MANCHESTER 1824
The University of Manchester

National Confidential Inquiry into Suicide and Homicide by People with Mental Illness

Making Mental Health Care Safer

Annual Report and 20-year Review, October 2016

HQIP
Healthcare Quality Improvement Partnership

THE INQUIRY IS COMMISSIONED BY THE HEALTHCARE QUALITY IMPROVEMENT PARTNERSHIP (HQIP)

The Mental Health Clinical Review Outcome Programme, delivered by the Inquiry, is commissioned by the Healthcare Quality Improvement Partnership (HQIP) on behalf of NHS England, NHS Wales, the Scottish Government Health and Social Care Directorate, the Northern Ireland Department of Health, the States of Guernsey and the States of Jersey.

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

Contents

FOREWORD

Our annual report is the point in each year when we assess progress on safety in mental health care across the UK. It provides the latest figures on tragic events – suicides, homicides and sudden deaths – and highlights the priorities for safer services. We aim to reflect the concerns of patients, families and staff; this year's report highlights acute care, economic adversity and recent migrants.

This year we are also looking back on 20 years of data collection, drawing on previous reports and journal papers. What have we learned? How has the challenge of managing risk changed? From our studies of mental health services, primary care and accident and emergency departments, we present the essential evidence-based elements of safer care.

In publishing this report we need to thank the clinical staff who have responded to our requests for information; their cooperation has been crucial. We also want to acknowledge the thousands of lost lives and devastated families that lie behind our statistics. This 20 year report, aiming to improve future prevention, is dedicated to them.

LOUIS APPLEBY
DIRECTOR OF THE NATIONAL CONFIDENTIAL INQUIRY

The highest priority of health services should be the safety of patients in their care. Users of our mental health services are entitled to expect the protection they need, and all patients and service users should be protected from avoidable harm. Often risks are challenging to assess, as is the effectiveness of different interventions. Safe practice can only be achieved by adopting a rigorous learning culture. That is why the work of the National Confidential Inquiry over the last 20 years has been so valuable; it offers the objective evidence which can help in identifying what works and what needs to be fixed, both in mental health and across healthcare generally. Therefore its continuing work in this field, marked by this report, deserves our enthusiastic support, and even more importantly, our attention to the lessons it offers.

SIR ROBERT FRANCIS QC

Service users deserve safe care. Findings from the National Confidential Inquiry over the last 20 years have helped to protect patients, and should be incorporated into the routine care provided to all people seen by mental health services.

PAUL FARMER
MIND

KEY FINDINGS

RECENT FIGURES

Suicide numbers and rates

1. In this report we are presenting findings relating to people who died by suicide in 2004-2014. Suicide rates in the UK countries have followed different patterns during this period. In general rates have risen since the 2008 recession except in Scotland where there has been a sustained fall. The rate in England now appears to be falling. The highest rate is in Northern Ireland.

2. There is variation also within each country, by geographical area. In England this variation is systematic, with higher rates in the north and south-west, and lower rates in London and adjacent south central areas.

3. There continues to be wide variation in suicide rates in each country by age and gender, with the highest rates in men in middle age. The highest male to female ratio is in Northern Ireland.

4. The number of suicides by mental health patients in the UK has risen in recent years, mainly as a result of increases in England. This primarily reflects the large rise in the number of people under mental health care in England. During 2004-14, 28% of suicides in the UK general population were by people under mental health care, a total of 18,172 deaths over the study period.

In-patient suicides

5. Suicide by mental health in-patients continues to fall, most clearly in England where the decrease has been around 60% during 2004-14. This fall began with the removal of ligature points to prevent deaths by hanging but has been seen in suicides on and off the ward and by all methods. Despite this success, there were 76 suicides by in-patients in the UK in 2014, including 62 in England.

Crisis resolution/ home treatment

6. Crisis services providing an alternative to hospital admission are an established part of mental health care in all UK countries. We have been able to study in detail suicides under crisis resolution/home treatment (CRHT) teams in England. There are now around three times as many suicides by CRHT patients as in in-patients, over 200 per year, although after a rise in our report last year there has been no further increase in 2014.

7. A third of CRHT patients who die by suicide have been under the service for less than one week. A third have been discharged from hospital in the previous two weeks. 43% live alone. These features suggest that CRHT may not have been a suitable setting for their care and raise concerns that CRHT has become the default option for acute mental health care because of pressure on other services, particularly beds.

Suicides after discharge from hospital

8. The first three months after hospital discharge continue to be a period of high suicide risk. In England the number of deaths rose to 200 in 2014 after a fall in the previous year. Risk is highest in the first two weeks post-discharge: in a previous study we have shown that these deaths are associated with preceding admissions lasting less than 7 days and lack of care planning. There has been a fall in post-discharge deaths occurring before first service contact, suggesting recognition of the need for early follow-up.

9. In total there were around 460 patient suicides in acute care settings – in-patient and post-discharge care and crisis teams - in the UK in 2014.

Contents

Methods of suicide

10. The commonest suicide method used by patients is hanging, a method that is hard to prevent outside institutional settings, with self-poisoning the second most common. The type of drug most often taken in fatal overdose in all UK countries is opiates, including both prescribed and illicit drugs, although the number of opiate deaths fell in 2014. Jumping from a height or in front of a train is the third most common method - suggesting the need for mental health services to address the physical safety of their local environment.

Alcohol and drug misuse

11. Over half the patients who died by suicide had a history of alcohol or drug misuse. There were national differences, with alcohol misuse a more common antecedent of suicide in Scotland and Northern Ireland, drug misuse more common in Scotland. However, a much smaller group was in contact with specialist substance misuse services.

Economic adversity

12. There is evidence that economic factors are becoming more common as antecedents in patient suicides. Unemployment and homelessness have increased and 13% of patients who died by suicide had experienced serious financial difficulties in the previous 3 months.

Recent UK residents

13. 5% of patients who died by suicide were people who had been living in the UK for less than five years, 87 deaths per year. This figure includes 20 people over four years who were seeking permission to stay in the UK. There were no clear clinical differences from other patients who died, though some features suggested more severe illness and greater social adversity.

Patient homicide

14. During 2004-14, 11% of homicides in the general population were by mental health patients, a total of 870 cases over the study period. The number of patient homicides has been relatively stable in the last few years, in contrast to figures for homicide in the general population which have fallen steadily.

15. In England the number of homicides by patients with schizophrenia appears to have risen since 2009, although relatively small numbers make it difficult to confirm a clear pattern. A related rise may have occurred in "dual diagnosis" patients, i.e. people with severe mental illness and drug or alcohol misuse.

16. Most patients who committed a homicide had a history of alcohol and drug misuse - this was found in all UK countries but more common in Scotland and Northern Ireland.

Sudden Unexplained Death

17. There were 13 sudden unexplained deaths in mental health in-patients in England and Wales in 2014, the lowest figure we have recorded since an unusually low number in 2008, which was followed by a high of 34 deaths in 2010. The number of SUD cases in people under 45 was 8 per year on average during the study period but may have fallen in recent years.

LESSONS FROM 20 YEARS OF THE NATIONAL CONFIDENTIAL INQUIRY

Trends in patient suicide

18. The number of patient suicides in the UK, driven by figures from England, has risen over 20 years. However, the patient suicide rate, i.e. taking into account increases in the number of people under mental health care, has fallen. The calculation is not straightforward, however, being complicated by inconsistent estimates of total patient numbers and a changing clinical population.

19. The trend in individual settings is clearer. The main setting for suicide prevention is now the crisis team, following a substantial fall in in-patient suicides and a rise in the use of CRHT as an alternative to admission in acute care. The fall in suicides after leaving in-patient care has been less substantial and the post-discharge period, especially the first two weeks, continues to be a time of high risk.

Changing patterns of suicide

20. The clinical and social characteristics of patients who die by suicide show a number of changes over the last 20 years. Certain risk factors have become more common as antecedents of suicide - these are the factors that services have to address to reduce risk. They include:
— isolation
— economic adversity
— alcohol and drug misuse
— recent self-harm

21. Non-adherence to medication in the period leading to suicide has become less common; loss of contact is less frequent than 20 years ago but continues to be a common antecedent.

Trends in patient homicide

22. Patient homicide numbers in the UK have fluctuated over the last 20 years but have not kept pace with the steady fall in homicide in the general population, suggesting the need for specific clinical measures. On the basis of our evidence over 20 years, two interventions are crucial:
— services for drug and alcohol misuse, and "dual diagnosis"
— services to maintain engagement with patients who are likely to lose contact

Safer services

23. We have studied the relationship between changes in service provision over 20 years and suicide rates in mental health services. Box 1 summarises our evidence for service features that are associated with reduced patient suicide.

CLINICAL MESSAGES

24. Our findings suggest a number of priorities for mental health services in improving safety. These should be taken up by mental health providers, commissioners, clinical staff, training organisations, regulators and health service leaders.

Acute care	**25.** Crisis teams are unlikely to be a safe setting for patients at high risk or who live alone. The use of crisis teams or CRHT should be kept under regular review. **26.** Services should ensure that patients are followed up within 2-3 days of hospital discharge and that care plans are in place.
Alcohol and drug misuse	**27.** Specialist alcohol and drug services should be available, with the ability to manage clinical risk, working closely with mental health services, with agreed arrangements for "dual diagnosis" patients.
Restricting suicide methods	**28.** Opiate analgesics should be subject to safer prescribing in primary care and accident and emergency departments, i.e. reduced use, short-term supplies.
New groups at risk	**29.** Mental health services should be aware of the changing nature of patients at risk of suicide, i.e. economic problems, recent immigration, isolation and be able to work with services with specialist expertise in these areas.
Self-harm	**30.** Liaison psychiatry teams offering 24 hour specialist psychosocial assessment and follow-up should be available, with specific arrangements for people under mental health care.
Avoidable deaths	**31.** The service features in Box 1 should be available, reflecting our evidence over 20 years of data collection.

Box 1: Key elements of safer care in mental health services

Key elements of safer care in mental health services:

1. Safer wards
   - Removal of ligature points
   - Reduced absconding
   - Skilled in-patient observation
2. Care planning and early follow-up on discharge from hospital to community
3. No 'out of area' admissions for acutely ill patients
4. 24 hour crisis resolution/home treatment teams
5. Community outreach teams to support patients who may lose contact with conventional services
6. Specialised services for alcohol and drug misuse and "dual diagnosis"
7. Multidisciplinary review of patient suicides, with input from family
8. Implementing NICE guidance on depression and self-harm
9. Personalised risk management, without routine checklists
10. Low turnover of non-medical staff

Key elements of safer care in the wider health system:

1. Psychosocial assessment of self-harm patients
2. Safer prescribing of opiates and antidepressants
3. Diagnosis and treatment of mental health problems especially depression in primary care
4. Additional measures for men with mental ill-health, including services online and in non-clinical settings

PRESENTATION OF FINDINGS AND METHODOLOGY

Definitions

Patients

32. Patient cases are defined as those in contact with psychiatric, drug and alcohol, child and adolescent or learning disabilities services (if they are within mental health services) within 12 months of their death or the homicide, with their care usually under a Consultant Psychiatrist. These include a range of patients from those seen for one-off assessments to those who had been under the long term care of services.

Suicide

33. General population suicides are defined as deaths by intentional self-harm and deaths of undetermined intent by individuals aged 10 and over.

Homicide

34. General population homicides are defined as convictions for murder, manslaughter, (culpable homicide in Scotland), infanticide, and verdicts of not guilty by reason of insanity and unfit to plead and are presented by year of conviction. Identification of mental illness in non-patients relies on information from psychiatric reports prepared by psychiatrists for the court.

Sudden unexplained death (SUD)

35. A sudden unexplained death is defined as a death in which a person dies a) from an unknown, uncertain or cardiac cause (other than confirmed myocardial infarction), b) within 1 hour of symptom onset.

Changes to suicide death coding

36. Following an update to the International Statistical Classification of Diseases and Related Health Problems (ICD-10) in 2011, new rules for coding drug misuse deaths were introduced. Some drug-related deaths previously coded as due to 'mental and behavioural disorders due to psychoactive substance use' are now coded as suicide or undetermined deaths. Analysis by the Office for National Statistics (ONS) has shown these new coding rules have had no significant impact on the suicide figures in England.[1] However, they have affected numbers in Scotland and therefore the overall numbers of suicides in Scotland between 2011 and 2014 are not directly comparable with previous years. For Scotland, the number of suicides using the new coding rules is reported and we also estimate what the figures for 2011-2014 would have been following the old coding rules. In some of the figures of longitudinal trends, we show data using both old and new rules.

Annual report period

37. In this report, findings are presented for England, Northern Ireland, Scotland, and Wales for:
— suicide (based on date of death - **this differs from the ONS who present figures by date of death registration**).
— homicide (based on year of conviction)
— SUD (this data collection takes place in England and Wales only and is based on date of death)
— homicide-suicide (based on date of offence, England and Wales only)

38. The main findings are presented for the baseline year of 2004 and the subsequent 10 years including the most recent year (2014). Additional longitudinal analysis is presented for the period 1998-2014.

Method of data collection

39. The Inquiry method of data collection is similar across all UK countries. Briefly, to identify patients (i.e. individuals in contact with mental health services within 12 months of suicide or homicide) national data are used to identify the individuals' addresses. Data are then sent to mental health services in each individual's district of residence. Detailed clinical data are obtained for these individuals via questionnaires sent to the consultant psychiatrist who had been responsible for the patient's care. A full explanation is provided in the **FAQ section of our website** or in our previous national reports: Annual Report (2009, 2010)[2,3], Avoidable Deaths (2006)[4] , Suicide and Homicide in Northern Ireland[5] , and Lessons for Mental Health Care in Scotland[6] which are accessible on our website at:
www.research.bmh.manchester.ac.uk/cmhs/research/centreforsuicideprevention/nci

Suicide

Data completeness

40. For the period 2004-2013 overall data completeness for patient suicide is 96% in England, 97% in Wales and Northern Ireland, and 98% in Scotland. Completeness is lower in the more recent years reported, reflecting the time required to process the data. For example, in 2013 and 2014 completeness for England is 89% and 65% respectively. For the three most recent years (2012-2014) of the patient suicide analysis completeness is below 99% and we have, therefore, uplifted the number of cases based on the expected final return of Inquiry questionnaires for the previous eight years (2004-2011).

41. The number of patient suicides in 2014 in Northern Ireland show a marked fall - we have not received data from all sites in Northern Ireland and therefore the estimated figures for 2014 should be viewed with caution.

42. There have been recent delays in death registrations in Wales that have affected our data collection. Figures obtained from Wales for 2014 are therefore underestimated and trends based on 2014 figures are not reliable.

Homicide

43. For the period 2004-2014 we have presented patient homicide numbers notified to the Inquiry plus additional cases which account for questionnaires sent to Trusts/ Health Boards but not returned at the time of analysis. For 2014 in England and Scotland, patient homicide data completeness is lower than other years reflecting the time required to process the data. We have therefore uplifted the number of cases in 2014 based on the expected final return of Inquiry questionnaires.

44. We have been working with colleagues at Greater Manchester Police to improve the completeness of homicide conviction data for individuals suspected of homicide in England and Wales. Using information recorded on the Police National Computer, we confirmed an additional 444 convictions between 2004-2014 where the suspect's outcome was previously recorded as 'unknown' or 'proceedings pending' on the Homicide Index. Consequently, data on general population homicide will be higher than presented in previous Inquiry reports.

45. We are aware that data on homicide convictions for Scotland previously provided to us may be incomplete, therefore the figures presented may be an underestimate. Offender data relating to previous convictions were less complete due to a delay in the renewal of the data sharing agreement with the Scottish Police Service.

Sudden unexplained death

46. For the period 2004-2013 overall data completeness for SUD is 99% in England and Wales. For 2014 completeness is 75% and we have therefore uplifted the number of cases based on the expected final return of questionnaires for the previous 10 years.

Psychiatric reports

47. Our figures for patient homicide are based on service providers records only. In addition we obtain psychiatric reports and use these for our figures on abnormal mental state and symptoms of psychosis at the time of the offence, diagnosis history of schizophrenia, and history of alcohol and drug misuse, whether the offender was a patient or not. The number of psychiatric reports undertaken and disclosed in court has fallen over the report period. We assume that those with serious mental illness, particularly psychosis, are more likely to have been assessed, but there is no direct way of confirming this. However, of the people we know to have serious mental illness (i.e. patients with schizophrenia) nearly all (91%) had a psychiatric report. We therefore think it is probable that non-patients with serious mental illness will also have a psychiatric report. We acknowledge that these figures may be underestimated.

Contents

Analysis

48. To examine for statistically significant time trends, trend tests were carried out using categorical data methods in Stata v13.[7] Poisson models were fitted with the number of suicides or homicides per year as the outcome and year as a linear predictor. For rates, general population per year was the exposure. Within the patient sample, the exposure was the total number of suicides or homicides per year. Tests for trends over time were calculated excluding the final year which was least complete (i.e. 2014) for suicide and homicide, for both general population and patients. For each model, the likelihood-ratio-test p-value and the predictor (and 95% confidence intervals) for year were examined. The number of suicides and homicides is small in certain patient sub-groups, particularly in Wales and Northern Ireland, and therefore significant variations are seen year on year.

49. We have followed guidance from the Office for National Statistics (ONS) on disclosure control to protect confidentiality within death statistics, and have suppressed cell counts under 3, including zero. We have applied this rule to all data in this report.

Rates of suicide

50. General population and patient rates for suicide were calculated using mid-year population estimates revised in light of the 2011 census (age 10 and over) as denominators obtained from ONS and National Records of Scotland (NRS). These were also used to calculate rates for suicide by Sustainability and Transformation Plan (STP) footprint (England), Health and Social Care Trust (Northern Ireland) and Health Boards (Scotland and Wales). Discrepancies may arise between Inquiry national numbers and rates and those presented by the ONS, the Department of Health [8], the Scottish Public Health Observatory website [9], and the Northern Ireland Statistics and Research Agency (NISRA) website [10] due to differences in measurement described in Avoidable Deaths [4], Suicide and Homicide in Northern Ireland [5], and Lessons for Mental Health Care in Scotland [6]. Our website FAQs summarises how discrepancies may be explained. **One important difference in comparison to ONS figures is that our suicide figures are presented by date of death, not date of registration.**

51. Estimated numbers in the final year (2014) are presented as dotted lines in the figures or in a different shade in the bar diagrams. Changes in annual figures will occur subject to further information received.

ENGLAND

ENGLAND

SUICIDE

52. Between 2004-2014, the Inquiry was notified of 49,269 deaths in the general population that were registered as suicide or "undetermined", an average of 4,479 per year. These are referred to as suicides throughout the report.

Suicide in the General Population

53. Our suicide rates differ from ONS rates because we base our figures on date of death rather than date when the death was registered. In addition, our figures include people aged 10-14 and are not age-standardised, i.e. adjusted to reflect differences in the age of the population.

54. Some inquests do not take place for several months which means that our figures for the most recent years underestimate the final figures. We therefore calculate estimates that take this delay into account for 2013 and 2014 (Figures 1 and 2).

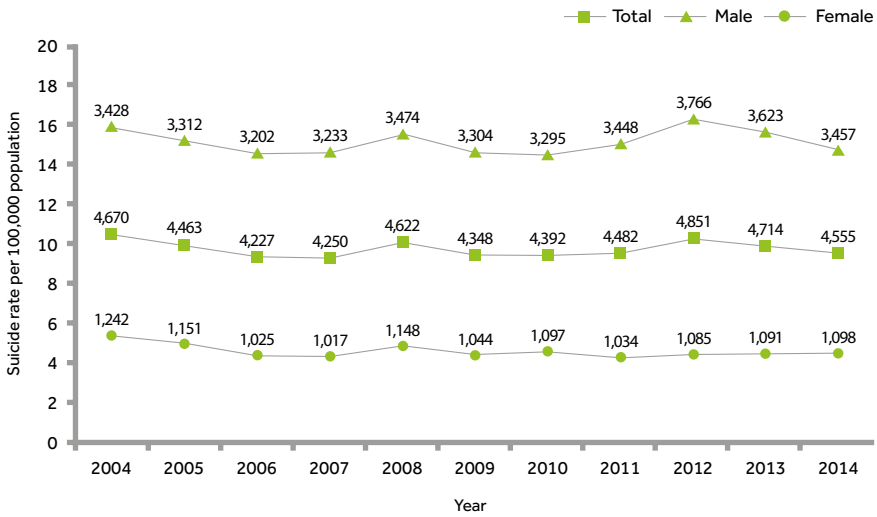
55. The pattern of suicide since 2004 is (1) a continued fall from previous years, reaching a historical low in 2006 and 2007, (2) a rise in 2008 and 2012, with intervening years being lower, influenced by under-recording of "narrative" verdicts, (3) falling rates in 2013 and 2014.

56. The pattern of male suicide rates during the report period varied by age-group (Figure 2). Since 2004, there has been a fall in male suicide rates in those aged 25-34; increases in those aged 45-54 and 55-64; and no overall changes in other age groups. In females, rates fell in those aged 25-34 and rose in 55-64 year olds.

57. These changes have been substantial and largely maintained year on year. The rise in suicide rates in men aged 45-54 from 2006-2013 has been 27% while in men aged 55-64 it has been 20%. The fall in men aged 25-34 from 2004 to 2014 was 30%.

SUICIDE RATES IN MEN AGED 45-54 HAVE RISEN BY 27% SINCE 2006. RATES HAVE RISEN BY 20% IN MEN AGED 55-64.

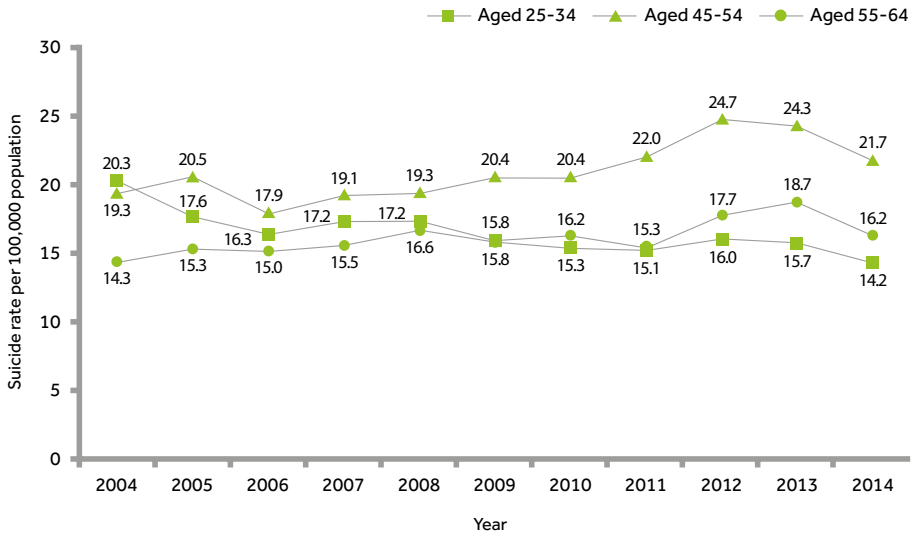
Figure 1: Rates of suicide in the general population in England, by gender. Number of suicides included on the figure



Note: rates in 2013 and 2014 include projections of final case numbers (see para 54)

RATES FELL BY 30% IN MEN AGED 25-34 SINCE 2004.

