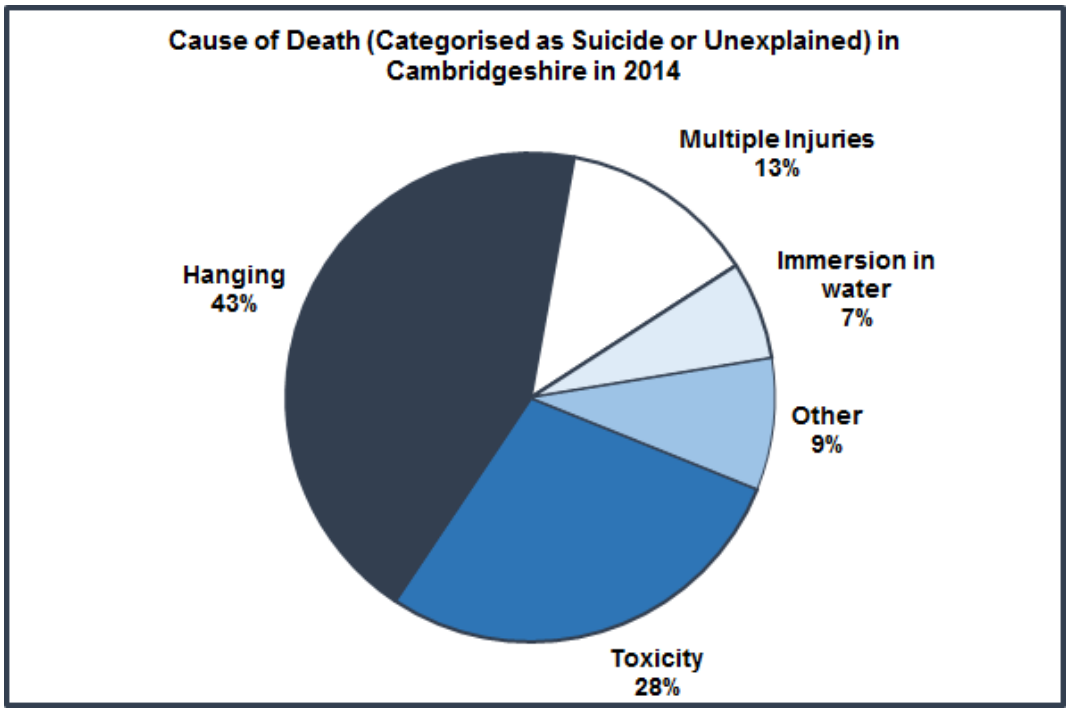
6.1.6 Cause of Death

The national strategy for suicide prevention recognises that one of the most effective ways to prevent suicides is to reduce access to high-lethality means of suicide, particularly those which are most amenable and include hanging and strangulation (especially in psychiatric and criminal justice settings), self-poisoning, suicides at high-risk locations (for example high rise buildings), and deaths on rail and underground networks[6].

The most frequently observed cause of death in Cambridgeshire in 2014 was categorised in the Coroner data as 'hanging', accounting for 43% of total deaths. The second most frequently observed cause of death was 'toxicity', which included poisoning and overdose, and accounted for 28% of deaths.

The leading causes of death were found to be consistent with the findings for each gender when considered separately. For females in Cambridgeshire in 2014 the leading cause of death from suicide or undetermined intent was toxicity (43%) and hanging (36%). Similarly for males the leading causes of death were found to be hanging (47%) and toxicity (22%).

Figure 9: Proportion of deaths, suicide or undetermined injury by cause of death, Cambridgeshire, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

Findings are consistent with the national annual data for 2013, which found in the UK that poisoning and suffocation (which includes strangulation and hanging) were the leading causes of death in suicides among females and males, as illustrated in table 4 below.

Table 4: Proportion of deaths, suicide or undetermined injury by cause of death, UK, 2013

Deaths from Suicide UK 2013		
Method	**Men %**	**Women %**
Drowning	4.1	6.3
Fall and fracture	3.3	4.0
Poison	20.2	38.2
Suffocation	56.1	40.2
Other	16.3	11.3

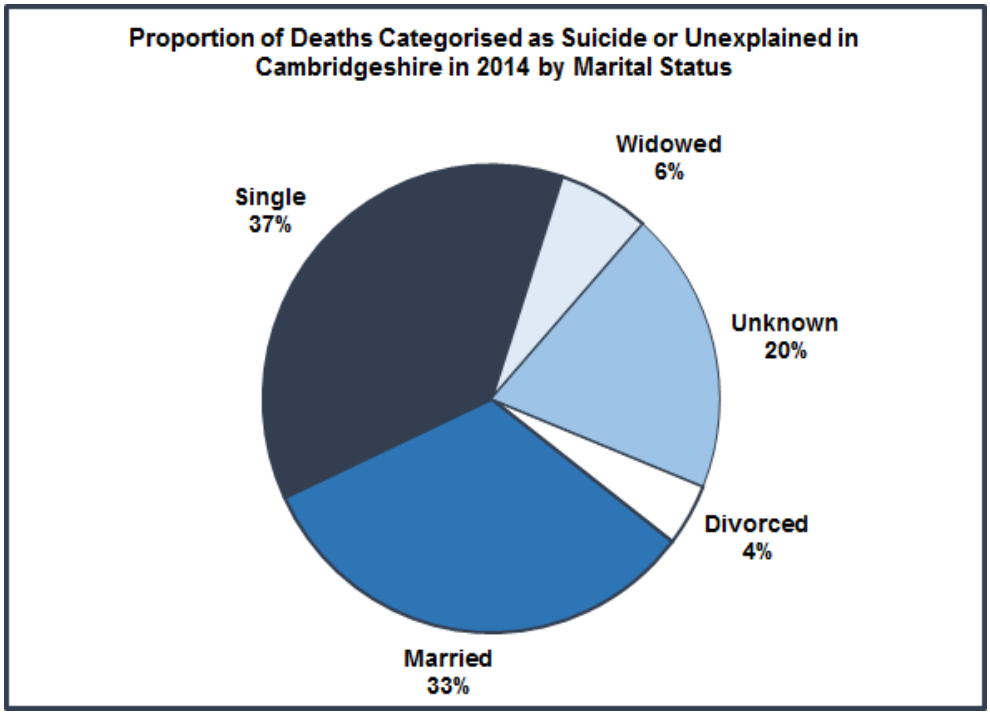
Source: Office for National Statistics, 2013

6.1.7 Marital Status

The national strategy for suicide prevention recognises family breakdown and conflict including divorce as factors which can increase the risk of suicide, particularly among men[7].

The majority of those who died as a result of suicide or undetermined intent in Cambridgeshire in 2014 were either married (33%) or single (37%) at the time of death, as illustrated below. It is important to note that some people may have been going through a relationship breakdown/separated at the time of their death, even if categorised as married.

Figure 10 : Proportion of deaths, suicide or undetermined injury by marital status, Cambridgeshire, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

6.1.8 Mental Health

The national strategy for suicide prevention recognises depression as one of the most important risk factors for suicide, and highlights that undiagnosed or untreated depression can further heighten the risk. Nationally 1 in 6 adults and 1 in 20 children are thought to suffer with depression, but only 25% (or possibly even fewer young and older people) will receive treatment despite the availability of effective psychological and pharmacological treatment approaches[8].

The Coroner's data for Cambridgeshire recorded diagnosis of depression as 'unknown' for 40 of the total 46 deaths (87%) meaning that no observations relating to this risk factor can be made.

Nationally the number of people in contact with mental health services, the number of mental health inpatients and the number of mental health patients who refused drug treatment, who are dying as a result of suicide is falling. However people with severe mental illness remain at particular risk of suicide, whilst being cared for as inpatients and in whilst living in the community. Those people who self-harm are at increased risk of suicide, with approximately 1 out of 100 people who self-harm attempting to take their own life within the following year[9].

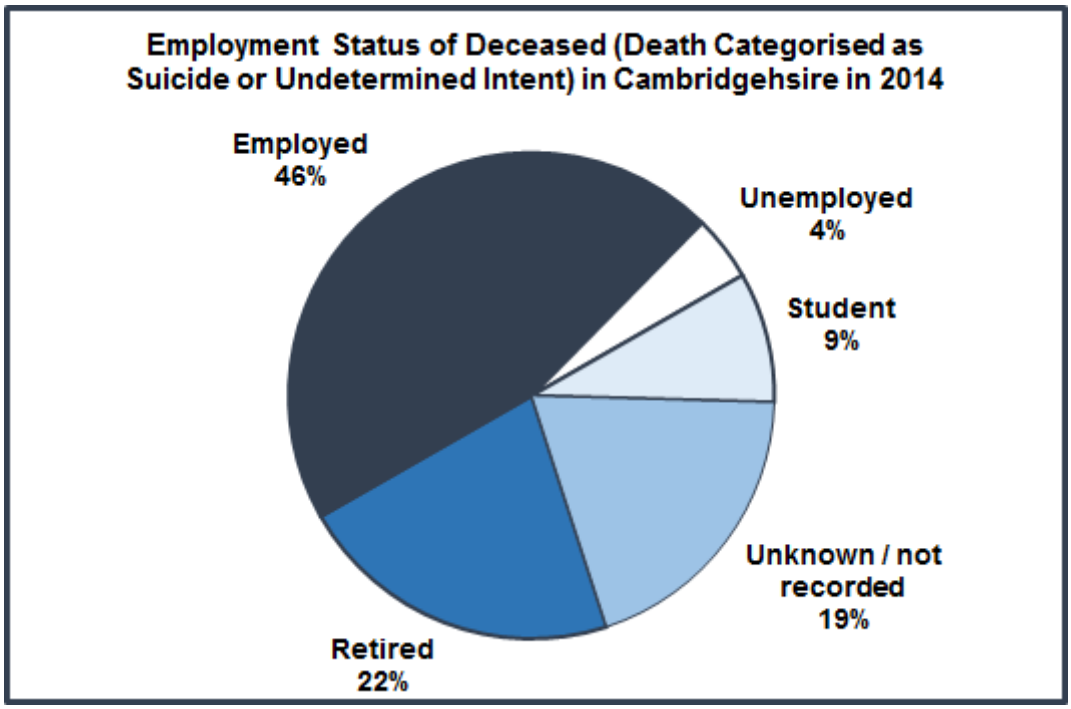
The Coroner's data for Cambridgeshire recorded the previous / existing mental health team involvement as 'unknown' for 42 of the total 46 deaths (91%) meaning that no observations relating to this risk factor can be made.

6.1.9 Occupation

The national strategy for suicide prevention highlights specific occupational groups as being at increased risk of suicide, including nurses, doctors, farmers, and other agricultural workers. Among men nationally, health professionals and agricultural workers remain at highest risk of suicide, although additional groups including construction workers and plant and machine operatives are emerging as higher risk groups. Among women nationally health workers, including doctors and nurses in particular, remain at highest risk of suicide[10].