Figure 2: Male suicide rates in the general population in England in those aged 25-34, 45-54 and 55-64



Note: rates in 2013 and 2014 include projections of final case numbers (see para 54)

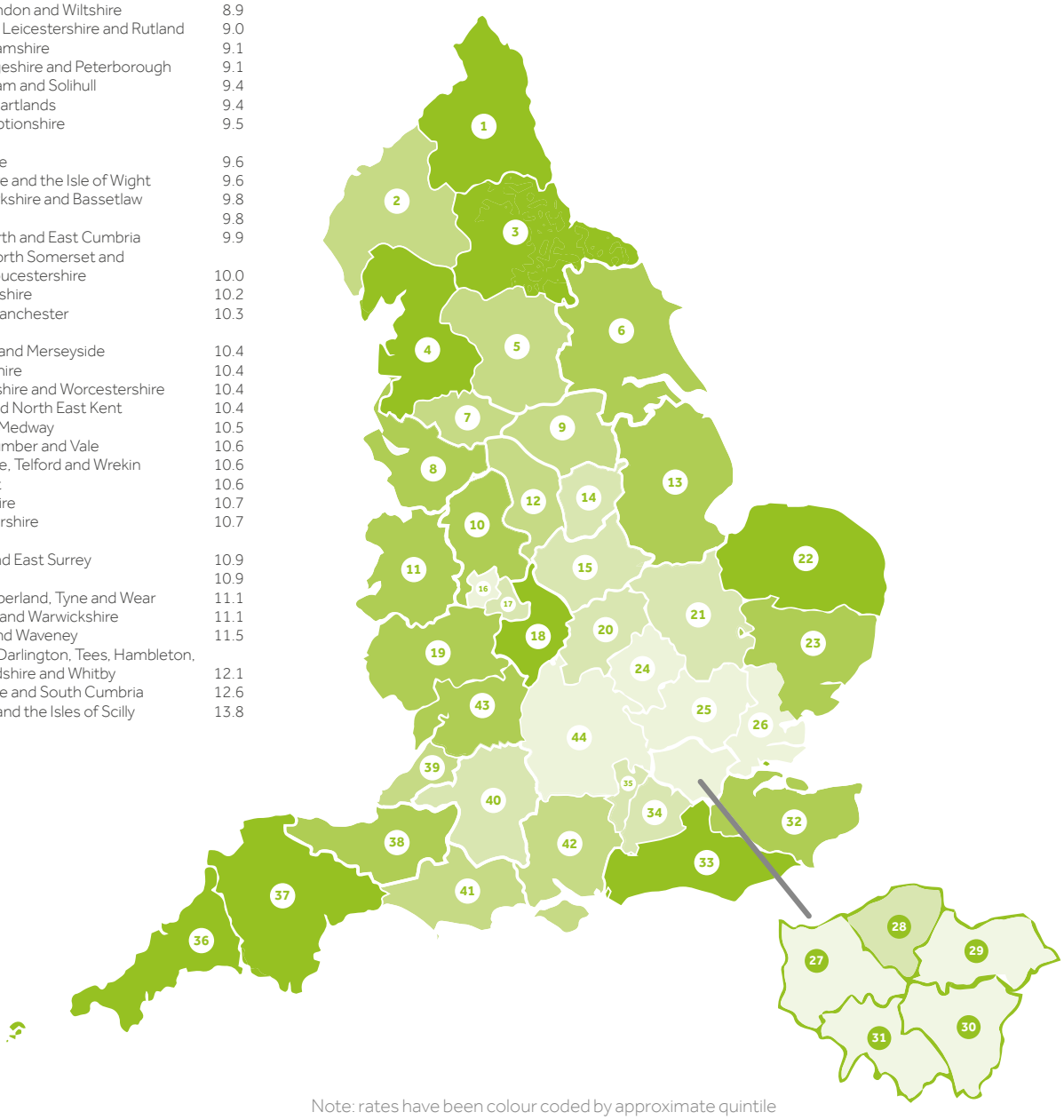
Variation in suicide rates by local health and care systems (Sustainability and Transformation Plan (STP) 'footprints')

58. Suicide rates varied by the 44 health and care systems recently announced for England (Sustainability and Transformation Plan (STP) 'footprints'). Average rates for 2012-2014 are shown in Figure 3. The highest rate of suicide was in Cornwall and the Isles of Scilly, at 13.8 per 100,000 population, twice the lowest rate, in South West London, at 6.9 per 100,000 population. In general the highest rates were in the north and south-west, with the lowest rates in London and the south-central areas.

59. ONS suicide rates mapped to English local authorities can be found on the Public Health England website at: **http://fingertips.phe.org.uk/search/suicide**

Area	Rate
31. South West London	6.9
24. Milton Keynes, Bedforshire and Luton	7.2
16. The Black Country	7.3
25. Hartfordshire and West Essex	7.3
27. North West London	7.5
29. North East London	7.6
30. South East London	7.6
26. Mid and South Essex	8.6
44. Buckinghamshire, Oxfordshire and Berkshire West	8.7
28. North Central London	8.8
34. Frimley Heath	8.9
40. Bath, Swindon and Wiltshire	8.9
15. Leicester, Leicestershire and Rutland	9.0
14. Nottinghamshire	9.1
21. Cambridgeshire and Peterborough	9.1
17. Birmingham and Solihull	9.4
35. Surrey Heartlands	9.4
20. Northamptionshire	9.5
12. Derbyshire	9.6
42. Hampshire and the Isle of Wight	9.6
9. South Yorkshire and Bassetlaw	9.8
41. Dorset	9.8
2. West, North and East Cumbria	9.9
39. Bristol, North Somerset and South Gloucestershire	10.0
5. West Yorkshire	10.2
7. Greater Manchester	10.3
8. Cheshire and Merseyside	10.4
10. Staffordshire	10.4
19. Herefordshire and Worcestershire	10.4
23. Suffolk and North East Kent	10.4
32. Kent and Medway	10.5
6. Coast, Humber and Vale	10.6
11. Shropshire, Telford and Wrekin	10.6
38. Somerset	10.6
13. Lincolnshire	10.7
43 Gloucestershire	10.7
33. Sussex and East Surrey	10.9
37. Devon	10.9
1. Northumberland, Tyne and Wear	11.1
18. Coventry and Warwickshire	11.1
22. Norfolk and Waveney	11.5
3. Durham, Darlington, Tees, Hambleton, Richmondshire and Whitby	12.1
4. Lancashire and South Cumbria	12.6
36. Cornwall and the Isles of Scilly	13.8

Figure 3: Rates of suicide per 100,000 population, by STP 'footprint' area of residence (average rate 2012-2014)



Note: rates have been colour coded by approximate quintile

Method of suicide

60. The most common methods of suicide were hanging and strangulation (referred to as hanging in the remainder of this report) (23,324, 47%), self-poisoning (overdose) (10,502, 21%), and jumping and multiple injuries (mainly jumping from a height or being struck by a train) (5,225, 11%). Less frequent methods were drowning (2,206, 4%), gas inhalation (including carbon monoxide poisoning; 1,572, 3%), cutting and stabbing (1,371, 3%), and firearms (983, 2%).

61. Deaths by hanging increased (Figure 4). Deaths by self-poisoning decreased, and those by jumping and multiple injuries did not change. Of the less common methods, deaths by drowning decreased, as did deaths from gas inhalation reflecting a fall in car exhaust asphyxiation (Figure 5). There was an increase in deaths by cutting/stabbing between 2007 and 2013, though the reported number fell substantially in 2014.

Figure 4: Suicide in the general population in England: main causes of death

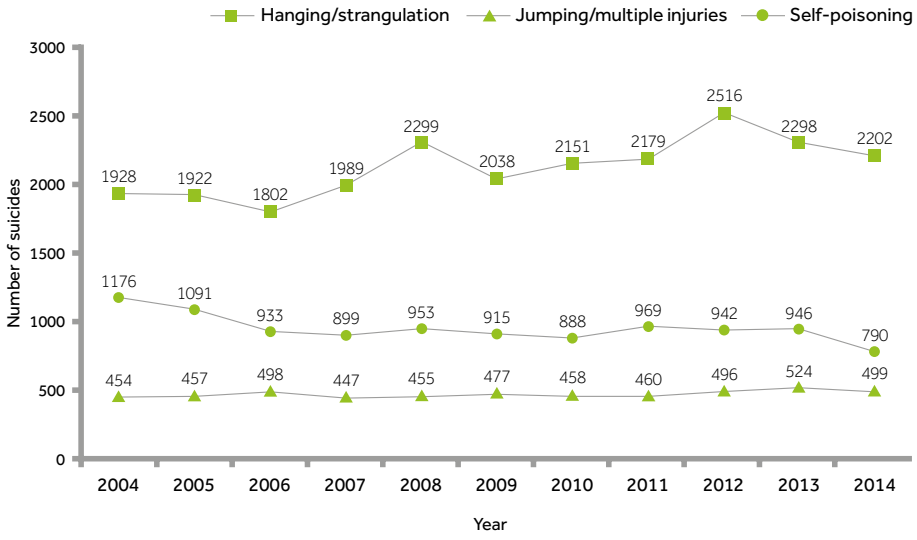
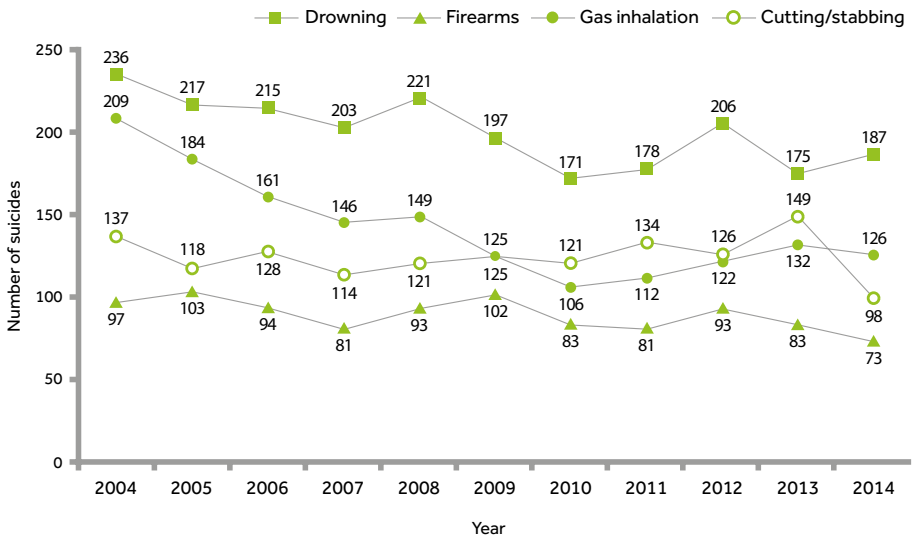


Figure 5: Suicide in the general population in England: other causes of death



PATIENT SUICIDE

Patient suicide: numbers and rates

62. During 2004-2014, 13,921 deaths (28% of general population suicides) were identified as patient suicides, i.e. the person had been in contact with mental health services in the 12 months prior to death. This represents an average of 1,266 patient suicides per year, though the pattern is for higher numbers in recent years (Figure 6). Patient characteristics are presented in Table 1.

63. The number of suicides in male patients has increased since 2006 (Figure 7). For females, there has been a 12% rise to 2013 since 2006 and we are estimating a further rise in 2014. The rise in male patient suicides since 2006 is 22%, whereas the general population rise in male suicides is less, at 12% from 2006 to 2013 (although 18% to the peak in 2012).

64. There was an increase in the number of male suicides in those aged under 25, 45-54, 55-64 and 65+ (Figure 8). The rise in male patients aged 45-54 and 65+ has been particularly striking since 2005-06. The number of female suicides did not change overall in any age-group.

65. However, rates of patient suicide - taking into account the rising number of patients under mental health care[11] - show a different pattern (Figure 9). Although rates pre- and post-2011 are not comparable because of changes to methodology,[12] rates fell in both periods, suggesting a fall overall. Patient suicide rates measured in this way show a fall overall, in males, and in males aged 35-44 since 2011 (Figure 10). The rise seen in the number of male patient suicides aged 45-54 and 65+ is a reflection of increased overall patient numbers.

Figure 6: Number of patient suicides in England

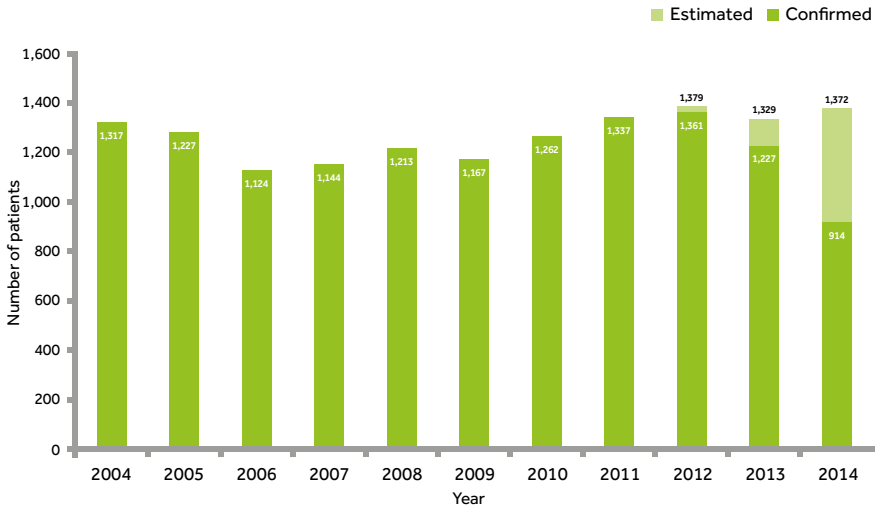
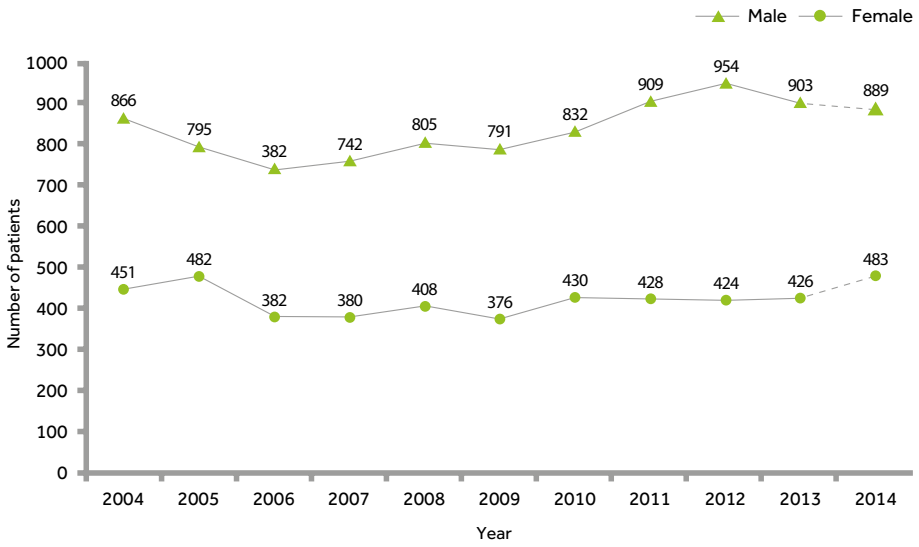


Figure 7: Number of patient suicides in England, by gender



Note: some figures do not tally with the total figures in Figure 6 due to rounding.

Figure 8: Patient suicide in England: number of male suicides in those aged <25, 45-54, 55-64, and 65+

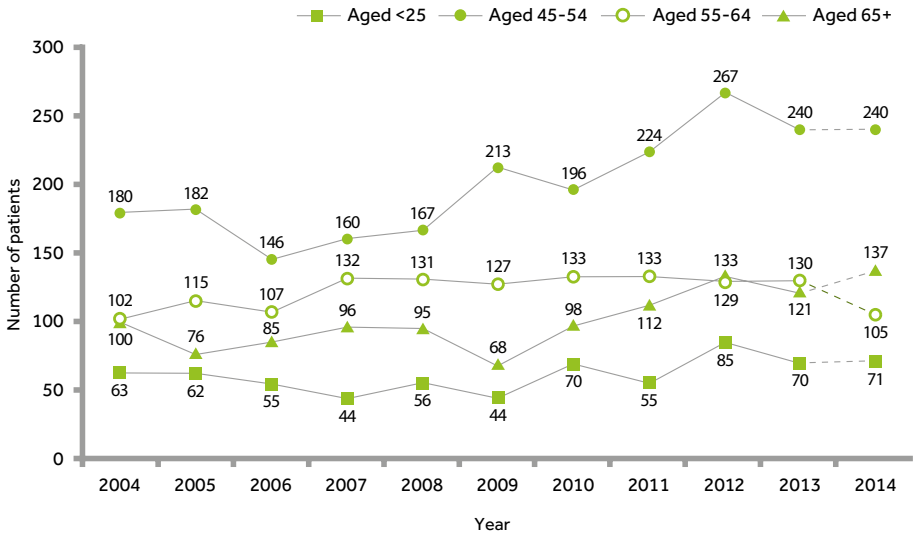
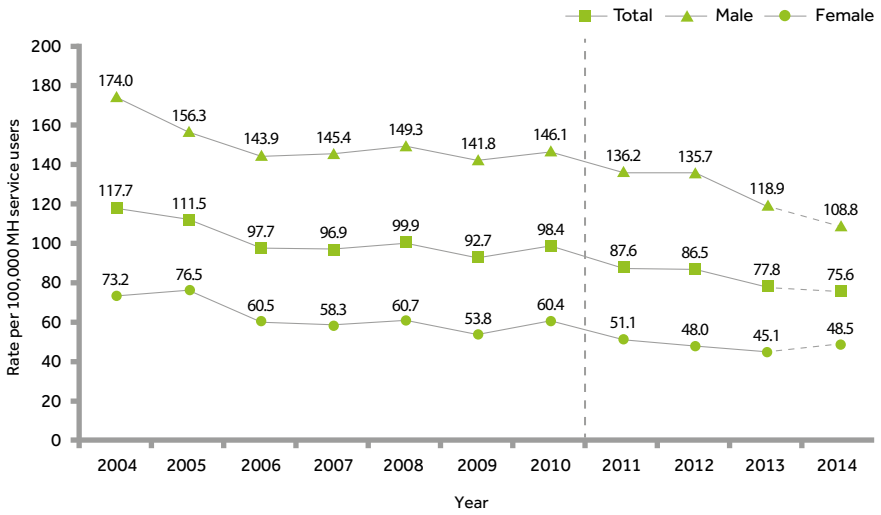
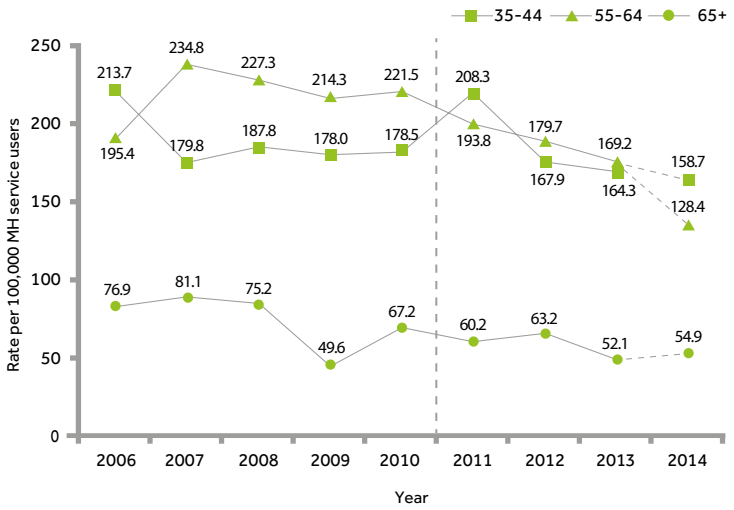


Figure 9: Rates of suicide per 100,000 mental health service users† in England



†The Mental Health Services Data Set (MHSDS)[11] was used to calculate rates for the available years (2004-2014). Changes in MHSDS methodology[12] means rates between 2004-2010 and 2011-2014 are not directly comparable. Rates in 2011-2014 are based on 1,517,613 service users in 2011, 1,578,409 in 2012, 1,703,247 in 2013, and 1,813,672 in 2014.

Figure 10: Rates of suicide per 100,000 mental health service users† in England in males aged 35-44, 55-64 and 65+



†The Mental Health Services Data Set (MHSDS)[11] was used to calculate rates for the available years (2006-2014). Changes in MHSDS methodology[12] means rates between 2006-2010 and 2011-2014 are not directly comparable.

Table 1: Key characteristics of patients who died by suicide in England (2004-2014)

	N=13,921 Number	%
Demographic features		
Age: median (range)	46 (10-100)	
Aged under 25	995	7
Male	9,250	66
Not currently married	9,617	71
Living alone	6,324	47
Unemployed	5,799	44
On long-term sick leave	1,920	14
Black & minority ethnic group	1,115	8
Homeless	335	3
Priority groups		
In-patients	1,207	9
Recent (<3 months) discharge	2,305	18
Missed last contact in previous month	3,136	25
Non-adherence with medication in previous month	1,671	13
Clinical features		
Any secondary diagnosis	7,024	51
Duration of illness (<12 months)	2,809	21
Over 5 previous admissions	1,529	11
First contact with mental health services:		
<12 months	3,900	32
>5 years	4,972	41
Last admission was a re-admission	1,004	14
Behavioural features		
History of self-harm	9,242	68
History of violence	2,906	22
History of alcohol misuse	6,151	45
History of drug misuse	4,435	33
Contact with services		
Last contact within 7 days of death	6,797	49
Symptoms of mental illness at last contact	8,547	64

Method of suicide by patients

66. The most common methods of suicide by patients were hanging (5,969, 43%), self-poisoning (3,464, 25%), and jumping/multiple injuries (2,141, 15%).

67. Hanging increased during 2004-2013, and we are estimating a further rise in 2014 (Figure 11). The number of self-poisoning deaths fell after 2004 but increased since 2006. The number of suicides by gas inhalation and drowning decreased over the report period.

68. Opiates were the most common type of drug in self-poisoning (760, 24%) followed by tricyclic antidepressants (366, 12%) and anti-psychotic drugs (341, 11%; Figure 12). The next most common substances were paracetamol/opiate compounds (272, 9%) and SSRI/SNRIs antidepressants (266, 9%). Paracetamol was used in 185 (6%) of deaths by self-poisoning.