The occupation of the deceased, as recorded in the Coroner's data, did not permit categorisation of occupation without assumptions being made. For this reason the data is used to display the employment status, as illustrated in figure 11, but is not used to categorise occupation type. Almost half of those who died as a result of suicide or undetermined intent were employed.

Figure 11 : Number of deaths, suicide or undetermined injury by employment status, Cambridgeshire, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

6.1.10 Family History of Suicide

The national strategy for suicide prevention recognises the presence of mental health problems within the family increases the risk of suicide. Friends and family members bereaved by suicide are also at a greater risk of suicide themselves, highlighting the importance of effective and timely emotional and practical support for those affected by the suicide of a close contact[11].

The family history of suicide was recorded as unknown for 100% of the deaths in the Coroner's data, meaning that no observations relating to this risk factor could be made.

6.1.11 GP Registration

The national strategy for suicide prevention highlights the vital role played by primary care, in particular GP's, in the prevention of suicides. GP's will see patients with many of the identified risk factors for suicide, and are the often the first point of contact for those experiencing depression, distress, self-harm or suicidal thoughts. Whilst patients may be managed within the primary care setting, GP's are often the link between primary care and secondary care services for mental health[12].

The majority of those who died as a result of suicide or undetermined intent in Cambridgeshire in 2014 were registered with a GP (83%)

The benefits of the deceased being registered with a GP also lie in the provision of a GP report to the Coroner following a death by suicide or undetermined intent, which can assist the Coroner in their inquest and support a more comprehensive data set.

6.2 Peterborough

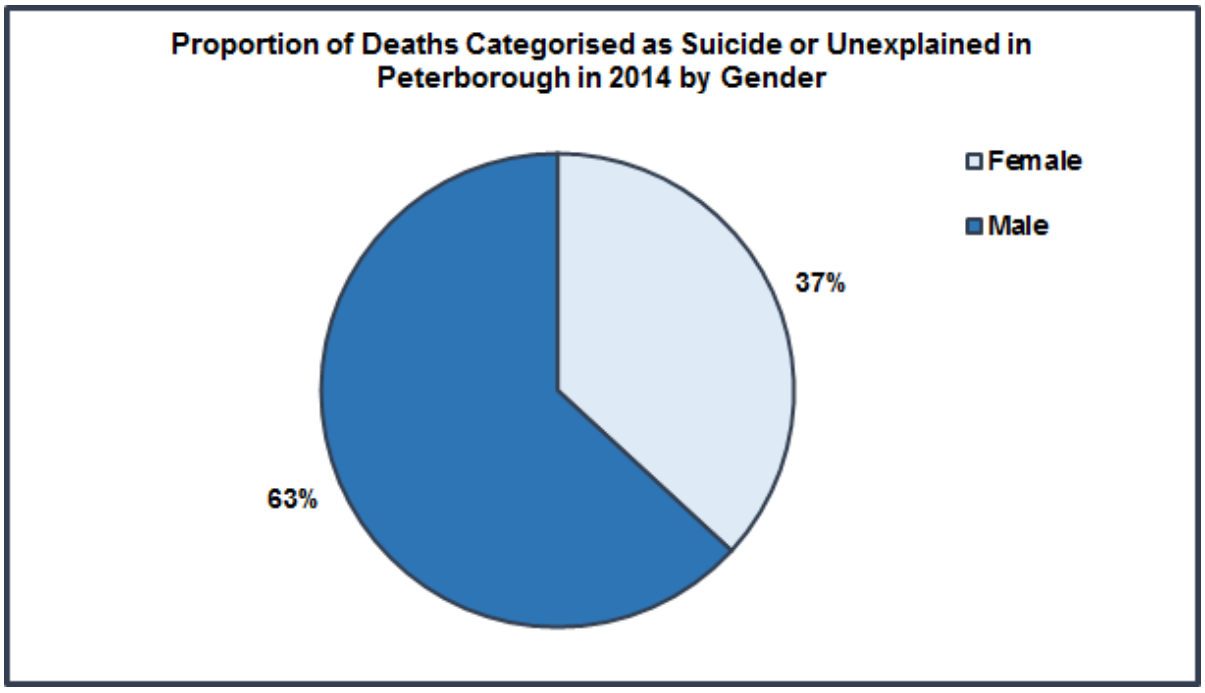
In 2014 the Peterborough Coroner's Office recorded a total of 19 deaths from suicide or undetermined intent, with the majority awaiting a formal conclusion of suicide.

6.2.1 Gender

Men are highlighted nationally as a key risk group for suicides, with men reported to be at three time's greater risk of death from suicide than women[13].

As illustrated in figure 12, across Peterborough in 2014 death by suicide or undetermined intent was higher in males (63%) than females (37%).

Figure 12 : Proportion of deaths, suicide or undetermined injury by gender, Peterborough, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

The local audit data for 2014 shows some variation in the trend in deaths by gender compared with the national and regional data for 2013, where the split of suicides is 78% and 77% male and 22% and 23% female respectively (table 5 below). Local audit data suggest proportionately lower number of male deaths to female deaths in Peterborough compared with the national and regional figures for a calendar year. It is important to be mindful of the small numbers involved, which are prone to fluctuation.

Table 5 : Number of suicide or undetermined deaths, 2013

	2013			
	Male		Female	
	No.	%	No.	%
England	3,684	78	1,038	22
East of England	353	77	103	23

Source: Office for National Statistics, 2013

6.2.2 Age

The national strategy for suicide prevention recognises males aged below 50 years as the group at highest risk of death from suicide, and highlights older men (aged over 75 years) as being at increased risk. Nationally the suicide rate among teenagers is lower than for the general population, although this group are at risk of suicidal feelings and experience higher levels of self-harm[14].

There appears to be age groups in males which experience higher numbers of deaths, with peaks occurring between 31-39 years, 40-49 years and 50-59 years. Local data for 2014 is in line with the last national annual data set, which demonstrates the highest number of male suicides occurring among those aged between 30 and 59 years of age (table 6 below).

For females the number of deaths in Peterborough is lower overall, but there is a noticeable peak in deaths which occurred among those aged 50-59 years. Local data for 2014 differs with the last national annual data set, which demonstrates the highest number of female suicides occurring among those aged between 30 and 59 years of age compared with all other age groups (table 7 below). However it should be remembered that the number of female deaths in Peterborough is particularly small and therefore comparisons with the national data should be made with caution.

Table 6: Number and proportion of suicides or undetermined injury, UK, 2013

Gender	Age band									
	15-29 years		30-44 years		45-59 years		60-74 years		75 years and over	
	No.	%	No.	%	No.	%	No.	%	No.	%
Males	797	16	1484	31	1583	33	672	14	322	6
Females	180	13	403	29	456	33	195	14	141	11

Source: Office for National Statistics, 2013

6.2.3 Date of Death

In 2014 in Peterborough, the largest proportion of deaths from suicide or undetermined intent occurred in the second quarter of the year (42%), during the months of April, May and June. The highest numbers of deaths were observed during the individual months of May, June and December.

6.2.4 Place of Residence

The majority of deaths in the audit were from Peterborough residents (68%). Other deaths were from Cambridgeshire and Peterborough prison.

6.2.5 Place of Death

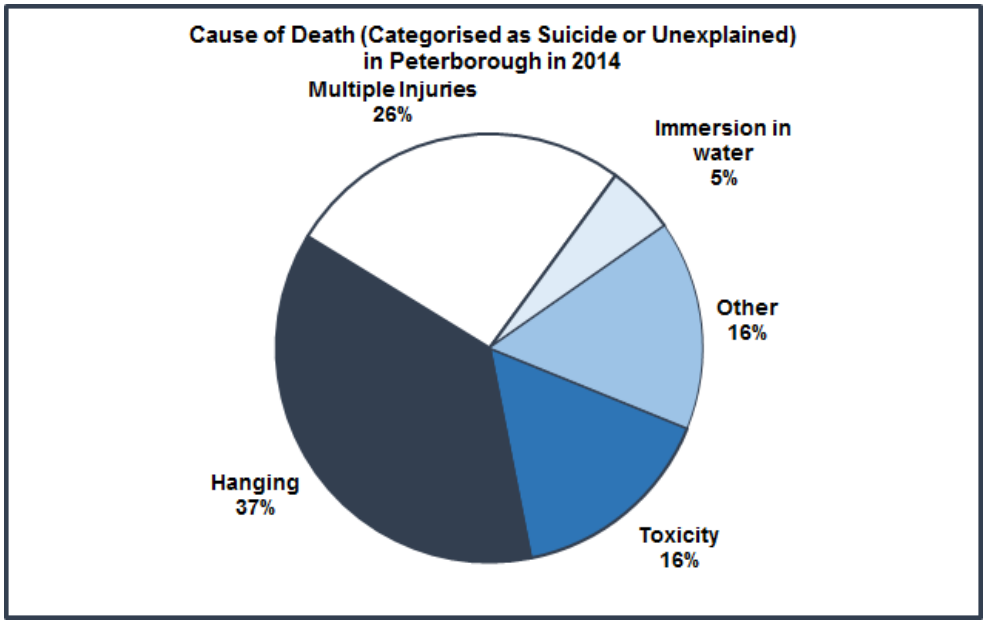
In 2014 the Coroner data reported on deaths by suicide or undetermined intent of Peterborough residents and deaths which took place in Peterborough. Of the total deaths recorded almost 80% occurred at various locations within Peterborough.

6.2.6 Cause of Death

The national strategy for suicide prevention recognises that one of the most effective ways to prevent suicide is to reduce access to high-lethality means of suicide, particularly those which are most amenable and include hanging and strangulation (especially in psychiatric and criminal justice settings), self-poisoning, suicides at high-risk locations, and deaths on rail and underground networks[15].

The most frequently observed cause of death in Peterborough in 2014 was categorised in the Coroner data as 'hanging', accounting for 37% of total deaths, followed by 'multiple injuries', (including head injuries and multiple traumas), accounting for 26% of deaths. The leading causes of death were not found to be consistent with the findings for each gender when considered separately. For females in Peterborough in 2014 the leading causes of death from suicide or undetermined intent were 'toxicity' (29%), 'multiple injuries' (29%) and 'other' including burns and asphyxia (29%). It should however be noted that the numbers of deaths were small. For males the leading causes of death were found to be hanging (58%) and 'multiple injuries' (25%).

Figure 13: Number of deaths, suicide or undetermined injury by cause of death, Peterborough, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

Findings are not consistent with the national annual data for 2013, which found in the UK that poisoning and suffocation (including strangulation and hanging) were the leading causes of death among females and males (table 7 below). Peterborough experiences a higher percentage of deaths from multiple injuries and head injuries, which are likely to result from the proportion of deaths which occur at local car parks.