69. The number of deaths by opiates increased over the report period, though has fallen since a peak in 2011 (Figure 12). In 150 (40% excluding unknowns) the opiates had been prescribed for the patient, in 31 (9%) they had been prescribed for someone else, and in 182 (51%) they had not been prescribed. We have collected data on the types of opiates used since 2012, the most common being heroin/morphine (68, 36%), codeine (38, 20%) and tramadol (33, 18%). Among those who died by heroin/morphine overdose, in 24 (60% excluding unknowns) this had not been prescribed. Among those who died by codeine or tramadol overdose, 16 (73% excluding unknowns) were prescribed these drugs.

70. The annual number of self-poisoning deaths by tricyclic antidepressants fell after 2004 and we are estimating a further fall in 2014 (Figure 12). There was a fall in self-poisonings using paracetamol/opiate compounds over the report period but an increase in paracetamol deaths since 2009, though we estimate a decrease in 2014 (Figure 13).

Figure 11: Patient suicide in England: main causes of death

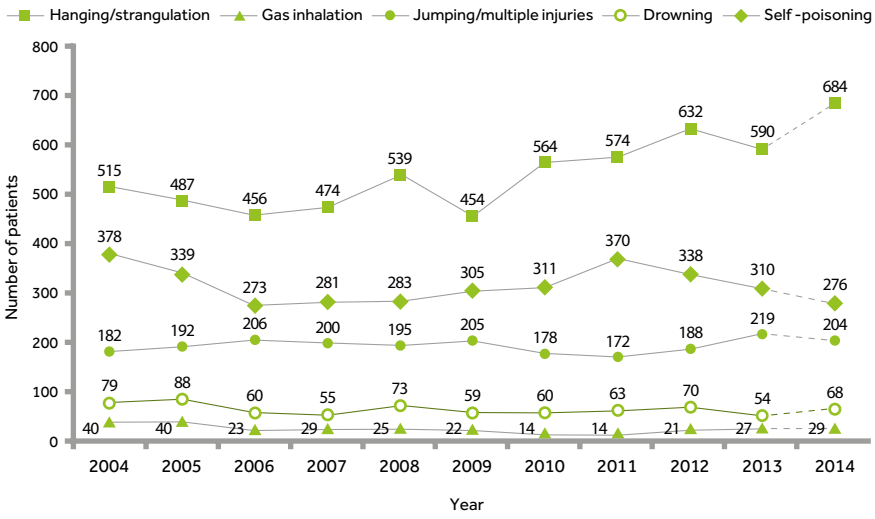


Figure 12: Patient suicide in England: main substances used in deaths by self-poisoning

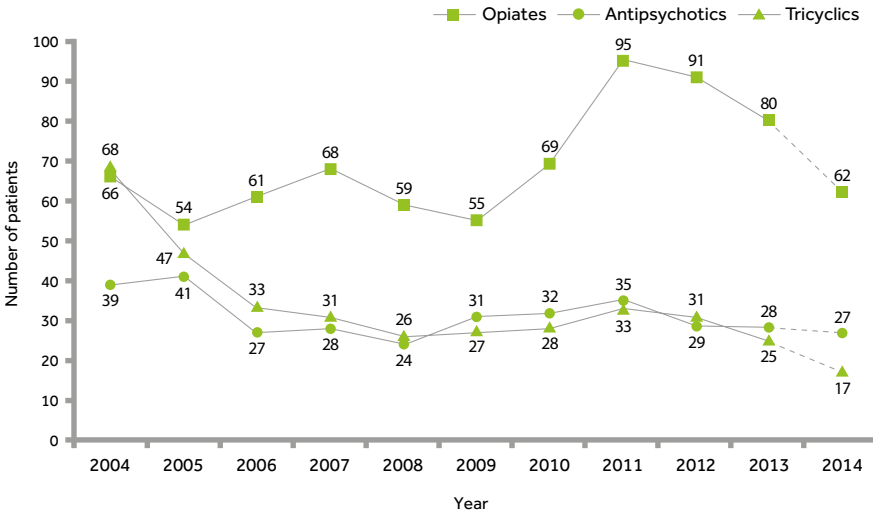
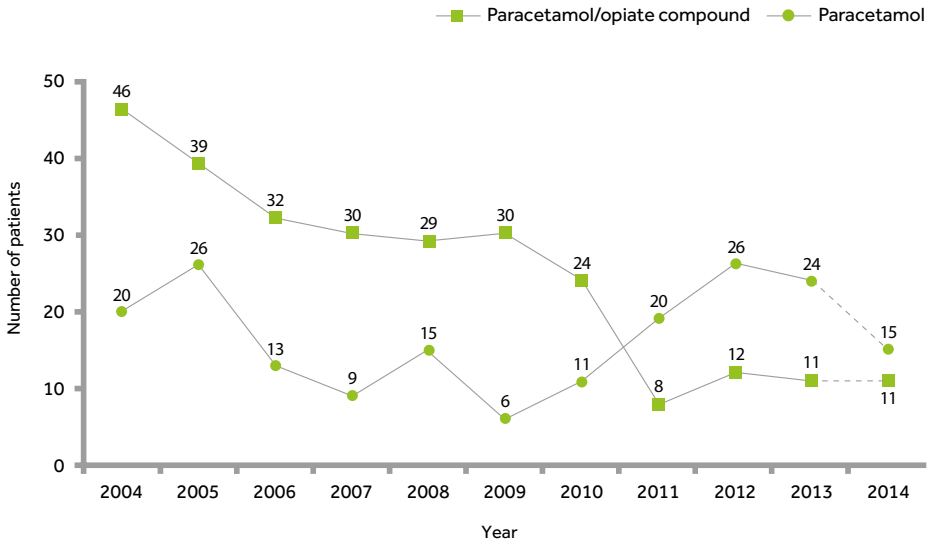


Figure 13: Patient suicide in England: number of deaths by self-poisoning using paracetamol/opiate compound and paracetamol



Primary diagnosis

71. The most common primary diagnoses were affective disorders (bipolar and depressive illness) (6,196, 45%); schizophrenia (includes other delusional disorders) (2,356, 17%) and personality disorder (1,259, 8%) (Figure 14). Numbers in patients with schizophrenia have risen since 2006 by 87 (17%) (Figure 15).

Figure 14: Patient suicide in England: primary psychiatric diagnoses

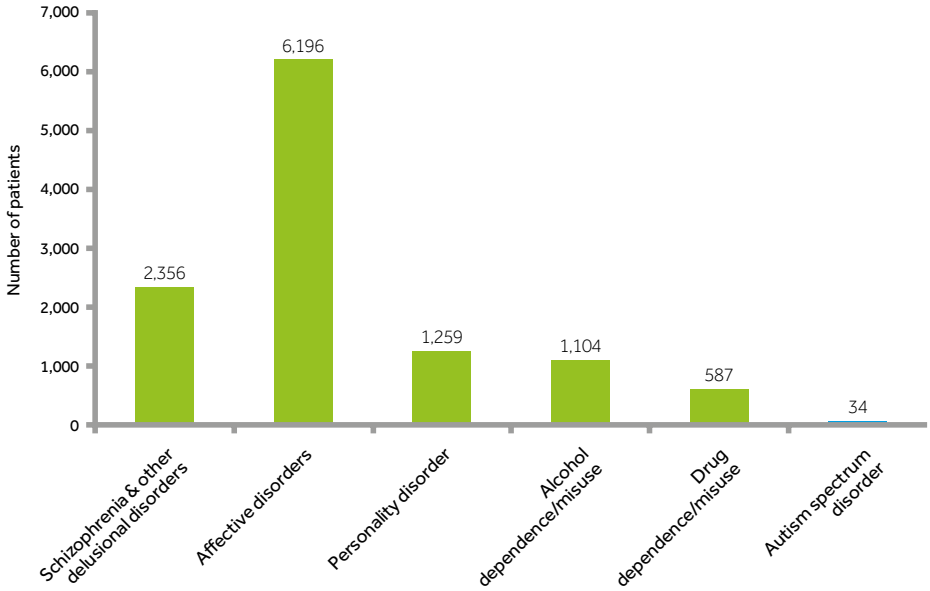
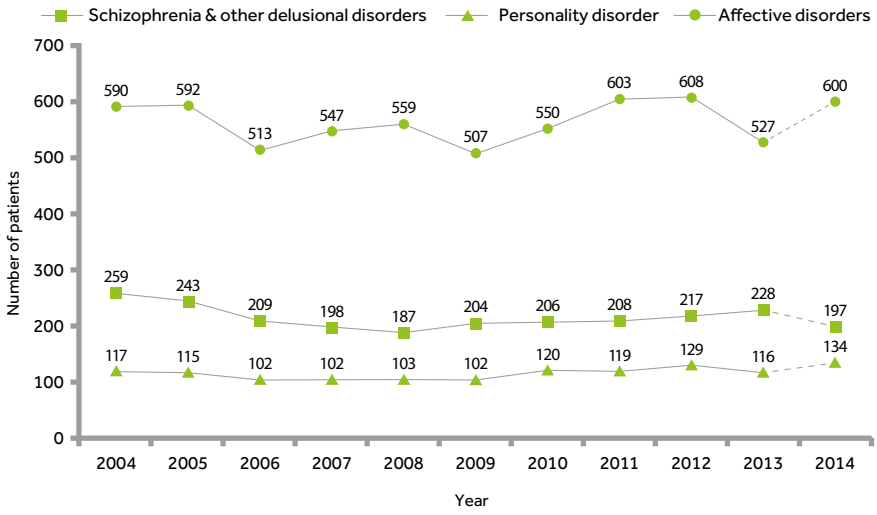


Figure 15: Patient suicide in England: main primary psychiatric diagnoses

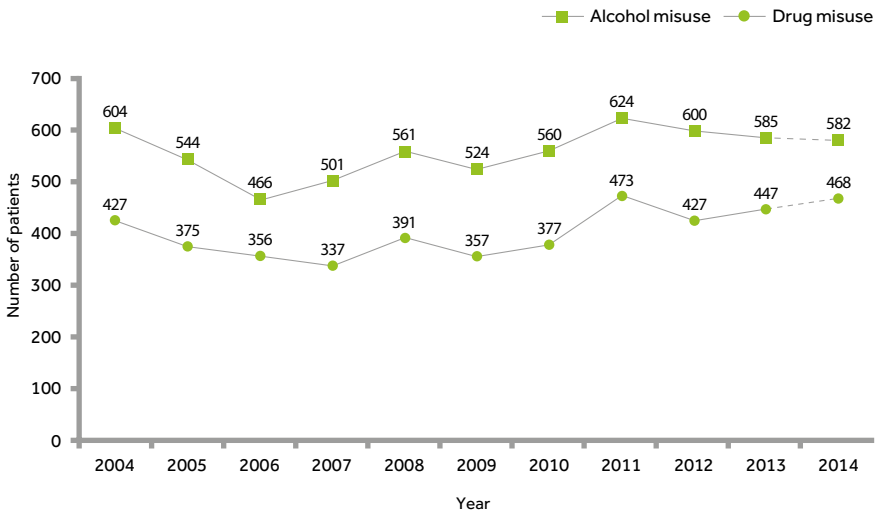


Patients with alcohol and drug misuse

72. There were 6,151 suicides in patients with a history of alcohol misuse, 45% of the total sample, an average of 559 deaths per year (Figure 16). 4,435 had a history of drug misuse, 33% of the total sample, an average of 403 deaths per year. 7,391 had a history of either alcohol or drug misuse or both, 54% of patient suicides, an average of 672 deaths per year.

73. The number of suicides in patients with a history of alcohol or drug misuse has increased (Figure 16). Between 2012-2014, 240 (7%) patients were under drug services, 247 (7%) were under alcohol services, and 392 (11%) were under either drug or alcohol services.

Figure 16: Patient suicide in England: number with a history of alcohol or drug misuse



Websites promoting suicide

74. In 2011-2014 there were 128 patients who died by suicide after visiting a "pro-suicide" internet site, i.e. providing information on methods or encouraging suicide. This represents an average of 32 per year, 2% of all patient suicides during this period. This proportion increased to 6% (23 patients) in patients aged under 25. Overall, the figures increased but this was not significant as overall numbers were small. As these figures are based on clinical reports, they may underestimate how often this occurs.

MENTAL HEALTH CARE

In-patient suicide

75. There were 1,207 in-patient deaths by suicide in 2004-2014, 9% of patient suicides, an average of 110 per year.

76. From 2004 to 2013, there was a 51% fall (82 cases) in the number of in-patient suicides (Figure 17). This continued a fall from previous years and we are estimating a continuation of this trend in 2014. However in-patient deaths are more often subject to late notification and our estimated figure may rise.

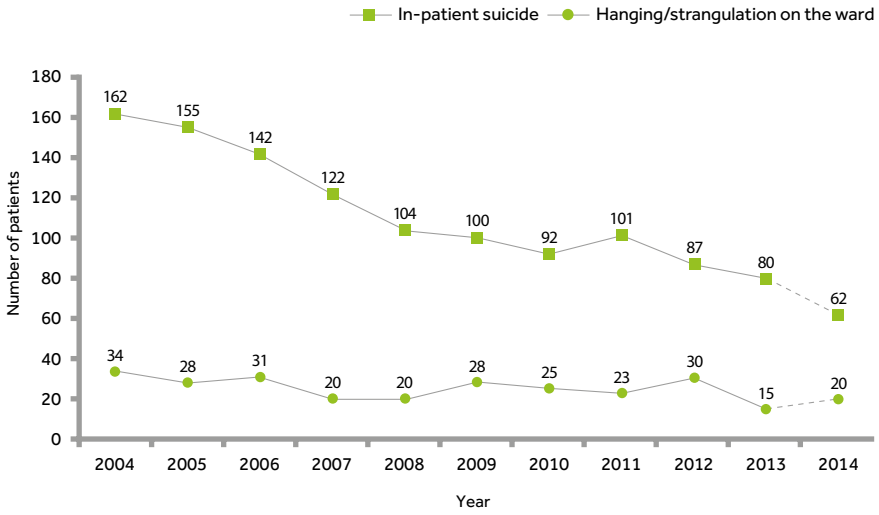
77. Deaths by hanging on the ward are usually from low-lying ligature points (i.e. strangulation). The number of deaths by this method fell by 56% (19 cases) from 2004 to 2013 (Figure 17). However, 20-30 deaths per year still occurred on the ward by hanging. The majority (68%) died by hanging in a single bedroom or a toilet/bathroom (18%). The most common ligature points were doors (43%) or windows (18%) and the most common ligatures were a belt (35%) or sheets/towels (27%).

78. There were 326 suicides in detained in-patients, 27% of in-patient suicides, an average of 30 per year. The number of these deaths decreased over the report period.

79. 254 in-patients died after absconding from the ward, 21% of in-patient suicides, an average of 23 deaths per year. There was an overall fall in the number of suicides after absconding.

80. In a study of suicide by patients under observation, we recommended that observations should be seen as a skilled intervention carried out by experienced staff.[13]

Figure 17: Patient suicide in England: number of mental health in-patients; number who died by hanging and strangulation on the ward



Crisis Resolution/ Home Treatment

81. There were 1,940 suicides in patients under crisis resolution/home treatment (CRHT) teams, 15% of the total sample, an average of 176 deaths per year over the whole study period, though recent figures are around 200 per year.

82. Overall, the annual number of suicides under CRHT increased over the report period, from its introduction in 2004-06 (Figure 18), initially reflecting its increasing use. Our estimates for 2014 mean there are now around three times as many patient suicides under CRHT.

83. In 622 (34%) the patient had been discharged from in-patient care in the preceding 3 months; 240 (39%) died within 2 weeks of discharge, 153 (26%) within a week.

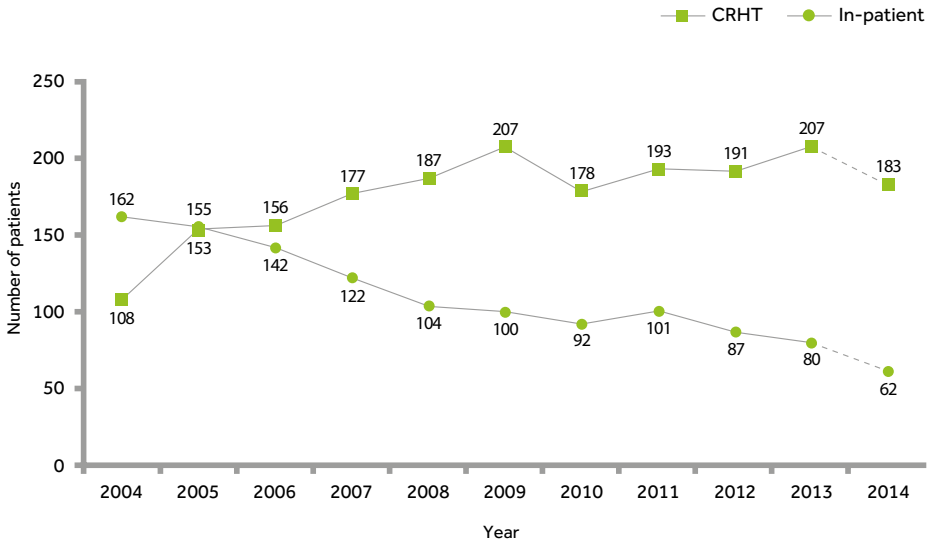
84. We have collected data on length of time under CRHT since 2012. 173 (37%) patients who died had been under CRHT services for less than a week, 58 (34%) of whom died within 3 months of discharge from in-patient care.

85. In 833 (43%) the patient lived alone. In 253 (54% excluding unknowns) the care plan included additional social support from outside the home, e.g. from a relative, friend or neighbour. However, those living alone were less likely to receive additional support (72, 39%).

3x

THERE ARE AROUND 3 TIMES AS MANY SUICIDES UNDER CRHT AS IN IN-PATIENT CARE.

Figure 18: Patient suicide in England: number under crisis resolution/home treatment services and mental health in-patients



Patients recently discharged from hospital

86. There were 2,305 suicides within 3 months of discharge from in-patient care, 17% of all patient suicides and 18% of suicides in community patients, an average of 210 deaths per year.

87. The number of post-discharge suicides fell between 2004-2013, though we are estimating an increase in 2014 following this fall (Figure 19).

88. Post-discharge suicides were most frequent in the first week after leaving hospital when 340 deaths occurred, an average of 31 per year, 15% of all suicides within 3 months of hospital discharge (Figure 20). The proportion who died in the first week after discharge did not change over the report period. Of all patients who died in the first week after discharge, the highest number occurred on day 3 (20%).

89. 274 (13%) died before the first follow-up appointment. Between 2004 and 2013, there was a decrease in the number and proportion of patients who died before first follow-up, with the proportion falling to 6% in 2013 and 2014.

90. 195 (9%) died after being discharged from a non-local in-patient unit. This proportion increased to 11% (67 cases) of those who died within 2 weeks of discharge. The number of suicides after discharge from a non-local unit increased from 85 (8%) in 2004-2008 to 96 (10%) in 2009-2013.

Figure 19: Patient suicide in England: number who died within 3 months of in-patient discharge

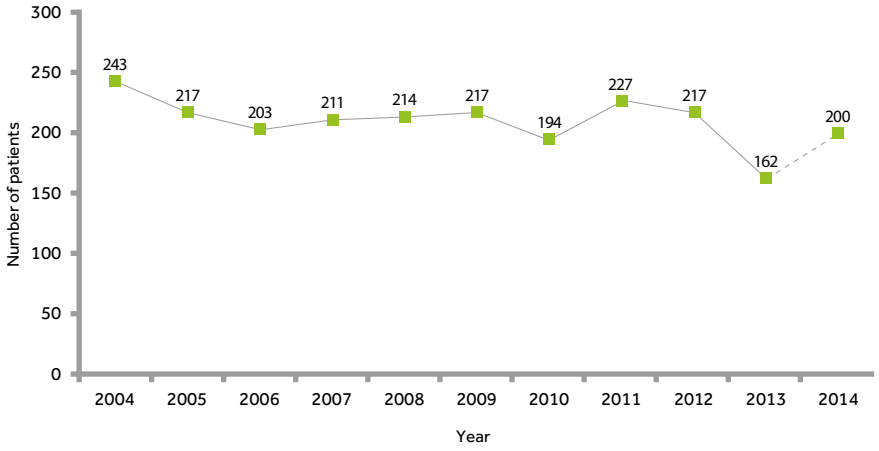
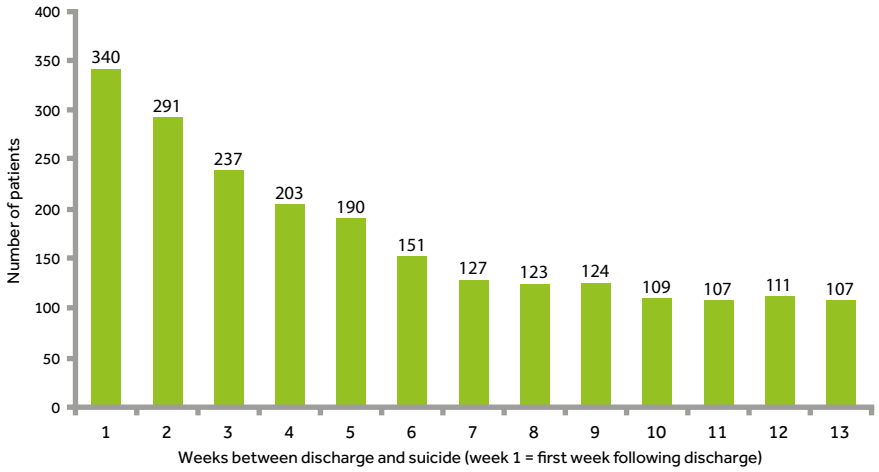


Figure 20: Patient suicide in England: number per week following discharge (2004-2014)

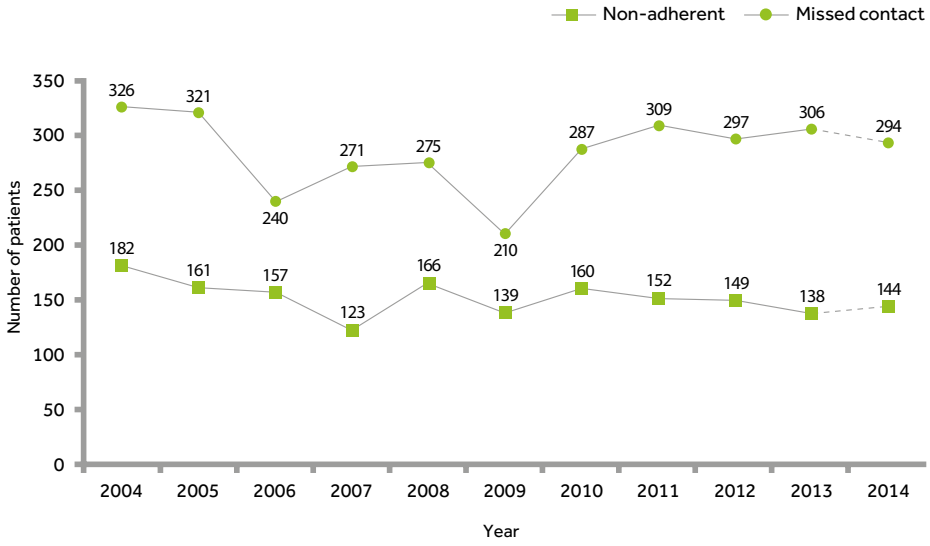


Non-adherence and missed contact

91. 1,671 (13%) patients were non-adherent with drug treatment in the month before death, an average of 152 deaths per year, and 3,136 (25%) patients missed their final service contact, an average of 285 deaths per year.

92. During 2004-2013 the number of patient suicides following missed contact fell to a low point in 2009 and subsequently rose. The fall in deaths following non-adherence was not significant. Both sets of figures should be seen against a rise in overall patient numbers. (Figure 21).

Figure 21: Patient suicide in England: number non-adherent with drug treatment or missed contact



Immediate risk of suicide at last contact

93. Immediate risk of suicide at last contact was judged to be low or not present in 10,768 (85%), and long-term risk low or not present in 7,345 (59%).

Community Treatment Orders

94. There were 64 suicides in patients subject to a community treatment order (CTO) in 2009-2014, less than 1% of all patient suicides in this time period, an average of 11 per year. 46 patients who died had previously been on a CTO but were not on a CTO at the time of suicide. The rate of suicide in patients under CTO was 2.5 per 1,000 CTOs in 2009-2014. The number or rate did not change between 2009-2013, though we are estimating a higher rate in 2014 (4.4 per 1,000 CTOs).

95. 25 of the 64 deaths under CTO (39%) occurred within 3 months of hospital discharge. 10 patients who died while subject to a CTO were non-adherent with drug treatment in the month before death and 18 missed the last appointment with services; 3 had both refused treatment and missed the last appointment. Therefore 39% of those who died were not receiving care as intended despite CTO powers.

Improving Access to Psychological Therapies (IAPT)

96. There were 150 suicides in patients under IAPT services in the years 2011-2014, 3% of all patient suicides in this time period, an average of 38 per year. The number of patients under IAPT increased over this four-year period.

HOMICIDE

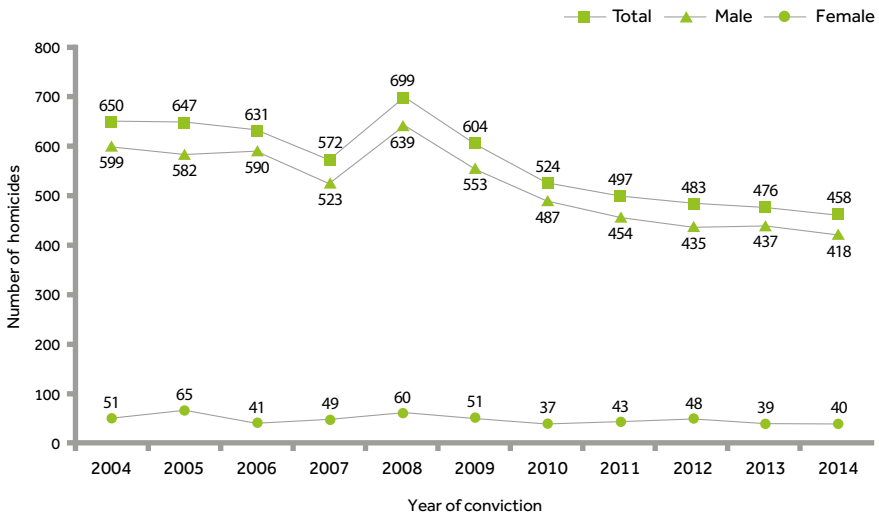
97. In 2004-2014, the Inquiry was notified of 6,241 homicide convictions, an average of 567 per year. There were 6,571 victims, an average of 597 per year.

Homicide in the General Population

98. The annual number of convictions in the general population is shown in Figure 22. More recent statistics have been published for England and Wales by the Office for National Statistics (ONS) based on the number of offences recorded annually.[14] There was a decrease in the number of people convicted of homicide over the report period and since a peak in 2008.

99. The most common method was the use of a sharp instrument (2,472, 42% of cases) and hitting and kicking (1,117, 19%).

Figure 22: Number of homicide convictions in the general population in England, by gender of offender

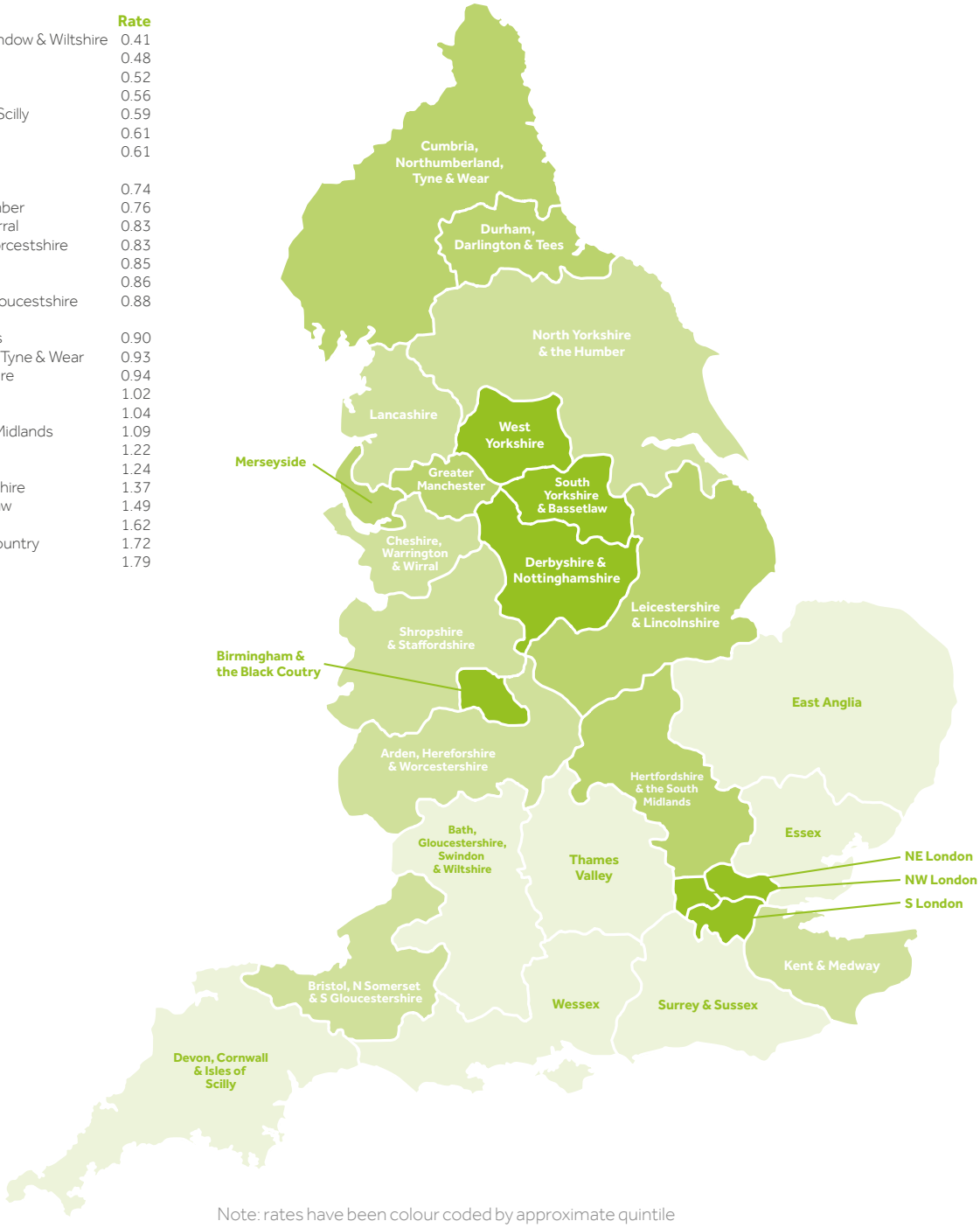


Variation in homicide convictions by area of residence (NHS England Area Teams)

100. Homicide conviction rates varied by area of residence (by NHS England Area Team) (average rate 2012-2014). The highest rate was in North East London at 1.79 per 100,000 population, and the lowest in Bath, Gloucestershire, Swindon & Wiltshire at 0.41 per 100,000 (Figure 23).

Figure 23: Rates of homicide convictions per 100,000 population by NHS area of residence (average rate 2012-2014)

Area	Rate
Bath, Gloucestershire, Swindow & Wiltshire	0.41
Essex	0.48
Surrey & Sussex	0.52
Thames Valley	0.56
Devon, Cornwall & Isles of Scilly	0.59
Wessex	0.61
East Anglia	0.61
Shropshire & Staffordshire	0.74
North Yorkshire & the Humber	0.76
Cheshire, Warrington & Wirral	0.83
Arden. Herefordshire & Worcestshire	0.83
Lancashire	0.85
Kent & Medway	0.86
Bristol, N Somerset, & S Gloucestshire	0.88
Durham, Darlington & Tees	0.90
Cumbria, Norhumberland, Tyne & Wear	0.93
Leicestershire & Lincolnshire	0.94
Greater Manchester	1.02
Merseyside	1.04
Hertordshire & the South Midlands	1.09
West Yorkshire	1.22
North West London	1.24
Derbyshire & Nottinghamshire	1.37
South Yorkshire & Bassetlaw	1.49
South London	1.62
Birmingham & the Black Country	1.72
North East London	1.79



Note: rates have been colour coded by approximate quintile

PATIENT HOMICIDE

101. The following analysis is based on 648 confirmed patients cases plus an additional 14 cases for 2014, which we have estimated based on the proportion of expected returns to give a total figure of 662 (Figure 24). This represents an average of 60 homicides per year. There were 694 victims, an average of 63 per year. Patient characteristics are presented in Table 2.

102. There was a fall in the number of patient homicides over the whole report period when examined by year of conviction, and by year of offence (Figure 24 and Figure 25). The primary diagnoses of patients convicted of homicide are presented in Figure 26.

Figure 24: Number of patient homicides in England

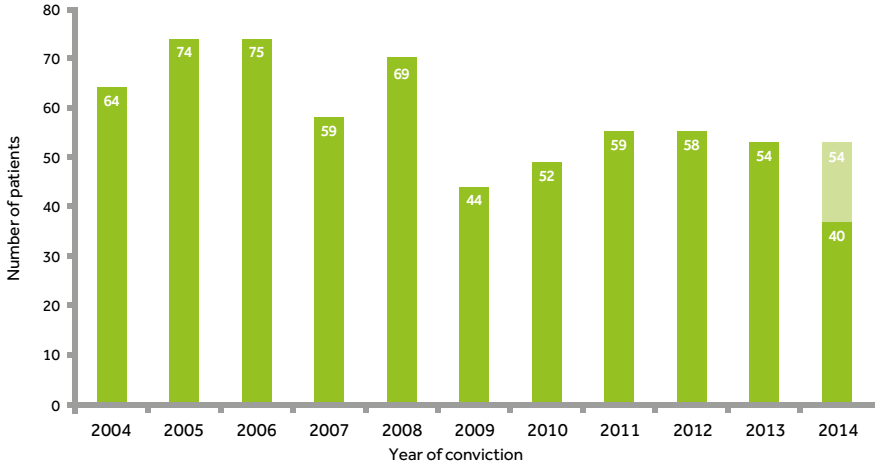
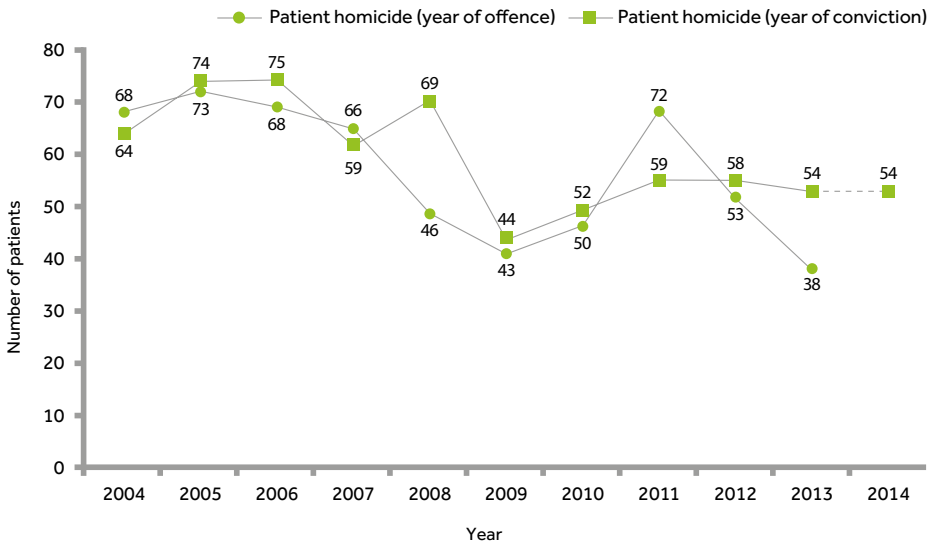


Table 2: Characteristics of patient homicide offenders in England

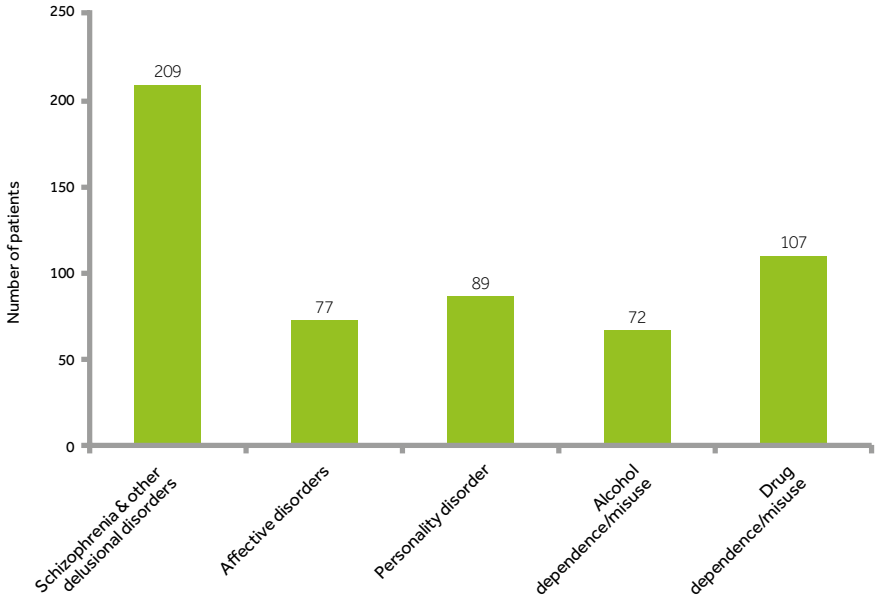
	Number N=662	%
Demographic features:		
Age of offender: median (range)	32	(13-83)
Male offender	568	86%
Black & minority ethnic group	124	19%
Not currently married	306 /388	79%
Unemployed/long-term sick	315 /380	83%
Living alone	105 /348	30%
Homeless	24 /356	7%
Behavioural features:		
History of violence	334	52%
Any previous convictions	485	78%
History of self-harm	319	52%
Abnormal mental state at the time of offence:	235	35%
Offence variables:		
Male victim	453	68%
Age of victim: median (range)	43	(0-90)
Victim was a stranger	97	17%
Sharp instrument used	352	55%
Final outcome:		
Murder	329	50%
Manslaughter (diminished responsibility)	108	16%
Manslaughter (other including provocation, self-defence)	207	31%
Infanticide	4	1%
Unfit to plead/not guilty by reason of insanity	14	2%
Sentencing outcome:		
Prison	487	74%
Hospital order (with or without restriction)	155	24%
Other non-custodial sentence	16	2%

Figure 25: Number of patient homicides in England, by year of offence and year of conviction



Note: homicide numbers by year of offence for 2014 are not provided due to incomplete data

Figure 26: Patient homicide in England: primary psychiatric diagnosis



Relationship of victim to offender

103. The relationship of victim to perpetrator was acquaintance (268, 46%); family member (110, 19%); spouse/partner (including ex-spouse/partner) (112, 19%); and stranger (97, 17%).

104. The number of stranger homicides fell over the report period and since a peak in 2006, having risen in the previous years. There were 83 homicides in which a male patient killed a female spouse.

Mental health care settings

105. 16 (3%) were in-patients at the time of the offence. 3 incidents occurred in 2013 after 3 years of no in-patient homicides. There were 44 homicides within 3 months of discharge from in-patient care, 7% of all patient homicides. Within this post-discharge period, most homicides occurred with the first week of discharge (15, 34%) and in 4 cases, the offence occurred before follow up took place.

106. 31 (6%) patients in 2005-2014 were under crisis resolution/home treatment (CRHT) teams at the time of the homicide. This is an average of 3 per year, with the highest number recorded in 2006 (6 cases).

Contact with mental health services

107. 317 (48%) patients committed homicide 1-4 weeks after their last contact with services, 141 (21%) between 5-13 weeks and 204 (31%) more than 13 weeks. Of those that occurred within a month of their final service contact, 131 (42%) had schizophrenia, 16 (5%) were in-patients, 31 (11%) had recently been discharged from in-patient care, and 20 (7%) were under the care of CRHT teams.

Forensic and clinical history

108. 334 (52%) patients had been convicted of a previous violent offence, 286 (48%) had previously been in prison. 36 (6%) had a history of admission to a high, medium or regional secure unit. 150 (24%) patients had previously been involuntarily detained under mental health legislation. The number of patient homicide previously detained involuntarily decreased over the report period from a peak of 20 in 2005 to 8 in 2013.

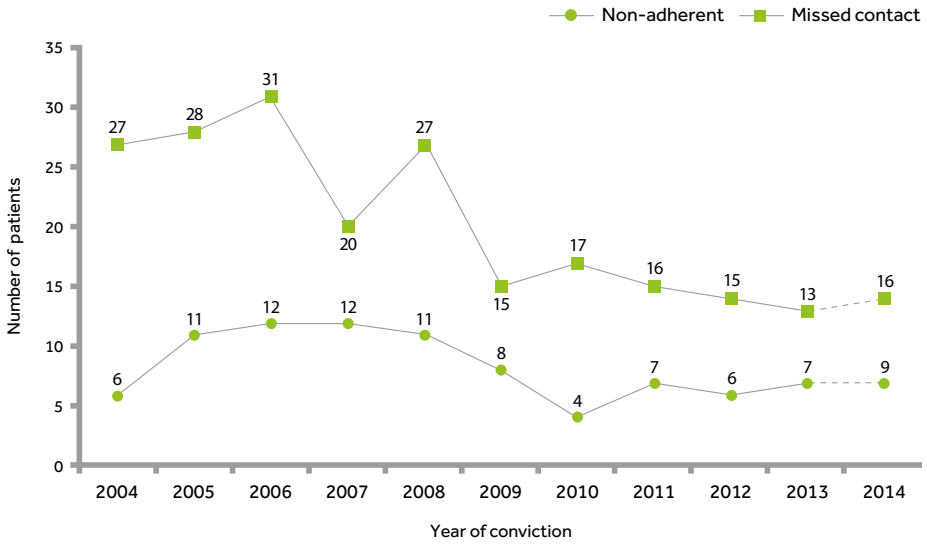
Non-adherence and missed contact

109. 93 (17%) patients were non-adherent with drug treatment in the month before the homicide, an average of 8 per year (Figure 27).

110. 225 (38%) patients missed their final service contact before the homicide occurred, an average of 20 per year. The number has fallen since 2004.

111. In total, 276 (49%) were either non-adherent or missed final contact with services and were therefore not in receipt of planned treatment just prior to the homicide and this number decreased over the report period.

Figure 27: Patient homicide in England: number non-adherent with drug treatment or missed contact



Homicide and schizophrenia

112. There were 369 homicides by people with a history of schizophrenia (includes other delusional disorders) over 2004-2014, 6% of the total sample, an average of 34 per year. The numbers fell steadily over the report period, however there was a peak of 40 cases in 2013, the highest number since 2004 (Figure 28). This increase is likely to reflect the court process with more offenders tried in 2013, as no similar rise was show when examined by year of offence (Figure 29). 303 (82%) had symptoms of psychosis (delusions and/or hallucinations) at the time of the offence.

113. 209 (57%) were patients, an average of 19 per year. There was a decrease after 2006 in homicides by patients with schizophrenia, followed by an apparent rise (Figure 28, 29).

114. 57 (30%) patients with schizophrenia were non-adherent with drug treatment in the month before the homicide, an average of 5 per year. 69 (37%) patients with schizophrenia missed their final service contact before the homicide, an average of 6 per year. In total 106 (57%) were either non-adherent or missed their final contact with services and there was a fall in this group over the report period.

Figure 28: Offenders with a primary diagnosis of schizophrenia and other delusional disorders in England

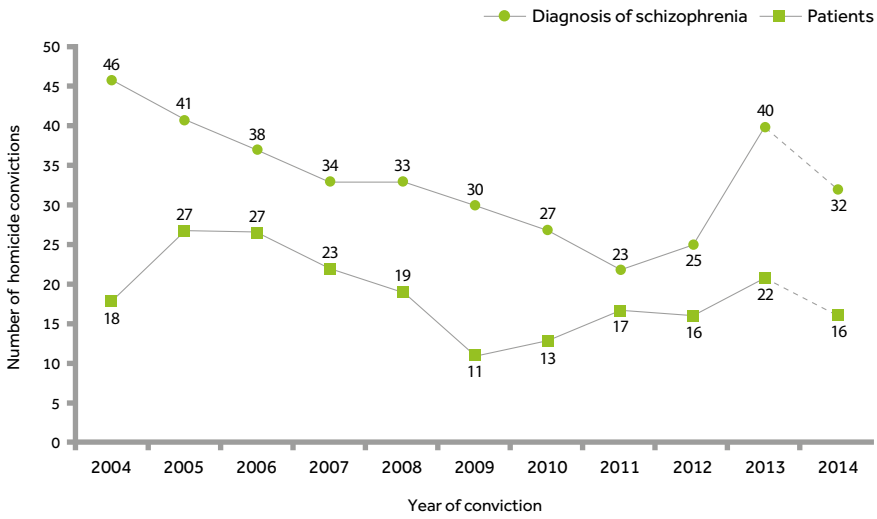
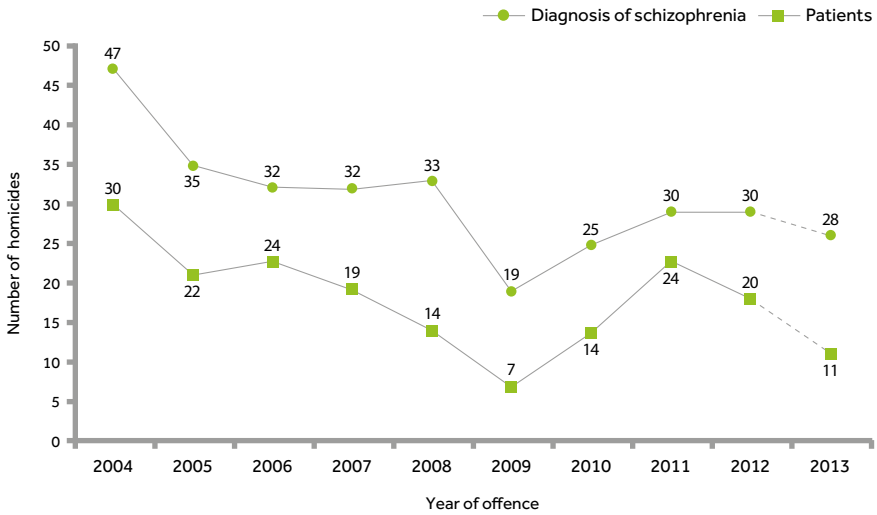


Figure 29: Offenders with a primary diagnosis of schizophrenia and other delusional disorders in England, by year of offence



Homicide and personality disorder

115. There were 251 homicides by people with personality disorder, 4% of the sample, an average of 23 per year. Of these, 89 (35%) were patients. There was a fall in the number of offenders with personality disorder and this was also shown to be the case for homicides by patients with personality disorder.