Table 7 : Proportion of deaths, suicide or undetermined injury by cause of death, UK, 2013

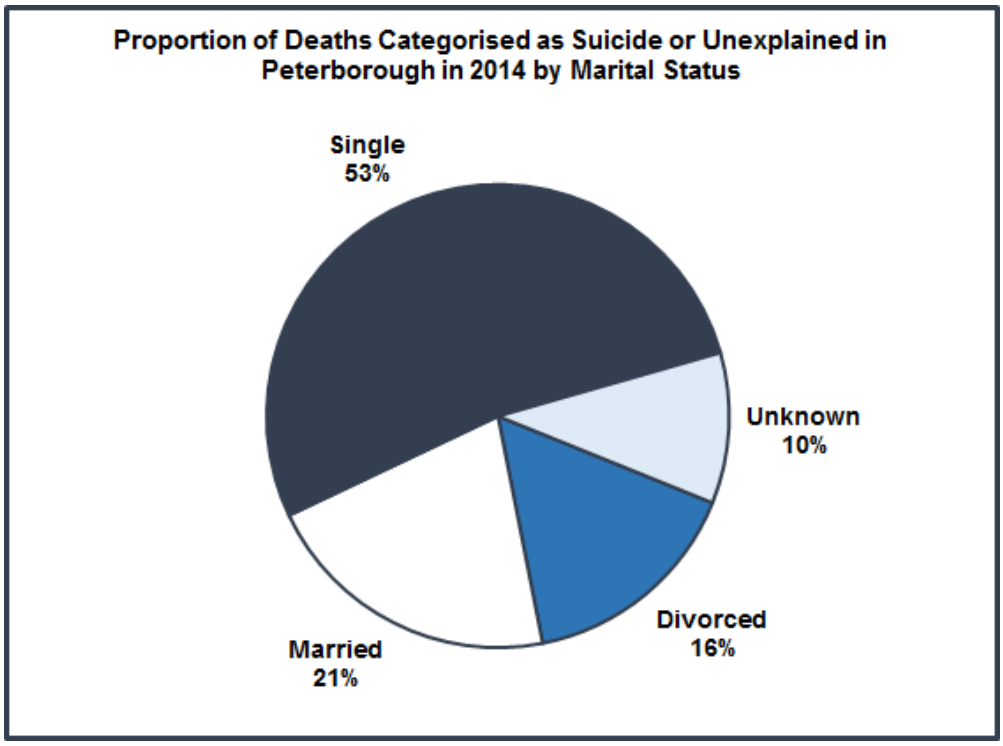
Deaths from Suicide UK 2013		
Method	**Men %**	**Women %**
Drowning	4.1	6.3
Fall and fracture	3.3	4.0
Poison	20.2	38.2
Suffocation	56.1	40.2
Other	16.3	11.3

Source: Office for National Statistics, 2013

6.2.7 Marital Status

The national strategy for suicide prevention recognises family breakdown and conflict including divorce as factors which can increase the risk of suicide, and particularly among men[16.] The majority of those who died as a result of suicide or undetermined intent in Peterborough in 2014 were either single (53%) or married (21%), as illustrated in figure 14.

Figure 14 : Proportion of deaths, suicide or undetermined injury by marital status, Peterborough, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