116. We are currently undertaking a new study to further our understanding of patients with a diagnosis of personality disorder who commit homicide or die by suicide. Our findings will be published in 2017.

Patients with alcohol and drug misuse

117. 464 (74%) patients had a history of alcohol misuse, an average of 42 per year (Figure 30). 485 (78%) patients had a history of drug misuse, an average of 44 per year (Figure 30). 556 (89%, excluding unknowns) had a history of either alcohol or drug misuse or both, an average of 51 homicides per year. There was a fall in the number of patients with all alcohol and/or drug misuse over the report period.

118. 158 (25%) patients had severe mental illness (schizophrenia or affective disorders) and co-morbid alcohol or drug dependence/misuse, an average of 14 per year. The number of patient homicides with "dual diagnosis" fell after a peak in 2005 but appears to have risen since 2010 (Figure 31).

Figure 30: Patient homicide in England: number with a history of alcohol or drug misuse

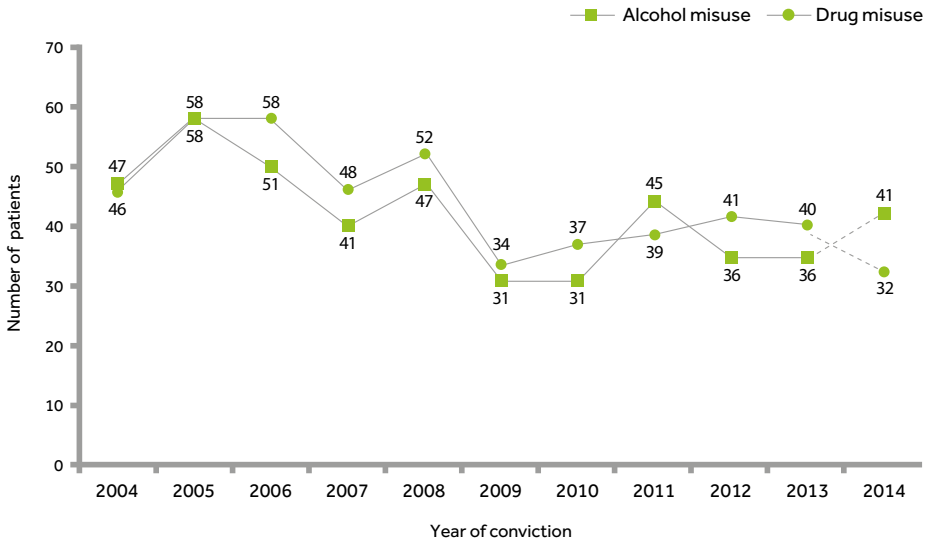
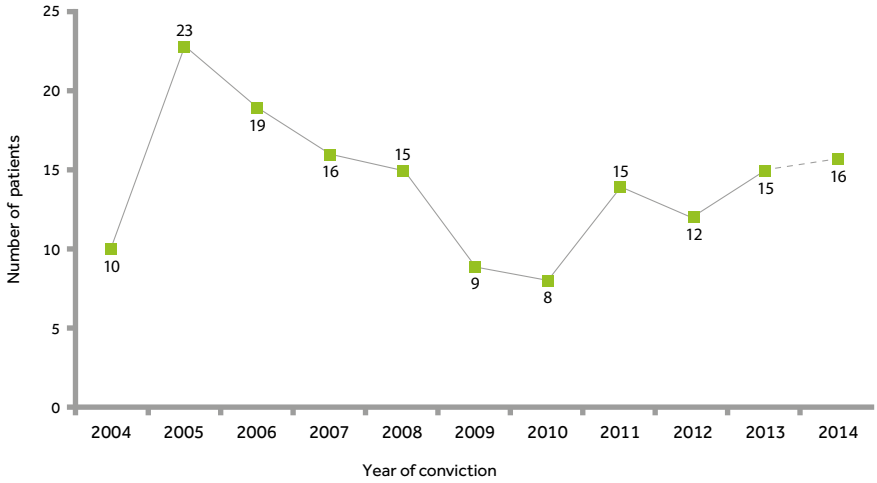


Figure 31: Patient homicide in England: number with dual diagnosis (severe mental illness and alcohol or drug dependence/misuse)



HOMICIDE FOLLOWED BY SUICIDE

119. Homicide followed by suicide is defined here as when the offender dies by suicide within 3 days of committing homicide. As there is no conviction for homicide, they are not included in the previous analysis.

120. We were notified of 203 offences between 2004 and 2014, an average of 18 per year. There were 302 victims in total. 36 (18%) incidents involved multiple victims. The median age of offenders was 45 (range 16-93). Most offenders were male (178, 88%).

121. The relationship of victim to offender (as a principal victim if there was more than one victim) was: spouse/partner (current/ex) (132, 65%); son/daughter including stepchild (36, 18%); other family member (14, 7%); acquaintance (13, 6%) and stranger (7, 3%).

122. 14 (7%) homicide-suicides were by patients under the care of mental health services prior to the offence, i.e. 1-2 per year.

NORTHERN IRELAND

NORTHERN IRELAND

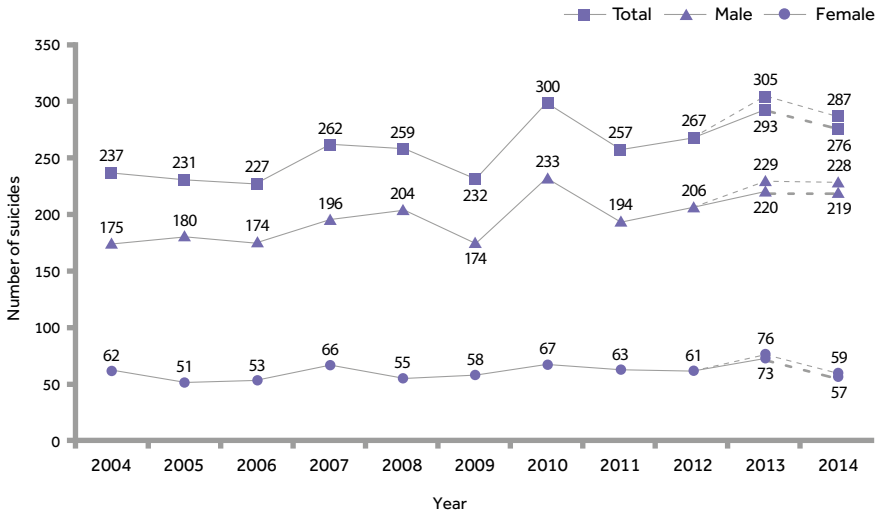
SUICIDE

123. In 2004-2014, the Inquiry was notified of 2,841 deaths in the general population that were registered as suicide or "undetermined", an average of 258 per year. These are referred to as suicides throughout the report.

Suicide in the General Population

124. There was an increase in the number and rate of suicides in 2004-2013. We are estimating a slight fall in 2014 (Figures 32 and 33). Some deaths are not registered for several months or longer which means that our figures for the most recent years underestimate the final figures. We therefore calculate figures that take this delay into account for 2013 and 2014. The increase in numbers and rates in 2004-2013 was observed in males only.

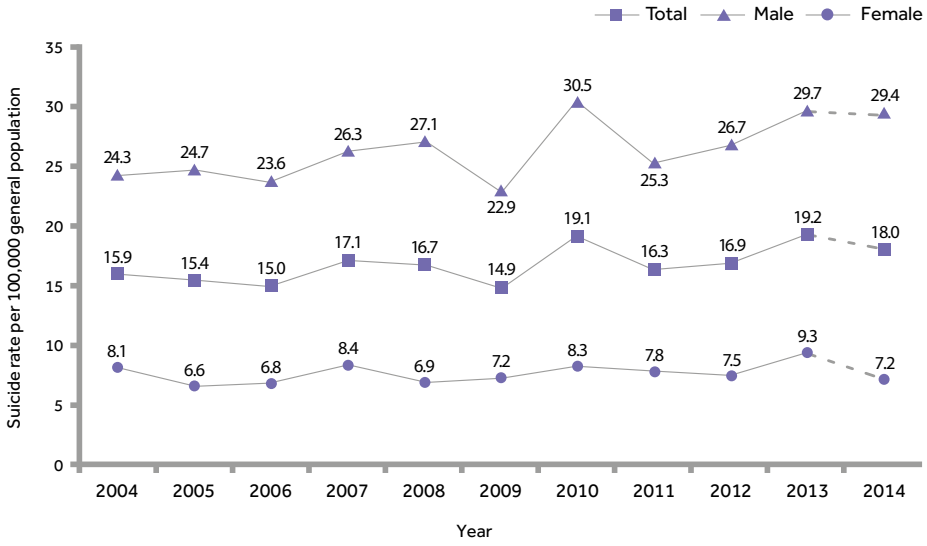
Figure 32: Number of suicides in the general population in Northern Ireland, by gender



Note: numbers in 2013 and 2014 include projections of final case numbers (see para 123)

SUICIDE RATES IN MEN IN NORTHERN IRELAND HAVE INCREASED.

Figure 33: Rates of suicide in the general population in Northern Ireland, by gender



Note: rates in 2013 and 2014 include projections of final case numbers (see para 123)

Variation in suicide rates by area of residence

125. There were only small variations by area of residence (by Health and Social Care Trust) at the time of death (average rate 2012-2014). The highest rate of suicide was in the Eastern Area, at 18.1 per 100,000 population, and the lowest in the Northern Area, at 16.1 per 100,000 population (Figure 34).

Figure 34: Rates of suicide per 100,000 population, by Health and Social Care Trust of residence (average rate 2012-2014)

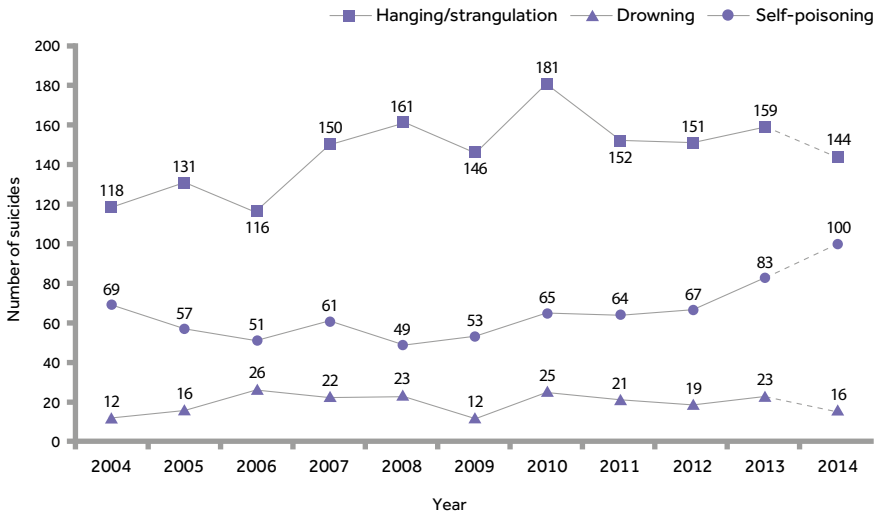
Area	Rate
Northern Area	16.1
Southern Area	17.1
Western Area	17.9
Eastern Area	18.1

Method of suicide

126. The most common methods of suicide were hanging and strangulation (referred to as hanging in the remainder of this report) (1,609, 57%), self-poisoning (overdose) (719, 25%), and drowning (215, 8%). Less frequent methods were firearms (93, 3%), gas inhalation (including carbon monoxide poisoning) (63, 2%), jumping and multiple injuries (mainly jumping from a height or being struck by a train) (50, 2%), and cutting and stabbing (36, 1%).

127. Deaths by hanging increased since 2004, with a peak in 2010 (Figure 35). Deaths by self-poisoning increased since 2008, and in 2014 rose to the highest number during the report period. There was no change in the number of deaths by other methods over the report period.

Figure 35: Suicide in the general population in Northern Ireland: main causes of death



PATIENT SUICIDE

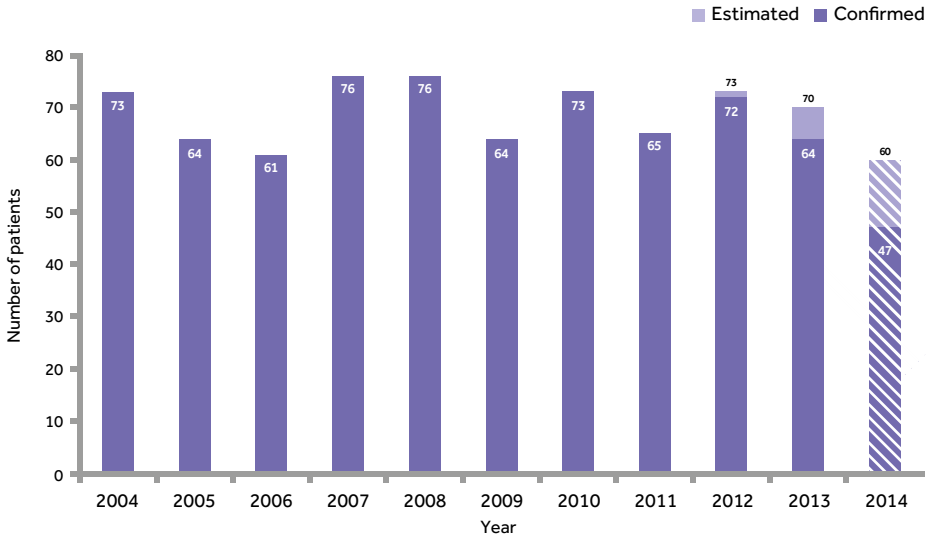
Patient suicide: numbers and rates

128. We have not received patient data from all Health and Social Care Trusts in Northern Ireland for the most recent years. Figures for the most recent years are therefore under-estimates and are likely to rise.

129. During 2004-2014, 755 suicides (27% of general population suicides) were identified as patient suicides, i.e. the person had been in contact with mental health services in the 12 months prior to death. This represents an average of 69 patient suicides per year. Patient characteristics are presented in Table 3.

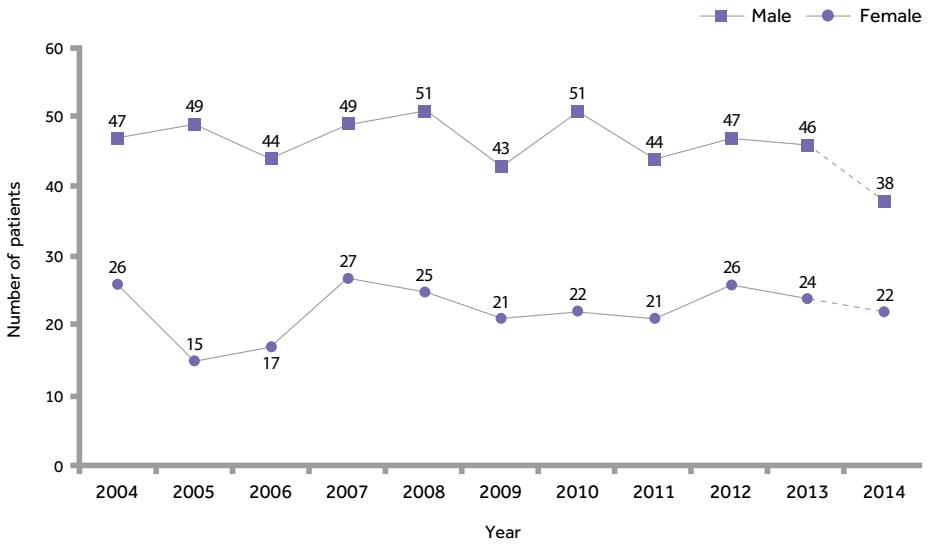
130. There was no overall change between 2004 and 2013 in the number of patient suicides overall (Figure 36) or by gender (Figure 37) or age-group. There was also no change in the rate of suicide, using a general population denominator (Figure 38).

Figure 36: Number of patient suicides in Northern Ireland



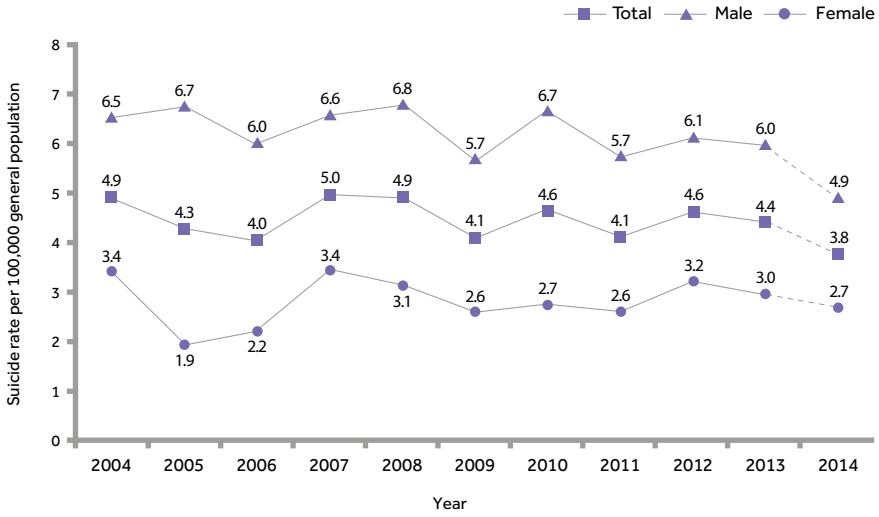
Note: 2014 figures are underestimated – see para 128

Figure 37: Number of patient suicides in Northern Ireland, by gender



Note: 2014 figures are underestimated – see para 128

Figure 38: Rates of patient suicide in Northern Ireland, by gender



Note: 2014 figures are underestimated – see para 128

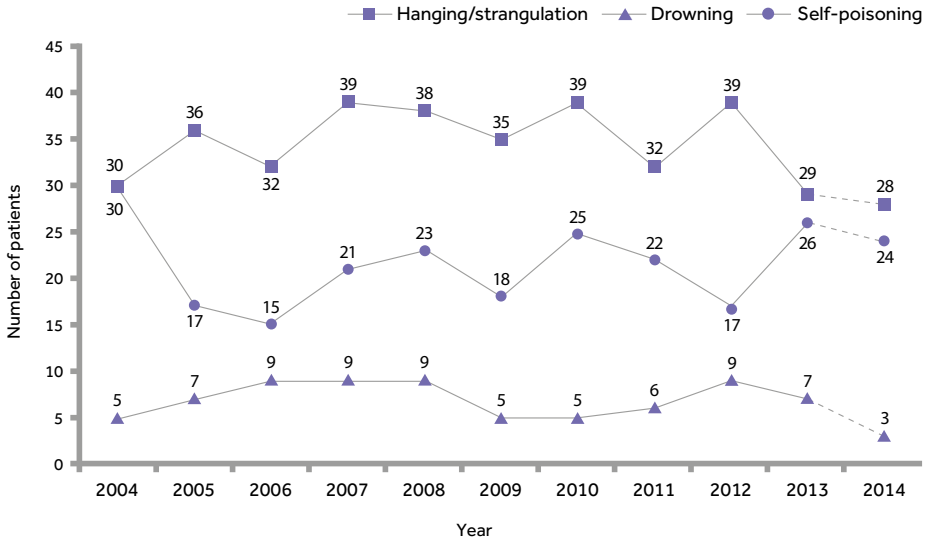
Table 3: Key characteristics of patients who died by suicide in Northern ireland (2004-2014)

	Number N=755	%
Demographic features:		
Age: median (range)	42 (16-92)	
Aged under 25	72	10
Male	509	67
Not currently married	544	74
Living alone	314	43
Unemployed	357	49
On long-term sick leave	136	19
Black & minority ethnic group	8	1
Homeless	12	2
Priority groups:		
In-patients	26	3
Recent (<3 months) discharge	141	19
Missed last contact in previous month	234	33
Non-adherence with medication in previous month	83	13
Clinical features:		
Any secondary diagnosis	428	57
Duration of illness (<12 months)	123	17
Over 5 previous admissions	93	13
First contact with mental health services:		
<12 months	185	27
>5 years	312	46
Last admission was a re-admission	74	16
Behavioural features:		
History of self-harm	534	72
History of violence	173	24
History of alcohol misuse	470	63
History of drug misuse	293	40
Contact with services:		
Last contact within 7 days of death	281	37
Symptoms of mental illness at last contact	445	61

Method of suicide by patients

131. The most common methods of suicide by patients were hanging (377, 50%), self-poisoning (238, 32%) and drowning (74, 10%). The number of suicides by hanging increased between 2004 and 2010 and has fluctuated since then (Figure 39). The most common substances used in self-poisoning were opiates (66, 32%), anti-psychotic drugs (27, 13%) and benzodiazepines/hypnotics (18, 9%). The number of deaths by opiates and anti-psychotics increased over the report period.

Figure 39: Patient suicide in Northern Ireland: main causes of death

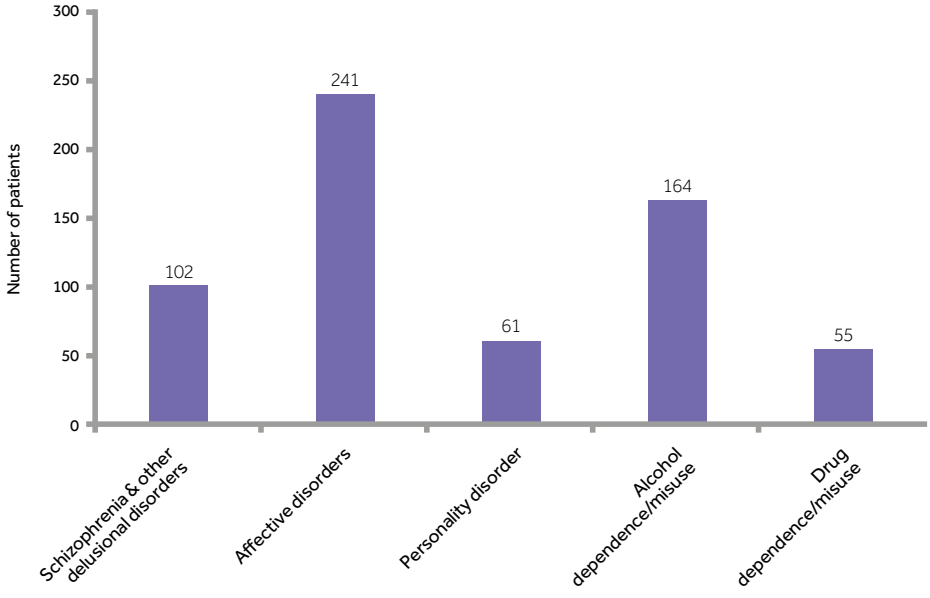


Note: 2014 figures are underestimated – see para 128

Primary diagnosis

132. The most common primary diagnoses were affective disorders (bipolar and depressive illness) (241, 32%); alcohol dependence/misuse (164, 22%) and schizophrenia (includes other delusional disorders) (102, 14%) (Figure 40).

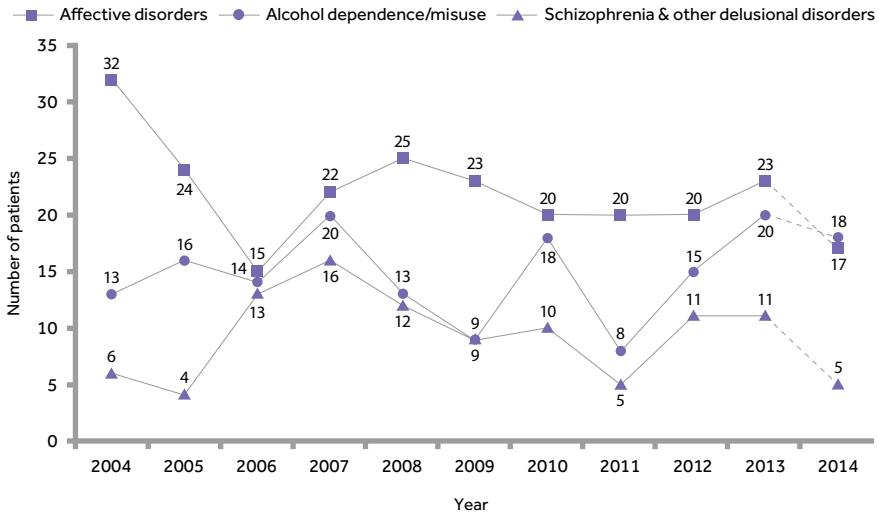
Figure 40: Patient suicide in Northern Ireland: primary diagnosis



133. There was no overall trend in the annual number of suicides in patients with affective disorders since a peak in 2004 (Figure 41). The number with schizophrenia has fallen since a peak in 2007 whilst the number with alcohol dependence/misuse has fluctuated, with no overall pattern.

134. 61 (8%) patients had a primary diagnosis of personality disorder. We are currently carrying out a detailed study investigating suicide in patients with personality disorder which will be published in 2017.

Figure 41: Patient suicide in Northern Ireland: main primary diagnosis



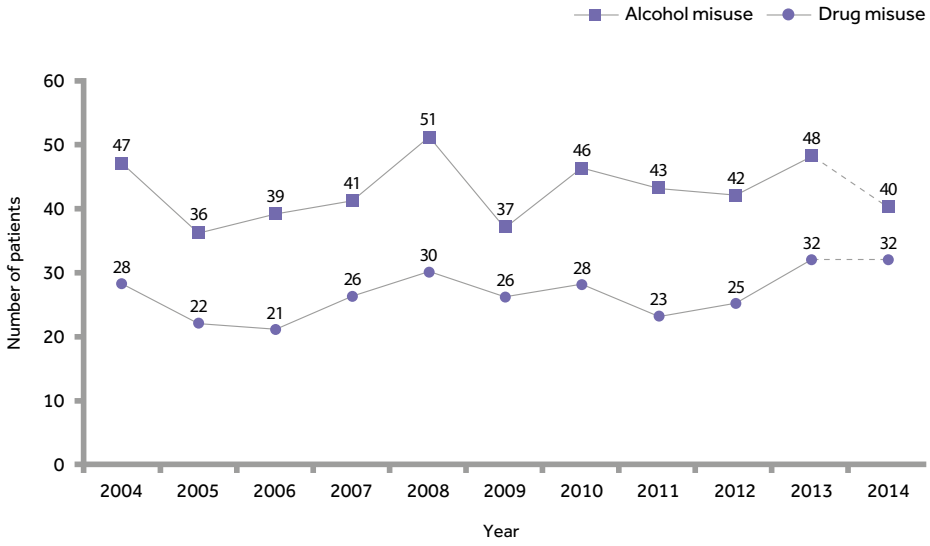
Note: 2014 figures are underestimated – see para 128

Patients with alcohol and drug misuse

135. There were 470 suicides in patients with a history of alcohol misuse, 63% of the total sample, an average of 43 deaths per year (Figure 42). 293 had a history of drug misuse, 40% of the total sample, an average of 27 deaths per year. 516 had a history of either alcohol or drug misuse or both, 69% of patient suicides, an average of 47 deaths per year.

136. Between 2004 and 2013, there was no overall trend in the annual number of patient suicides with a history of alcohol or drug misuse. Between 2011-2014, 28 (11%) patients were under drug services, 46 (19%) were under alcohol services, and 48 (25%) were under either drug or alcohol services.

Figure 42: Patient suicide in Northern Ireland: number with a history of alcohol or drug misuse



Note: 2014 figures are underestimated – see para 128

MENTAL HEALTH CARE

In-patient suicide

137. There were 26 in-patient deaths by suicide between 2004-2014, 3% of patient suicides. The highest number of in-patient suicides was in 2009 (5 deaths).

138. 5 patients died on the ward by hanging over the report period. 8 in-patients died after absconding from the ward, 32% of all in-patient suicides.

Crisis Resolution/ Home Treatment

139. There were 40 suicides in patients under crisis resolution/home treatment (CRHT) teams, 6% of all deaths. There was no overall trend in the number of suicides under CRHT, but the highest figures were in 2007 (7 deaths) and 2012 (7 deaths). Since 2005 there have been 38 suicides in patients under CRHT compared to 23 in in-patient care.

Patients recently discharged from hospital

140. There were 141 suicides within 3 months of discharge from in-patient care, 19% of all patient suicides and 19% of suicides in community patients, an average of 13 deaths per year. The annual number of post-discharge suicides peaked in 2004 but otherwise there was no trend over the report period.

141. Post-discharge suicides were most frequent in the first week after leaving hospital when 33 deaths occurred, an average of 3 per year. Of these, the highest number occurred on the first day (7 deaths) or the third day (7 deaths) after discharge.

Risk of suicide at final contact

142. Immediate risk of suicide at last contact was judged to be low or not present in 631 (90%), and long-term risk low or not present in 403 (59%).

HOMICIDE

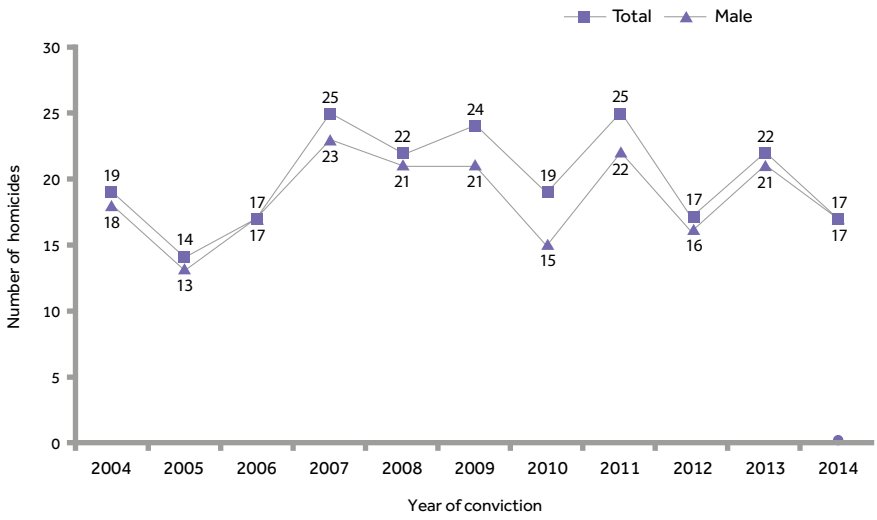
143. In 2004-2014, the Inquiry was notified of 221 homicide convictions, an average of 20 a year. There were 232 victims, an average of 21 per year.

Homicide in the General Population

144. The annual number of homicide convictions in the general population is shown in Figure 43. More recent homicide statistics are published by the Police Service of Northern Ireland.15 There was a rise in homicide convictions up to 2007, and the numbers have fluctuated since then with no overall trend.

145. The most common method of homicide was the use of a sharp instrument (72, 38%) followed by hitting and kicking (53, 28%).

Figure 43: Number of homicide convictions in the general population in Northern Ireland, by gender of offender



PATIENT HOMICIDE

146. During 2004-2014, 23 people convicted of homicide (10% of the total sample), were confirmed as patients, i.e. the person had been in contact with mental health services in the 12 months prior to the offence, an average of 2 per year. There were 24 victims. The numbers fluctuated over the report period but were too small to examine trends over time. Patient characteristics are presented in Table 4.

Table 4: Characteristics of patient homicide offenders in Northern Ireland

	Number N=23	%
Demographic features:		
Age of offender: median (range)	31	(18-48)
Male offender	22	96%
Not currently married	18	86%
Unemployed/long term sick	16 /18	89%
Living alone	<3	-
Homeless	4/17	24%
Behavioural features:		
History of violence	14	74%
Any previous convictions	18	86%
History of self-harm	14	67%
Primary diagnosis (lifetime):		
Schizophrenia & other delusional disorders	5	22%
Affective disorders (bipolar & depression)	<3	-
Personality disorder	5	22%
Alcohol dependence/misuse	7	30%
Drug dependence/misuse	3	13%
Symptoms of mental illness at the time of offence	8	38%
Offence variables:		
Male victim	19	83%
Age of victim: median (range)	50	(19-76)
Victims was a stranger	<3	-
Sharp instrument used	11	55%
Final outcome:		
Murder	7	30%
Manslaughter (diminished responsibility)	3	13%
Manslaughter (other including provocation, self-defence)	13	57%
Unfit to plead/not guilty by reason of insanity	<3	-
Final outcome:		
Prison	21	91%
Hospital order (with or without restriction)	<3	-
Other / non-custodial	<3	-

147. The relationship of victim to perpetrator was acquaintance (15, 68%); family member (3, 14%); spouse/partner (including ex-spouse/partner) (3, 14%).

148. There were no homicides committed by in-patients or patients under crisis resolution/home treatment teams. There were 4 homicides within 3 months of discharge from in-patient care, 18% of all patient homicides. 8 (36%) patients committed homicide 1-4 weeks after their last contact with services, 7 (33%) between 5-13 weeks and 7 (32%) more than 13 weeks..

149. 14 (74%) had been convicted of a previous violent offence. 9 (47%) had previously been in prison. 4 of 17 (24%) patients were known to have been non-adherent with drug treatment in the month before the homicide. 9 of 19 (47%) patients missed their final service contact before the homicide. In total, 12 (67%) were either non-adherent or missed final contact with services and were therefore not in receipt of planned treatment just prior to the homicide.

Primary diagnosis

150. 8 people had a history of schizophrenia (includes other delusional disorders), 4% of the total number of homicides. Of these, 7 (88%) had symptoms of psychosis (delusions and/or hallucinations) at the time of the offence. 5 (63%) were patients. 13 people had a history of personality disorders over the report period, 6% of all homicides. 5 (38%) were patients. 23 (100%) patients had a history of alcohol misuse. 20 (87%) patients had a history of drug misuse. 7 (30%) patients had a primary diagnosis of alcohol dependence/misuse; 3 (13%) had drug dependence/misuse. 7 (33%) had severe mental illness (schizophrenia or affective disorders) and co-morbid alcohol or drug dependence/misuse.

SCOTLAND

SCOTLAND

SUICIDE

151. In 2004-2014, the Inquiry was notified of 8,834 deaths in the general population that were registered as suicide or "undetermined", an average of 803 per year. These are referred to as suicides throughout the report.

Suicide in the General Population

152. Figures 44 and 45 show trends in general population suicide. An apparent increase in 2011 occurred due to the introduction of new death coding rules for drug misuse deaths in the International Statistical Classification of Diseases and Related Health Problems (ICD-10). This meant deaths that would previously have been coded as due to 'mental and behavioural disorders due to psychoactive substance use' are in some cases now coded as suicide or undetermined deaths. We therefore show figures based both on old and new coding to enable comparison with earlier years. Rates have fallen since 2011 using both the old and new coding rules (Figure 44).

Figure 44: Number of suicides in the general population in Scotland, by gender

Note: the unfilled markers in 2011-2014 indicate the number of suicides using the old death coding rules; see also the methods section on page 12

THERE WAS A FALL IN SUICIDE RATES IN SCOTLAND

Figure 45: Rates of suicide in the general population in Scotland, by gender

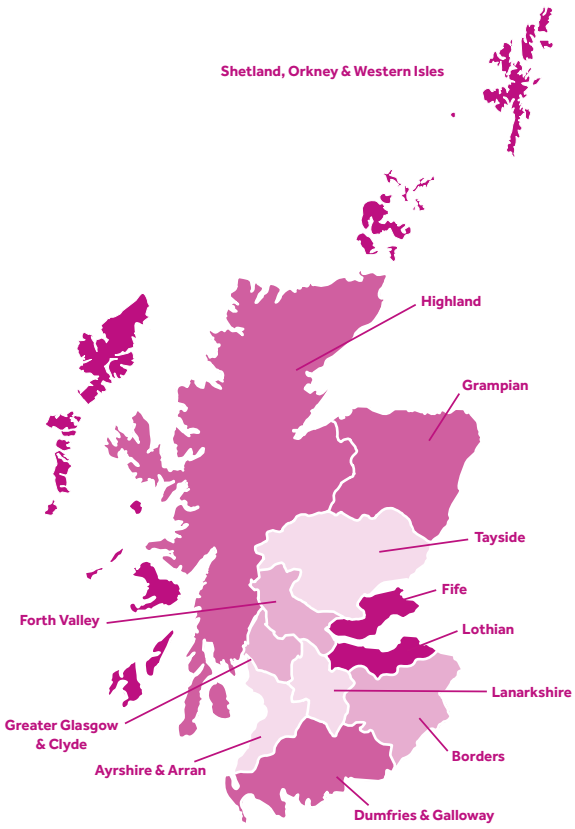
Note: the unfilled markers in 2011-2014 indicate rates using the old death coding rules – see page 12

Variation in suicide rates by area of residence

153. Suicide rates varied by area of residence (by NHS Health Board) at the time of death (average rate 2012-2014). The highest rate of suicide was in Lothian, at 18.9 per 100,000 population, and the lowest rate was in Ayrshire and Arran, at 13.2 per 100,000 population (Figure 46).

Figure 46: Rates of suicide per 100,000 population, by NHS Health Board of residence

Area	Rate
Ayrshire & Arran	13.2
Tayside	14.2
Lanarkshire	14.2
Grampian	14.3
Dumfries & Galloway	14.8
Highland	16.0
Forth Valley	16.4
Borders	16.6
Greater Glasgow & Clyde	16.7
Shetlands, Orkney & Western Isles	18.1
Fife	18.3
Lothian	18.9



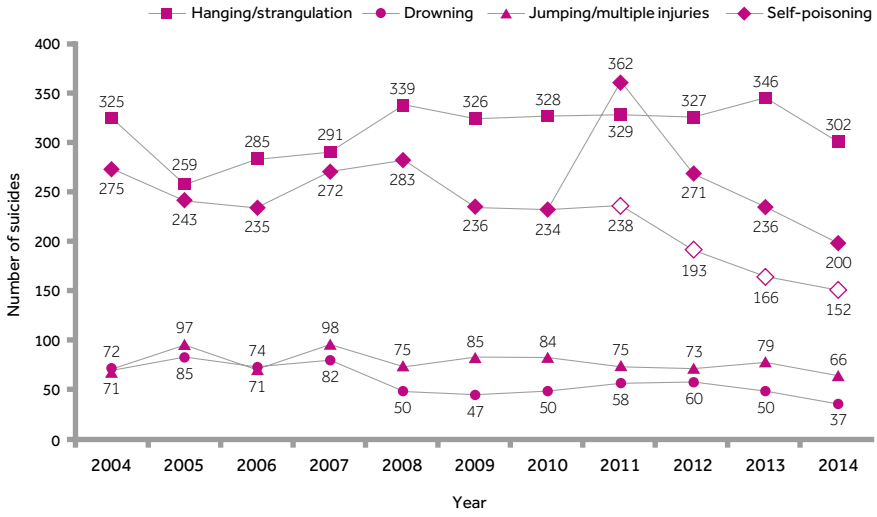
Note: rates have been colour coded by approximate quintile

Method of suicide

154. The most common methods of suicide were hanging and strangulation (referred to as hanging in the remainder of this report) (3,457, 39%), self-poisoning (overdose) (2,837, 32%), jumping and multiple injuries (mainly jumping from a height or being struck by a train) (874, 10%) and drowning (665, 8%). Less frequent methods were cutting and stabbing (195, 2%), gas inhalation (including carbon monoxide poisoning) (237, 3%), and firearms (117, 1%).

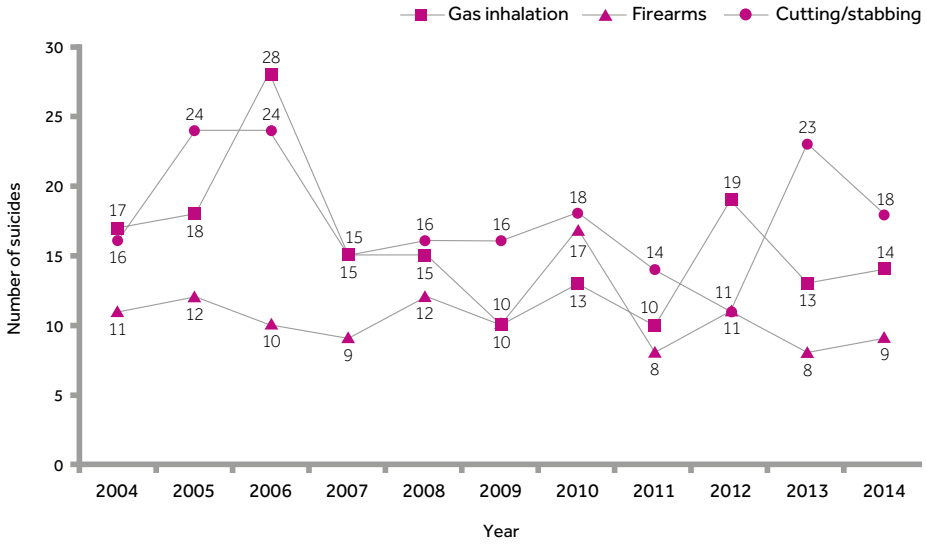
155. Deaths by hanging increased over the whole report period, though the number has not changed since 2008 (Figure 47). The apparent increase in suicides by self-poisoning in 2011-2012 is the result of the death coding rule change described earlier. Using the old coding rules, we estimate the number of self-poisonings in 2014 would drop from 200 to 152, the lowest figure for self-poisoning over the report period. Deaths by drowning decreased (Figure 47) whilst there was no overall change in the number of deaths by less common methods despite fluctuations year on year (Figure 48).

Figure 47: Suicide in the general population in Scotland: main causes of death



Note: unfilled markers in 2011-2014 indicate the number of self-poisonings using the old death coding rules– see page 12

Figure 48: Suicide in the general population in Scotland: other causes of death



PATIENT SUICIDE

Patient suicide: numbers and rates

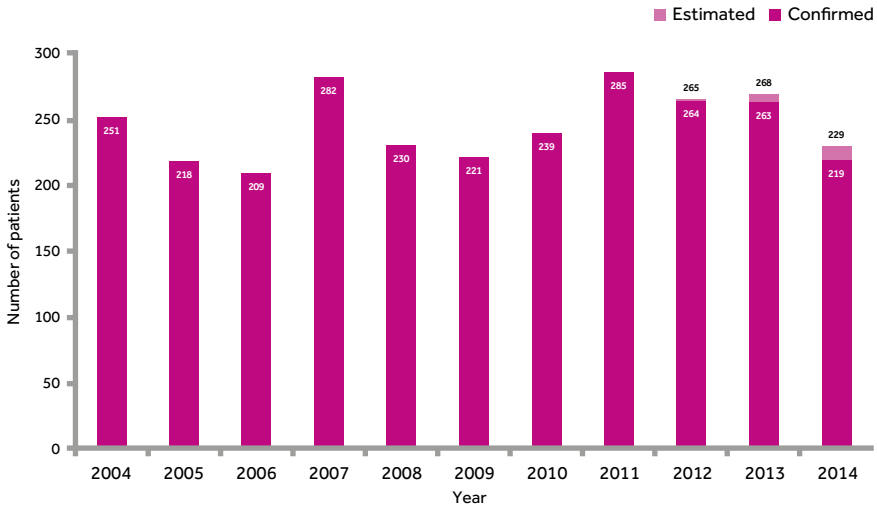
156. During 2004-2014, 2,697 suicides (31% of general population suicides) were identified as patient suicides, i.e. the person had been in contact with mental health services in the 12 months prior to death. This represents an average of 245 patient suicides per year. Patient characteristics are presented in Table 5.

157. The increase in suicide figures in 2011-2013 for the general population resulting from a death coding change is also reflected in the figures for patient suicides in these years (Figure 49). Based on the old coding rules, we calculate there would have been 20 fewer suicides in 2014, making the total 209 (Figure 50).

158. There was no overall change in the number or rate (using a general population denominator) of patient suicides in 2004-2013 (Figures 49-51). However, we are estimating a lower figure in 2014 than in recent years.

THERE WAS NO OVERALL CHANGE IN THE NUMBER OR RATE OF PATIENT SUICIDES IN SCOTLAND.