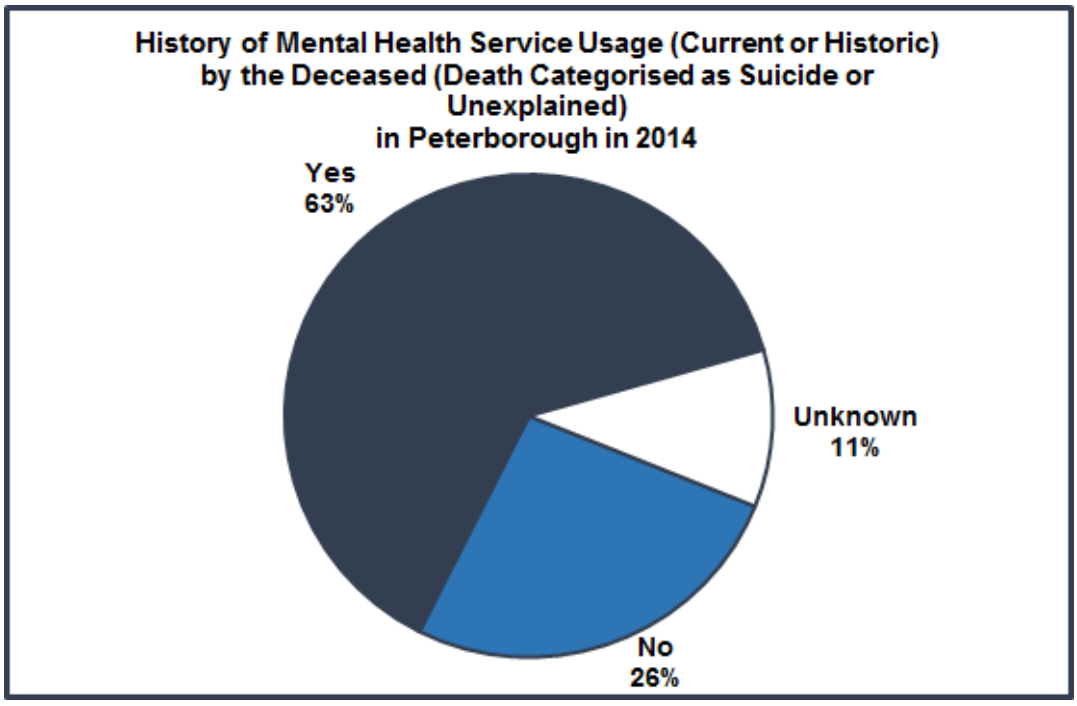
6.2.8 Mental Health

The national strategy for suicide prevention recognises depression as one of the most important risk factors for suicide, and highlights that undiagnosed or untreated depression can further heighten the risk. Nationally 1 in 6 adults and 1 in 20 children are thought to suffer with depression, but only 25% (or possibly even fewer young and older people) will receive treatment despite the availability of effective psychological and pharmacological treatment approaches[17].

The Peterborough Coroner's data provides detail of history of depression by the deceased. Of the 19 deaths a total of 12 of the deceased (63%) were recorded as having a history of depression. This number coincides with the number of deceased who were in contact with mental health services at some point prior to death, as illustrated in figure 15.

The Peterborough Coroner's data provides detail of mental health service use, which could be current (at the time of death) or could be historic. Of the total deaths in Peterborough in 2014 the number of deceased known to be current or previous users of mental health services was 12 (63%).

Figure 15 : Proportion of deaths, suicide or undetermined injury by mental health service usage, Peterborough, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

Nationally the number of people in contact with mental health services, the number of mental health inpatients and the number of mental health patients who refused drug treatment, who are dying as a result of suicide is decreasing. However people with

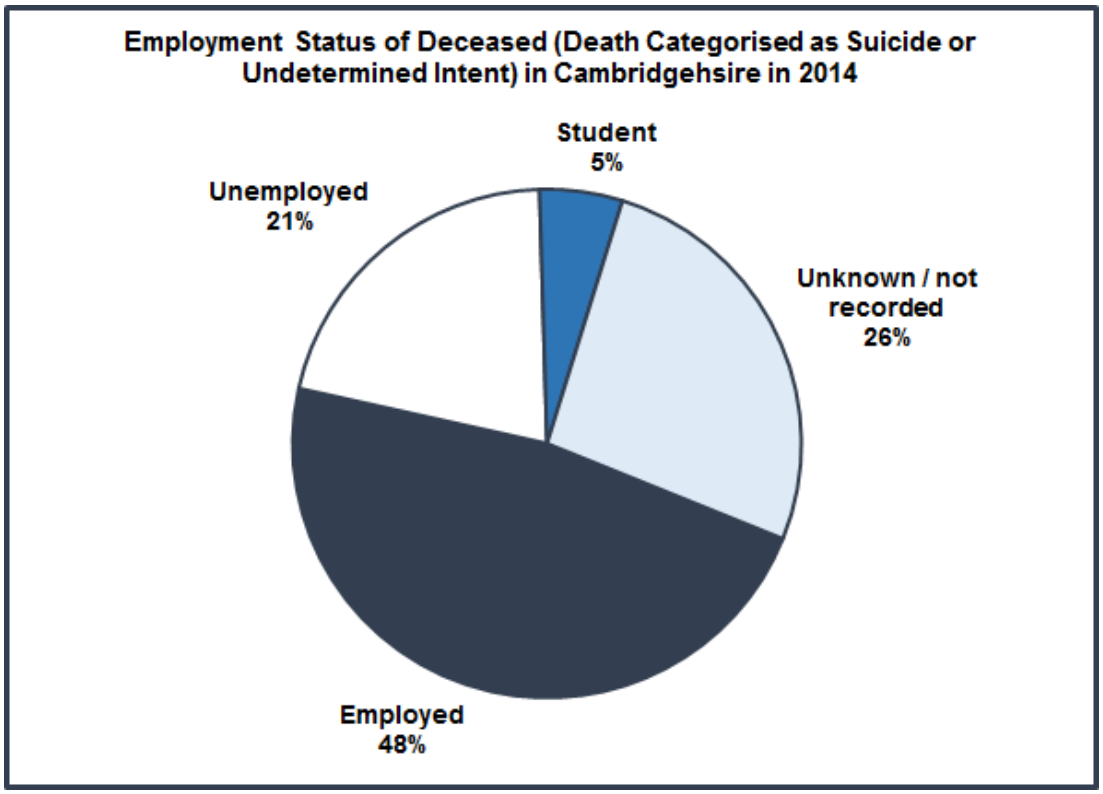
severe mental illness remain at particular risk of suicide, whilst being cared for as inpatients and whilst living in the community. Those people who self-harm are at increased risk of suicide, with approximately 1 out of 100 people who self-harm attempting to take their own life within the following year[18].

6.2.9 Occupation

The national strategy for suicide prevention highlights specific occupational groups as being at increased risk of suicide, including nurses, doctors, farmers, and other agricultural workers. Among men nationally, health professionals and agricultural workers remain at highest risk of suicide, although additional groups including construction workers and plant and machine operatives are emerging as higher risk groups. Among women nationally health workers, including doctors and nurses in particular, remain at highest risk of suicide[19].

The occupation of the deceased, as recorded in the Coroner's data, did not permit categorisation without assumptions being made. For this reason the data are used to display the employment status, as illustrated in figure 16, but are not used to categorise occupation type. Almost half of those who died as a result of suicide or undetermined intent were employed.