Figure 49: Number of patient suicides in Scotland



Note: the total estimated numbers in 2011, 2012, 2013 and 2014 would be 232, 227, 231 and 209 respectively, using the old death coding rules – see page 12

Figure 50: Number of patient suicides in Scotland, by gender

Note: unfilled markers in 2011-2014 indicate the number of suicides using the old death coding rules. – see page 12

Figure 51: Rates of patient suicide in Scotland, by gender

Note: unfilled markers in 2011-2014 indicate the rate of suicides using the old death coding rules – see page 12

Table 5: Key characteristics of patients who died by suicide in Scotland (2004-2014)

	Number N=2,697	%
Demographic features:		
Age: median (range)	42 (11-91)	
Aged under 25	229	8
Male	1,737	64
Not currently married	1,977	76
Living alone	1,377	54
Unemployed	1,278	50
On long-term sick leave	447	18
Black & minority ethnic group	49	2
Homeless	76	3
Priority groups:		
In-patients	180	7
Recent (<3 months) discharge	433	17
Missed last contact in previous month	697	28
Non-adherence with medication in previous month	257	11
Clinical features:		
Any secondary diagnosis	1,406	53
Duration of illness (<12 months)	351	13
Over 5 previous admissions	409	15
First contact with mental health services:		
<12 months	520	21
>5 years	1,358	56
Last admission was a re-admission	224	15
Behavioural features:		
History of self-harm	1,781	68
History of violence	646	25
History of alcohol misuse	1,526	58
History of drug misuse	1,190	45
Contact with services:		
Last contact within 7 days of death	994	37
Symptoms of mental illness at last contact	1,536	59

Method of suicide by patients

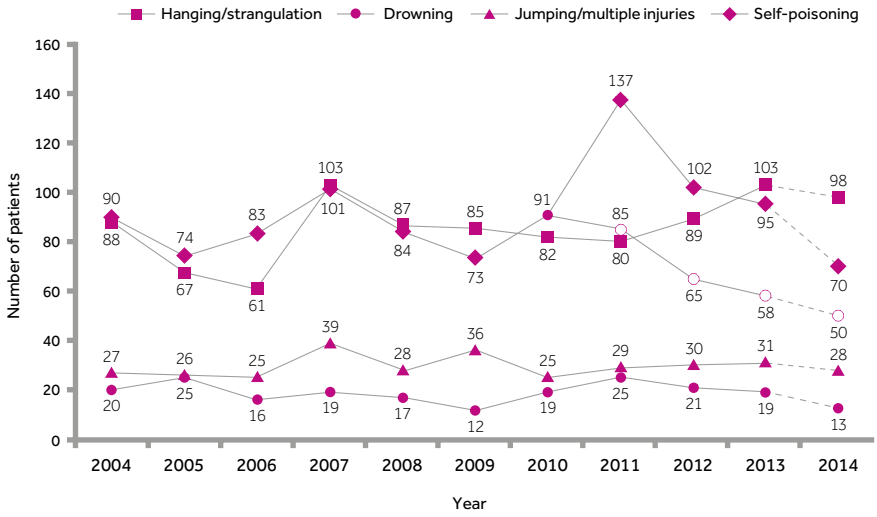
159. The most common methods of suicide by patients were self-poisoning (1,000, 37%) and hanging (943, 35%) – in 2013 and 2014, hanging has been the most common method. The increase in deaths by self-poisoning from 2011 was the result of the coding rule change described above – recent figures are comparatively low (Figure 52). The number of deaths by hanging has fluctuated over the report period though the last three years show an increase.

160. The most common substances used in deaths by self-poisoning were opiates (364, 39%), anti-psychotics (97, 10%), tricyclic antidepressants (87, 9%), and paracetamol/opiate compounds (84, 9%). Paracetamol was used in 56 (6%) deaths by self-poisoning.

161. The increase in suicides by overdose of opiates in 2011 reflects the change in coding rules (see above) (Figure 53), though numbers have fallen since. Using the old rules, there was no change in the number of opiate suicides over the report period. We have collected data on the types of opiates used since 2012, the most common being heroin/morphine (25, 32%) and methadone (21, 27%).

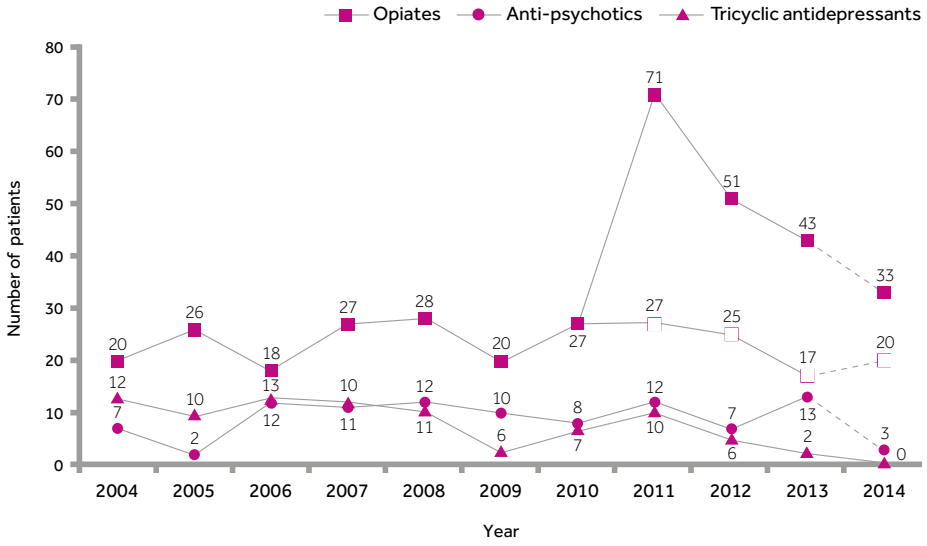
162. There has been a decrease in suicide by tricyclic antidepressants from an average of 11 deaths per year in 2004-05 to 4 deaths per year in 2012-13. There has also been a fall in suicide by paracetamol/opiate compounds over the report period, from an average of 12 deaths per year in 2004-05 to 3 deaths per year in 2012-13 (Figure 53).

Figure 52: Patient suicide in Scotland: main causes of death



Note: unfilled markers in 2011-2014 indicate the number of self-poisonings using the old death coding rules – see page 12

Figure 53: Patient suicide in Scotland: main substances used in deaths by self-poisoning

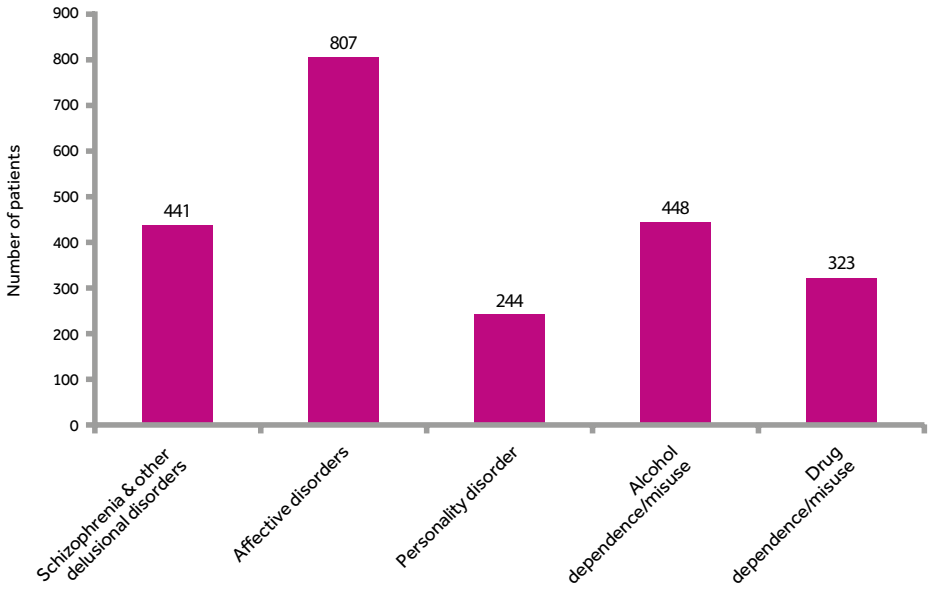


Note: unfilled markers in 2011-2014 indicate the number of deaths by opiates using the old death coding rules – see page 12

Primary diagnosis

162. The most common primary diagnoses were affective disorders (bipolar and depressive illness) (807, 30%); alcohol dependence/misuse (448, 17%) and schizophrenia (includes other delusional disorders) (441, 17%) (Figure 54).

Figure 54: Patient suicide in Scotland: primary diagnosis



164. There was no overall trend in the number of these suicides. The estimated increase in the number of patients with schizophrenia from 2011 is the result of death coding changes, though both methods of coding show a fall in 2014.

165. 244 (9%) patients had a primary diagnosis of personality disorder. There was no overall change during the report period. We are currently carrying out a detailed study investigating suicide in patients with personality disorder which will be published in 2017.

Patients with alcohol and drug misuse

166. There were 1,526 patients with a history of alcohol misuse, 58% of the total sample, an average of 139 deaths per year. 1,190 had a history of drug misuse, 45% of the total sample, an average of 108 deaths per year. 1,839 had a history of either alcohol or drug misuse or both, 69% of patient suicides, an average of 167 deaths per year.

167. There was no overall change in the number of suicides in patients with a history of alcohol misuse using the old coding rules, though both methods of coding show a fall in 2014 (Figure 55). The apparent rise in the number with a history of drug misuse is the result of the change in coding rules (Figure 56).

168. Between 2012-2014, 114 (17%) patients were under drug services, 90 (13%) were under alcohol services, and 181 (27%) were under either drug or alcohol services.

Figure 55: Patient suicide in Scotland: number with a history of alcohol misuse

Note: unfilled markers in 2011-2014 indicate the number of suicides using the old death coding rules– see page 12

Figure 56: Patient suicide in Scotland: number with a history of drug misuse

Note: unfilled markers in 2011-2014 indicate the number of suicides using the old death coding rules – see page 12

Websites promoting suicide

169. In 2012-2014 there were 13 (2%) patients who died by suicide after visiting a "pro-suicide" internet site, i.e. providing information on methods or encouraging suicide. As these figures are based on clinical reports, they may underestimate how often this occurs.

MENTAL HEALTH CARE

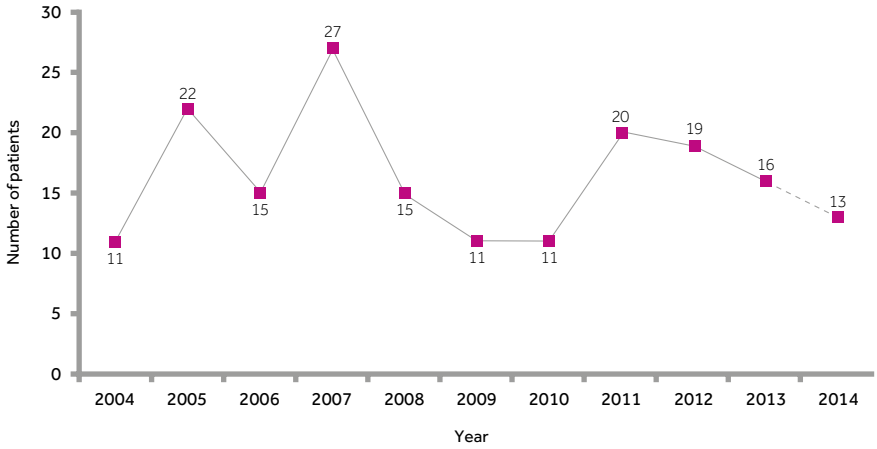
In-patient suicide

170. There were 180 in-patient suicide deaths between 2004-2014, 7% of patient suicides, an average of 16 deaths per year. The annual number of in-patient suicides fluctuated with no overall trend since 2004 (Figure 57).

171. Over the report period, there were 35 patients who died on the ward by hanging; this number fluctuated from 1 to 7 per year. The majority died by hanging in a single bedroom (16, 46%) or a toilet/bathroom (13, 37%). The most common ligature points were doors (11, 32%) or windows (6, 18%) and the most common ligatures were a belt (16, 46%) or shoelaces/items of clothing (7, 20%).

172. There were 51 suicides in detained in-patients, 28% of all in-patient suicides, an average of 5 per year. 49 in-patients died after absconding from the ward, 27% of all in-patient suicides, an average of 4 per year.

Figure 57: Patient suicide in Scotland: number of mental health in-patients



Crisis Resolution/ Home Treatment

173. There were 205 suicides in patients under crisis resolution/home treatment (CRHT) teams, 8% of the total sample, an average of 19 deaths per year. There has been no overall change since 2005 (Figure 58).

174. Since 2005 there has been a similar number of patient suicides under CRHT as in in-patient care, reflecting a change in the nature of acute care. Our estimates for 2014 mean there are now more patient suicides under CRHT compared to in-patients.

175. 70 (35%) CRHT patients died within 3 months of hospital discharge, 28 (22%) within 2 weeks. In 109 (53%) the patient lived alone.

Figure 58: Patient suicide in Scotland: number under crisis resolution/home treatment services

Patients recently discharged from hospital

176. There were 433 suicides within 3 months of discharge from in-patient care, 16% of all patient suicides and 17% of suicides in community patients, an average of 39 deaths per year. Despite fluctuations, there has been a downward trend since a peak in 2007, with the lowest figures in the last 3 years (Figure 59).

177. Post-discharge suicides were most frequent in the first week after leaving hospital when 80 deaths occurred, an average of 7 per year, 19% of all suicides within 3 months of hospital discharge (Figure 60). Of those who died in the first week after discharge, the highest number occurred on the third day after discharge (21, 26%). 78 (20%) died before the first follow-up appointment.

178. 31 (8%) patients died by suicide after being discharged from a non-local in-patient unit. This proportion increased to 11% of those who died within 2 weeks of discharge.

Figure 59: Patient suicide in Scotland: number who died within 3 months of in-patient discharge

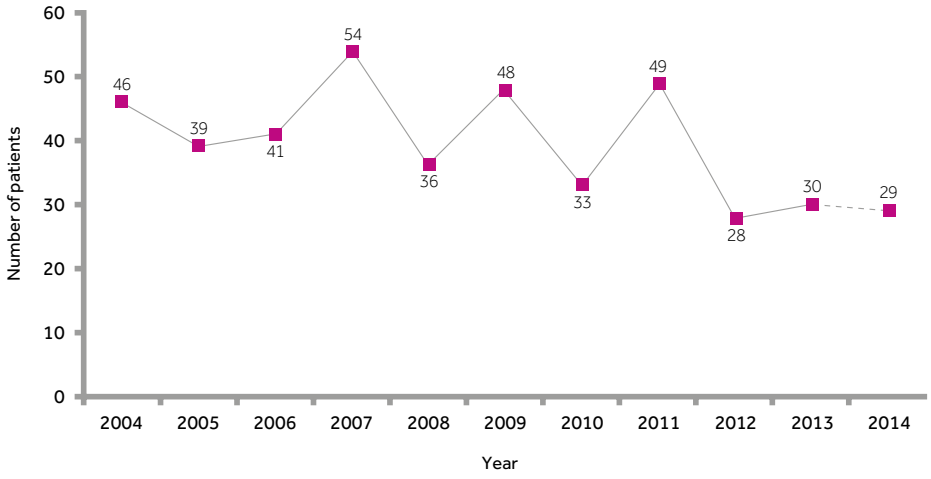
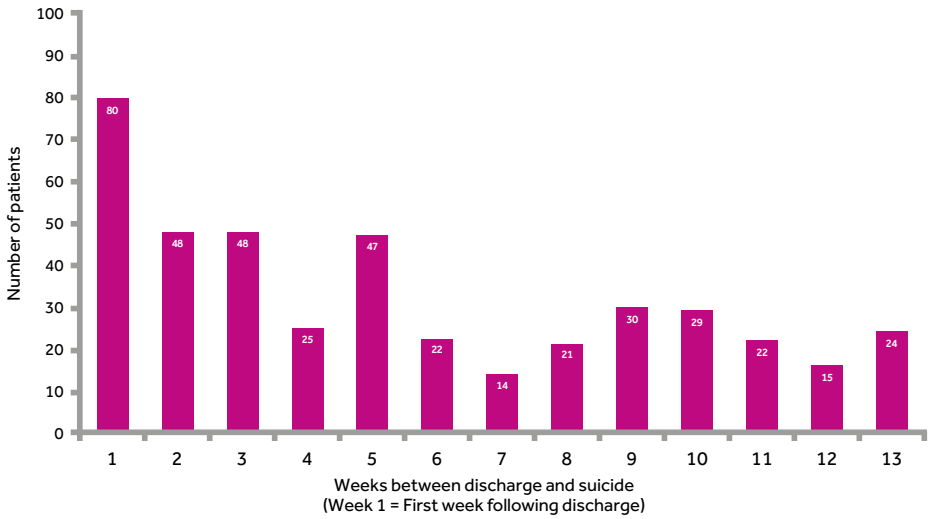


Figure 60: Patient suicide in Scotland: number of suicides per week following discharge (2004-2014)



Compulsory Treatment Orders in the community

179. There were 31 suicides in patients subject to a compulsory treatment order in the community between 2007-2014, 2% of all patient suicides, an average of 4 deaths per year. The highest number was in 2008 (8 patients).

180. 9 patients subject to a compulsory treatment order were non-adherent with drug treatment in the month before death and 5 missed the last appointment with services. Therefore 42% of those who died were not receiving care as intended despite compulsory treatment order powers. 12 deaths under a compulsory treatment order occurred within 3 months of hospital discharge.

Risk of suicide at final contact

181. Immediate risk of suicide at last contact was judged to be low or not present in 2,228 (89%), and long-term risk low or not present in 1,486 (60%).

HOMICIDE

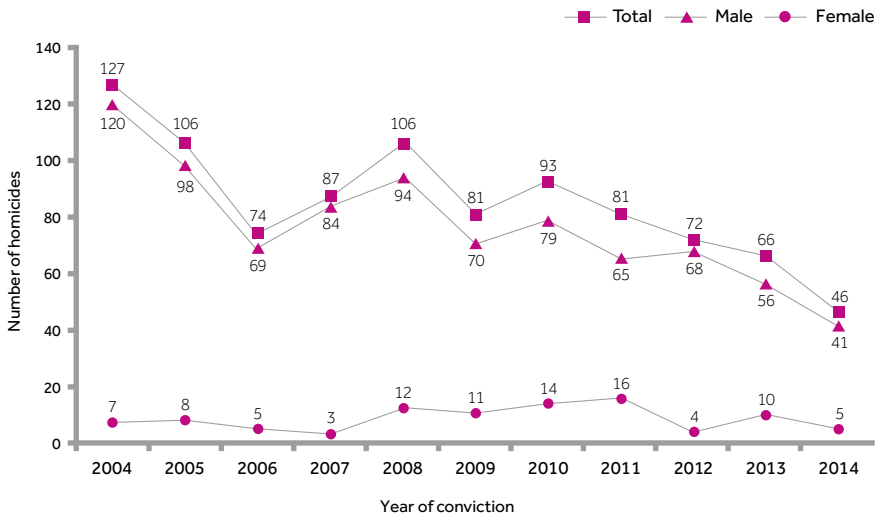
182. In 2004-2014 the Inquiry was notified of 939 homicide convictions, an average of 85 per year. There were 963 victims, an average of 88 per year.

Homicide in the General Population

183. There was a fall in the number of homicide convictions in the general population over the report period (Figure 61). These figures are provided as context for our data on homicides by people with mental illness. More recent homicide statistics are published by the Scottish Government based on the number of offences recorded annually.[16]

184. The most common method of homicide was the use of a sharp instrument (490, 55% of all homicides) followed by hitting and kicking (162, 18%); the number of homicides in both methods fell over the report period.

Figure 61: Number of homicide convictions in the general population in Scotland, by gender of offender



PATIENT HOMICIDE

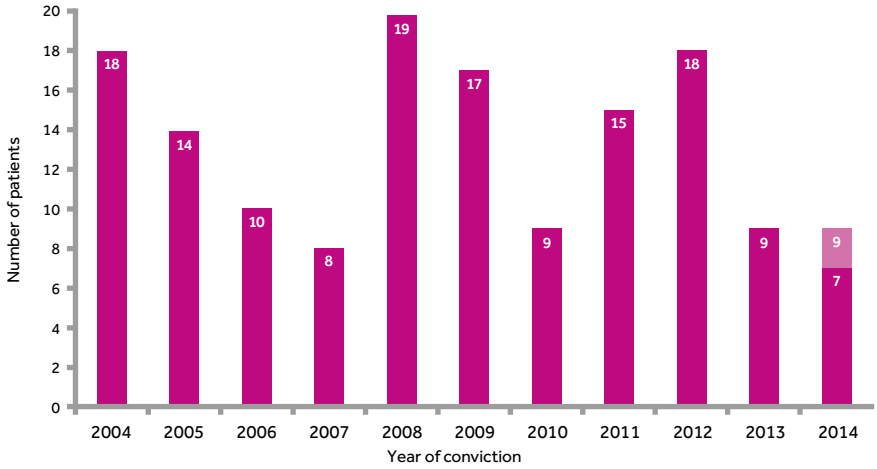
185. The following analysis is based on 144 confirmed patient cases for 2004-2014 plus an additional 2 cases which we have estimated based on the proportion of expected returns for 2014, a total figure of 146 (16% of all homicide convictions). This represents an average of 13 patient homicides per year. There were 149 victims, an average of 14 per year. Patient characteristics are presented in Table 6.

Table 6: Characteristics of patient homicide offenders in Scotland

	Number N=146	%
Demographic features:		
Age of offender: median (range)	31	(15-74)
Male offender	125	86%
Not currently married	89	75%
Unemployed/long term sick	104	84%
Living alone	31	29%
Homeless	5	5%
Behavioural features:		
History of violence	50	57%
Any previous convictions	83	86%
History of self-harm	72	56%
Primary diagnosis (lifetime):		
Schizophrenia & other delusional disorders	22	15%
Affective disorders (bipolar & depression)	11	8%
Personality disorder	11	8%
Alcohol dependence/misuse	21	14%
Drug dependence/misuse	50	34%
Symptoms of mental illness at the time of offence	18	18%
Offence variables:		
Male victim	109	75%
Age of victim: median (range)	39	(1-91)
Victims was a stranger	19	13%
Sharp instrument used	84	61%
Final outcome:		
Murder	100	69%
Culpable homicide	44	30%
Unfit to plead / insanity	3	2%
Sentencing outcome:		
Prison	128	88%
Hospital order (with or without restriction)	14	10%

186. The numbers fluctuated over the period of the report, with no overall trend (Figure 62). On average per year there were 11 homicides committed by male patients and 2 by female patients.

Figure 62: Number of patient homicides in Scotland



187. The relationship of victim to perpetrator was acquaintance (76, 54%); spouse/partner (including ex-spouse/partner) (25, 18%); family member (20, 14%); and stranger (19, 13%). The average number of stranger homicides was 2 per year over the report period, 4 cases occurred in 2013. There were 14 homicides in which a male patient killed a female spouse/partner (including ex-spouse/partner).

Mental health care settings

188. There were 16 homicides within 3 months of discharge from in-patient care, 12% of all patient homicides. Since 2005, 7 (7%) patients had been under crisis resolution/home treatment teams (CRHT) at the time of the homicide.

Contact with mental health services

189. 55 (41%) patients committed homicide 1-4 weeks after their last contact with services, 30 (22%) between 5-13 weeks and 50 (37%) more than 13 weeks later. In cases where the homicide occurred within a month of final service contact, 20 (36%) patients had a primary diagnosis of drug dependence/misuse, 13 (24%) had schizophrenia, 9 (17%) had recently been discharged from in-patient care and 5 (9%) were under the care of CRHT teams.

Forensic and clinical history

190. 75 (60%) had previously been in prison. Between 2004-2011, 50 (58%) had been convicted of a previous violent offence. We have been unable to obtain data on previous convictions for 2012-2014. 3 had a history of admission to a high, medium or regional secure unit. 11 (8%) patients had previously been involuntarily detained under mental health legislation.