Figure 16 : Number of deaths, suicide or undetermined injury by employment status, Peterborough, 2014



Source : Suicide and Undetermined Injury Audit, Cambridgeshire and Peterborough, 2014

6.2.10 Family History of Suicide

The national strategy for suicide prevention recognises that the presence of mental health problems within the family increases the risk of suicide. Friends and family members bereaved by suicide are also at a greater risk of suicide themselves, highlighting the importance of effective and timely emotional and practical support for those affected by the suicide of a close contact[20].

The family history of suicide was recorded as unknown or not known for 79% of the deaths in the Coroner's data, meaning that no observations relating to this risk factor could be made.

6.2.11 GP Registration

The national strategy for suicide prevention highlights the vital role played by primary care, in particular GP's, in the prevention of suicides. GP's will see patients with many of the identified risk factors for suicide, and are the often the first point of contact for those experiencing depression, distress, self-harm or suicidal thoughts. Whilst patients may be managed within the primary care setting, GP's are often the link between primary care and secondary care services for mental health[21].

The majority of those who died as a result of suicide or undetermined intent in Peterborough in 2014 were registered with a GP (69%). Despite this, the proportion GP registered is lower than in Cambridgeshire and nationally. The benefits of the deceased being registered with a GP also lie in the provision of a GP report to the Coroner following a death by suicide or undetermined intent, which can assist the Coroner in their inquest and support a more comprehensive data set.

7.0 Limitations of the audit in 2014

There are a number of limitations which should be acknowledged in relation to the content of this audit and the processes used in compiling it. These limitations are discussed in turn here and are used to inform the recommendations which follow, for improving the annual audit going forwards.

7.1 Detail of Coroner Data

On a quarterly basis the Coroner's Offices for Cambridgeshire and Peterborough supply a routine data set pertaining to deaths from suicide and undetermined intent, which is supplied against pre-agreed data fields. Through this audit process it has become apparent that there is scope for the improvement in the level of detail of the data supplied in relation to the following fields specifically:

- Location of death

Location of death is currently captured within the routine data set, but in many cases is provided as a geographical location only, for example the name of the town or city in which the death occurred. In order to support the implementation of local suicide

prevention work it would be beneficial for data to provide a quarterly alert of any specific locations from which suicides are taking place (for example a railway line or a tall building) so that timely and effective preventative interventions may be implemented.

- Occupation

The relevance of occupation as a risk factor for suicide has been discussed in the main body of this audit. The Coroner data in its current form has allowed for the useful consideration of employment status but did not facilitate the allocation of the deceased into specific occupation groups without the introduction of assumptions. In order to support local suicide prevention work the introduction of reporting against pre-determined occupational groupings would be beneficial.

- Mental health history

In many cases the history of depression and the current or previous mental health service use is recorded in the Coroner data as 'unknown', and this is likely to be as a result of insufficient data provision to the Coroner at the time of death, either by primary or secondary care services. It is vital that quarterly data informs local prevention work by highlighting opportunities that may have arisen at which point preventative or supportive measures may have led to an alternative outcome.

- Family History of Suicide

The relevance of a family history of suicide has been discussed in the main body of the audit. This data field is often recorded as unknown in the Coroner data, and this may information may not always be straight forward for the Coroner to capture given that they are reliant on the provision of information of this nature from the witness statements of family and friends.

7.2 Data Availability

There are a number of additional risk factors for suicide which are recognised in the national suicide prevention strategy, but which are not currently recorded within the locally produced quarterly data set. These include the following:

- Whether the deceased had a history of self-harm, and this is of particular relevance in the event of a death of a young person
- Whether the deceased had previously attempted suicide and the timescale of any previous suicide attempts
- Whether the deceased was suffering from depression which was not being managed at the time of death either within the primary or secondary care setting
- Whether the deceased suffered from issues with substance abuse
- Whether the deceased was subject to any financial difficulties prior to death

- Whether the deceased was experiencing any relationship or marital difficulties prior to death
- Whether the deceased had previously been the victim of abuse and the nature of this abuse
- Whether the deceased was a veteran

Clearly some of these risk factors are highly sensitive and the means of collection of this information would require careful consideration and agreement at a local level. However, the opportunity to acquire more detailed knowledge of the local risk factors for suicide would greatly assist in the development and implementation of local preventative and supportive interventions.

In future it would also be useful to see the following data/analysis, dependent on data availability:

- Ethnicity
- Socio-economic status
- Major health issues or long term conditions
- Contributing factors – e.g. recent bereavement, loss of job, relationship breakdown
- Contact with health service in last month
- Known to mental health services in last 12 months
- Alcohol/drug addiction
- Occupation by category e.g. health care worker

7.3 Use of Coroner Data v's Coroner Case Files

For the purpose of this audit the routine quarterly data sets supplied by the Coroner's Offices for Cambridgeshire and Peterborough were used. In order to compare the level of data and information that would be available by auditing the Coroners case files directly, a sample of 5 case files were analysed. The case file review suggests that a far richer level of data may be available from direct file review, and in particular information relating to the following was available:

- Place of birth, and for those born outside of the UK details of length of stay in the UK
- Toxicology report which details the findings of any toxic agents identified through the post mortem process.
- Witness statements from family and close contacts, which provide valuable details relating to;
    - History of depression
    - History of substance misuse
    - Details of relationship or marital difficulties
    - Details of financial and employment difficulties
    - History of abuse and bullying
    - History of self-harm and previous suicide attempts

- GP statement, which provide valuable information relating to;
- Mental health history, including history of depression, antidepressant therapy and the use of psychological interventions
- Physical health history
- Additional personal details which can supplement or corroborate other witness statements from family and close contacts

It should be noted that the amount of time required to review 5 sets of case files was 4 hours. The total number of deaths included as part of this 2014 audit was 65, meaning that if all case files had been reviewed this could be expected to take 7 working days of time. The potential benefits of the supplementary information in relation to the delivery of prevention work should be considered in the context of the time required to undertake the task. This should be considered and agreed by partners at a local level.

8.0 Other forums where suicide and undetermined intent deaths are reported

8.1 Child Death Overview Panel

The Child Death Overview Panel (CDOP) carries out a multiagency review of all deaths on a child under the age of 18 years in Cambridgeshire and Peterborough, including deaths by suicide and undetermined intent. There is currently no formal process for partnership working between the CDOP and the local Suicide Prevention Group, which may be an opportunity to explore in order to ensure shared learning and a coherent local approach to the prevention of preventable deaths of children.

8.1.1 Learning from the Child Death Overview Panel (CDOP) Report on Under 18's Suicides in Cambridgeshire 2014[22]

In December 2014 the CDOP panel were presented a report titled 'Overall Summary Report of the outcome of the CPFT serious incident investigations in relation to the suicides of 3 young people in Cambridgeshire'.

The key findings/ recommendations were:

- There needs to be further awareness raising through the CCG medicines management team to GPs around the safe prescribing of medicines to young people with anxiety/depression/mental health issues. The type of medication and quantities should be reviewed. For example, propranolol was prescribed for anxiety – 56 tablets at a time on a repeated prescription (there is no reference in NICE for prescribing this dug for anxiety in young people).

- Professionals should ensure safety plans are in place and work with families where appropriate to highlight the importance of safety plans. This is particularly important with regard to reducing access to the means of suicide. For example, ensuring medicines cabinets are kept locked.

- The case discussions highlighted the need to build resilience in schools to combat bullying.

- Access to services in rural locations needs consideration, especially if a young person requires a parent to take time off work in order to take them to an appointment. For example, loss of earnings is an issue.

8.2 Process for Investigation of Serious Incidents

The death of a client, who has been under the care of the Cambridgeshire & Peterborough NHS Foundation Trust (the local provider of secondary care mental health services), prompts an automatic Serious Incident (SI) review. These SI reports may provide an additional element to the annual audit of suicides in Cambridgeshire and Peterborough but there is currently no process in place for sharing this information.

9.0 Conclusion

People who take their own life are often known to mental health services, are usually registered with a GP and will often be in employment. This reaffirms the need to identify those at risk, and to ensure every opportunity and contact is utilised to full effect to deliver timely and effective supportive interventions to prevent unnecessary loss of life.

10.0 Recommendations

As a result of this work the following recommendations are made for the improvement of the local quarterly data set, to inform local prevention work, and for the enhancement of the annual audit in future:

Recommendation 1	The development and use of locally agreed data codes for place of death, occupation and cause of death would assist in improving data quality
Recommendation 2	The use of locally developed and standardised data capture proformas, for use with GP's and next of kin, could improve the breadth of the data captured in relation to additional risk factors for suicide and improve data accuracy
Recommendation 3	Cambridgeshire and Peterborough Clinical Commissioning Group should ensure that there are robust processes for sharing learning from Serious Incident reports supplied by commissioned mental health providers, to maximise the opportunities to prevent further deaths from suicide and undetermined intent
Recommendation 3	Serious Incident reviews are initiated by secondary care mental health service providers, following the death of a patient. Consideration should be given to the introduction of a similar process for those patients whose depression was managed in a primary care setting, to ensure lessons are learnt in order to prevent further deaths from suicide and undetermined intent
Recommendation 4	For future annual audits of deaths from suicide or undetermined intent the benefits of directly reviewing the case files should be considered when agreeing the approach to be taken. A combined approach, utilising the routine data set and a review of a sample of case files may be feasible, and would provide an added depth to the information which may enhance learning and the identification of opportunities to prevent further deaths in the future
Recommendation 5	The findings of previous annual audits should be briefly reviewed in subsequent annual audits. As additional years of local audit data become available, it should be used to calculate audit-derived, age-standardised death rates, which will allow direct comparison to the national data set and subsequent assessment of the accuracy of the local audit data.

REFERENCES:

[1] HM Government *Preventing Suicide in England: A cross-government outcomes strategy to save lives* (2012) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216928/Preventing-Suicide-in-England-A-cross-government-outcomes-strategy-to-save-lives.pdf

[2] Cambridgeshire County Council, Peterborough City Council & Cambridgeshire CCG *Joint Cambridgeshire and Peterborough Suicide Prevention Strategy 2014-17* http://www.cambridgeshire.gov.uk/download/downloads/id/2941/suicide_prevention_strategy

[3] Cambridgeshire County Council, Peterborough City Council & Cambridgeshire CCG *Joint Cambridgeshire and Peterborough Suicide Prevention Three Year Action Plan 2014-17*

[4-21] HM Government *Preventing Suicide in England: A cross-government outcomes strategy to save lives* (2012) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216928/Preventing-Suicide-in-England-A-cross-government-outcomes-strategy-to-save-lives.pdf

[22] Child Death Overview Panel (CDOP) Report on Under 18's Suicides in Cambridgeshire 2014