Non-adherence and missed contact

191. 16 (13%) patients were non-adherent with drug treatment in the month before the homicide. 50 (37%) patients missed their final service contact before the homicide, an average of 5 per year. In total, 57 (44%) were either non-adherent or missed final contact with services and were therefore not in receipt of planned treatment just prior to the homicide.

Primary diagnosis

192. There were 30 homicides by people with a history of schizophrenia (includes other delusional disorders), 3% of the total sample, an average of 3 per year. Of these, 19 (79% excluding unknowns) had symptoms of psychosis (delusions and/or hallucinations) at the time of the offence. 22 offenders with schizophrenia (71%) were patients, an average of 2 per year. 4 (20%) patients were non-adherent with drug treatment in the month before the homicide. 6 (33%) patients with schizophrenia missed their final service contact before the homicide.

193. There were 35 homicides by people with a history of personality disorder in 2004-2014, 4% of all homicide convictions, an average of 3 per year. 11 (31%) offenders with personality disorder were patients.

194. 113 (89%) patients had a history of alcohol misuse. This was an average of 10 patient homicides per year. 122 (91%) patients had a history of drug misuse, an average of 11 per year. There were 131 patients who had a history of either alcohol or drug misuse or both, 95% of patients, an average of 12 homicides per year. 28 (20%) had severe mental illness (schizophrenia or affective disorders) and co-morbid alcohol or drug dependence/misuse, an average of 3 per year. The number with dual diagnosis has remained relatively constant with peaks of 6 cases in 2008 and 4 cases in 2012.

WALES

WALES

SUICIDE

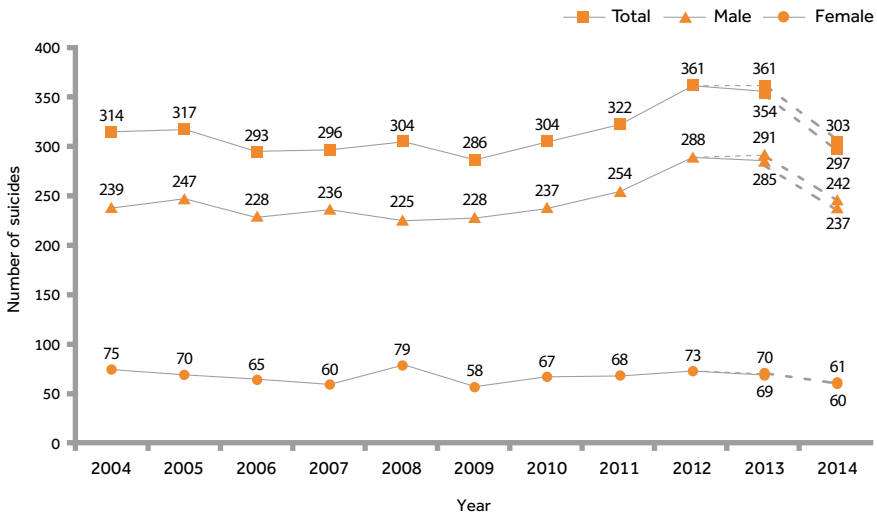
195. Between 2004-2014, the Inquiry was notified of 3,448 deaths in the general population that received a suicide or undetermined verdict, an average of 313 per year. These are referred to as suicides throughout the report.

196. There have been recent delays in death registrations in Wales that have affected our data collection. Figures obtained from Wales for 2014 are therefore underestimated and trends based on 2014 figures are not reliable.

Suicide in the General Population

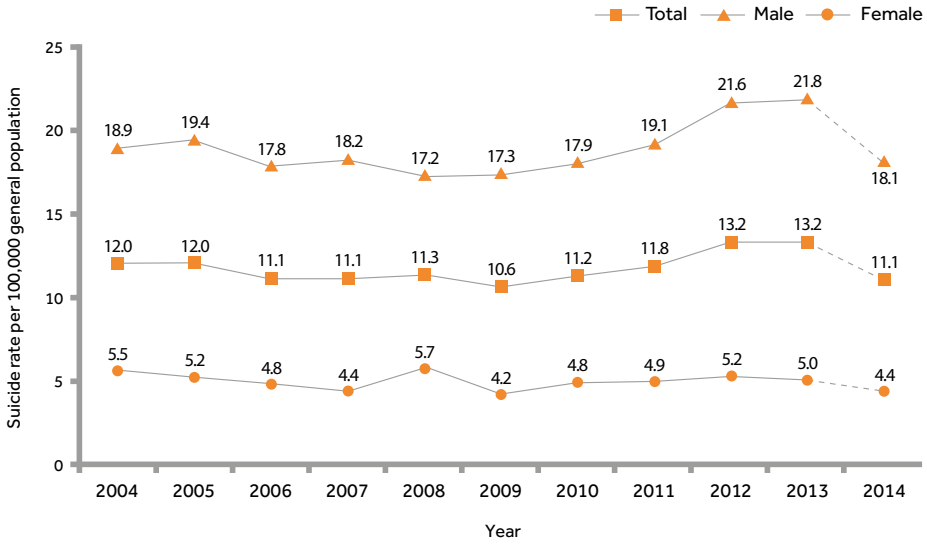
197. The number and rate of suicide in the general population rose between 2009 and 2013 (Figures 63 and 64). The rise was found in males only.

Figure 63: Number of suicides in the general population in Wales, by gender



Note: numbers in 2013 and 2014 include projections of final case numbers: 2014 figures are underestimated – see para 196

Figure 64: Rates of suicide in the general population in Wales, by gender



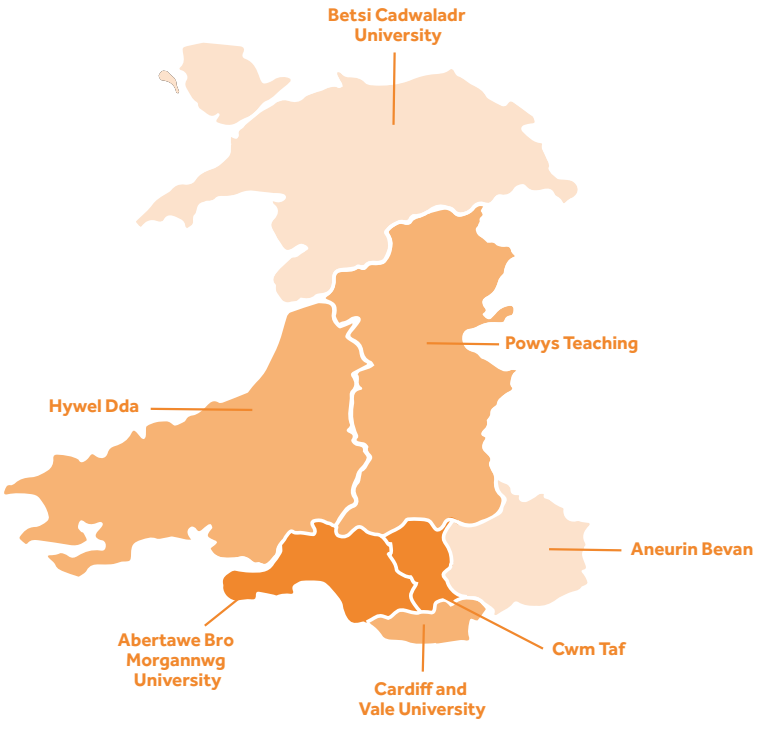
Note: numbers in 2013 and 2014 include projections of final case numbers: 2014 figures are underestimated – see para 196

Variation in suicide rates by area of residence

198. There was some variation in suicide rates by area of residence (by Health Board) at the time of death (average rate 2012-2014). The highest rate of suicide was in Cwm Taf, at 13.7 per 100,000 population, and the lowest in Betsi Cadwaladr University, at 10.3 per 100,000 population (Figure 65). As these 3-year averages include 2014, they are likely to be under-estimates (see above page 14).

Area	Rate
Betsi Cadwaladr University	10.3
Aneurin Bevan	10.4
Powys Teaching	11.4
Cardiff and Vale University	12.7
Hywel Dda	12.9
Abertawe Bro Morgannwg University	13.5
Cwm Taf	13.7

Figure 65: Rates of suicide per 100,000 population, by Health Board of residence (average rate 2012-2014)



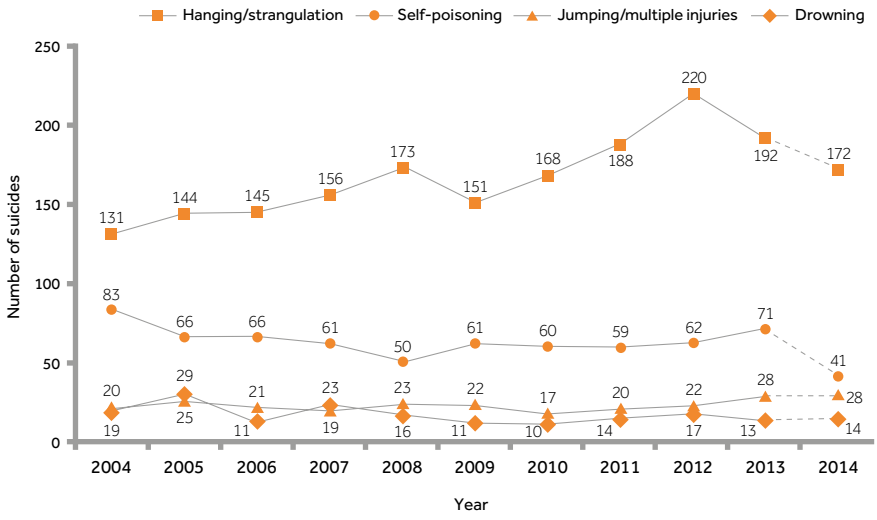
Note: rates have been colour coded by approximate tertile.

Method of suicide

199. The most common methods of suicide were hanging and strangulation (referred to as hanging in the remainder of this report) (1,840, 53%) and self-poisoning (overdose) (680, 20%). Less frequent methods were jumping and multiple injuries (mainly jumping from a height or being struck by a train) (245, 7%), drowning (177, 5%), gas inhalation (including carbon monoxide poisoning) (113, 3%), cutting and stabbing (98, 3%), and firearms (71, 2%).

200. Deaths by hanging increased (Figure 66). Of the less common methods, deaths by drowning and firearms decreased.

Figure 66: Suicide in the general population in Wales: main causes of death



Note: 2014 figures are underestimated – see para 196

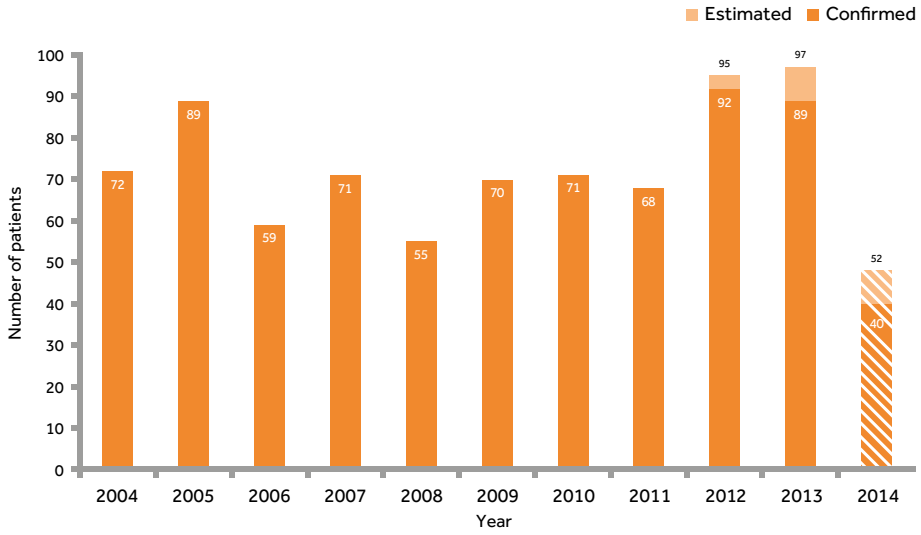
PATIENT SUICIDE

Patient suicide: numbers and rates

201. During 2004-2014, 799 deaths (23% of general population suicides) were identified as patient suicides, i.e. the person had been in contact with mental health services in the 12 months prior to death. This represents an average of 73 patient suicides per year. Patient characteristics are presented in Table 7.

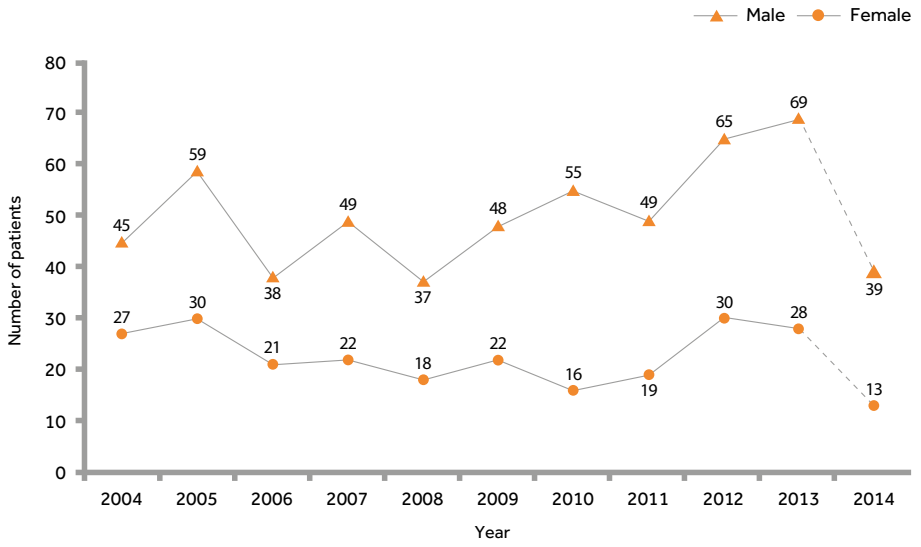
202. There was an increase in the number of patient suicides between 2004 and 2013 with a large rise in 2012 and 2013 (Figures 67 and 68). This is also reflected in the rate of patient suicide using a general population denominator (Figure 69).

Figure 67: Number of patient suicides in Wales



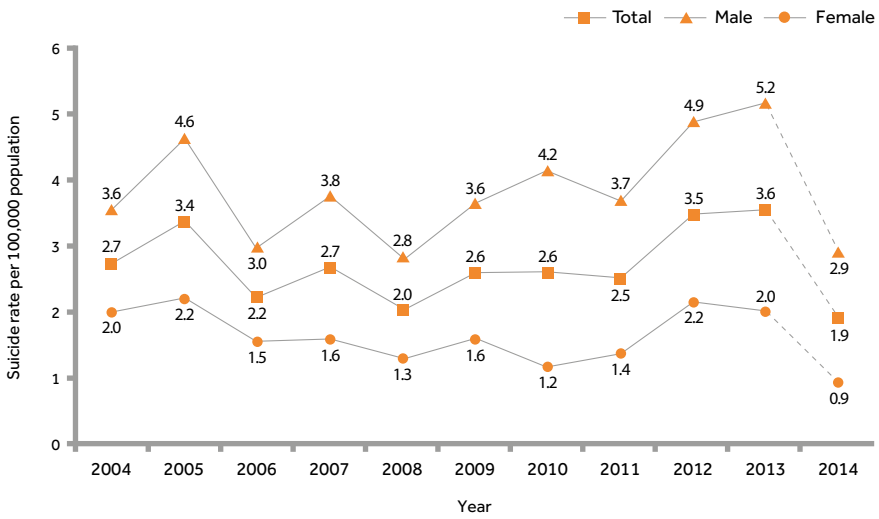
Note: 2014 figures are underestimated – see para 196

Figure 68: Number of patient suicides in Wales, by gender



Note: 2014 figures are underestimated – see para 196

Figure 69: Rates of patient suicide in Wales, by gender



Note: 2014 figures are underestimated – see para 196

Table 7: Key characteristics of patients who died by suicide in Wales (2004-2014)

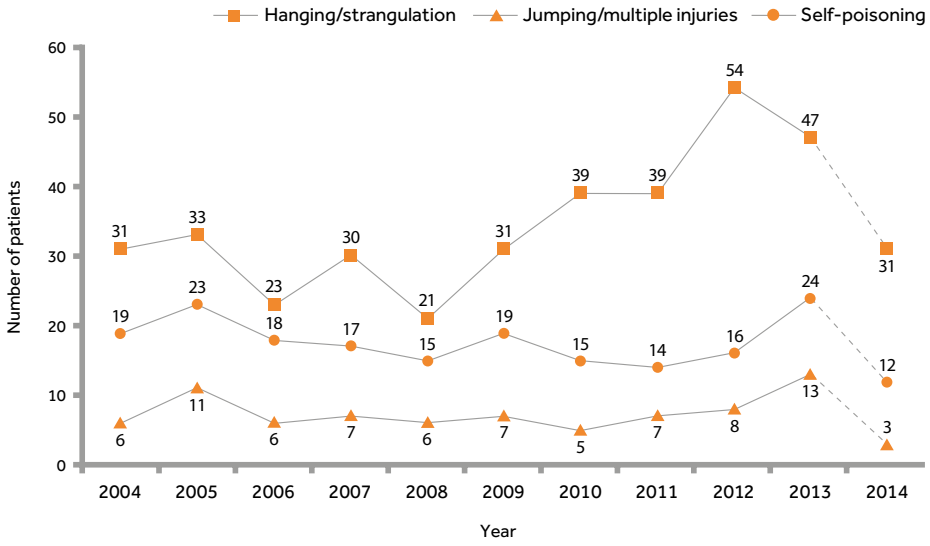
	Number N=799	%
Demographic features:		
Age: median (range)	45 (13-96)	
Aged under 25	48	6
Male	553	69
Not currently married	540	69
Living alone	337	44
Unemployed	320	42
On long-term sick leave	168	22
Black & minority ethnic group	13	2
Homeless	14	2
Priority groups:		
In-patients	63	8
Recent (<3 months) discharge	145	20
Missed last contact in previous month	192	26
Non-adherence with medication in previous month	89	12
Clinical features:		
Any secondary diagnosis	403	52
Duration of illness (<12 months)	162	21
Over 5 previous admissions	85	11
First contact with mental health services:		
<12 months	223	31
>5 years	331	45
Last admission was a re-admission	60	13
Behavioural features:		
History of self-harm	541	69
History of violence	195	25
History of alcohol misuse	383	49
History of drug misuse	293	38
Contact with services:		
Last contact within 7 days of death	371	47
Symptoms of mental illness at last contact	470	61

Method of suicide by patients

203. The most common methods of suicide by patients were hanging (379, 47%), self-poisoning (192, 24%) and jumping (79, 10%).

204. Hanging has increased since 2004 (Figure 70). The number of deaths by other methods has changed little but there appears to be a peak in 2013 in self-poisoning and jumping/multiple injuries. The most common substances used in deaths by self-poisoning were opiates (45, 25%), anti-psychotics (24, 13%), SSRI/SNRI antidepressants (20, 11%) and tricyclics (20, 11%).

Figure 70: Patient suicide in Wales: main causes of death

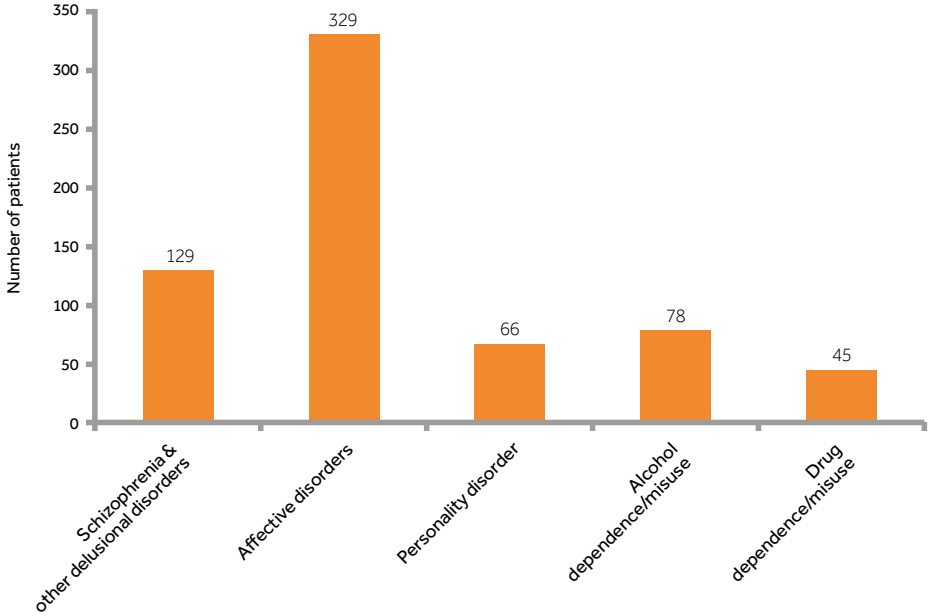


Note: 2014 figures are underestimated – see para 196

Primary diagnosis

205. The most common primary diagnoses were affective disorders (bipolar and depressive illness) (329, 42%), schizophrenia (includes other delusional disorders) (129, 16%) and alcohol dependence/misuse (78, 10%) (Figure 71).

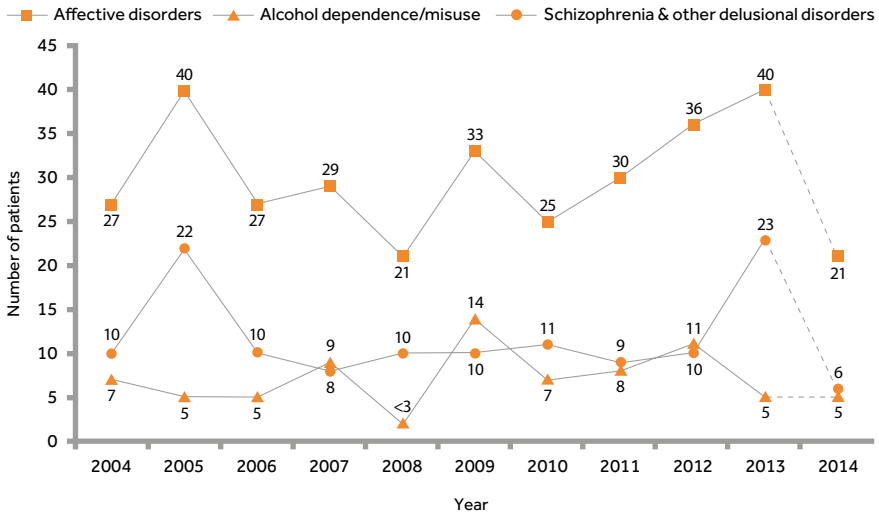
Figure 71: Patient suicide in Wales: primary diagnosis



206. There was no overall trend in the number of these suicides (Figure 72). The number of patient suicides with affective disorders increased between 2008 and 2013.

207. 66 (8%) patients had a primary diagnosis of personality disorder. We are currently carrying out a detailed study investigating suicide in patients with personality disorder which will be published in 2017.

Figure 72: Patient suicide in Wales: main primary diagnoses



Note: 2014 figures are underestimated – see para 196

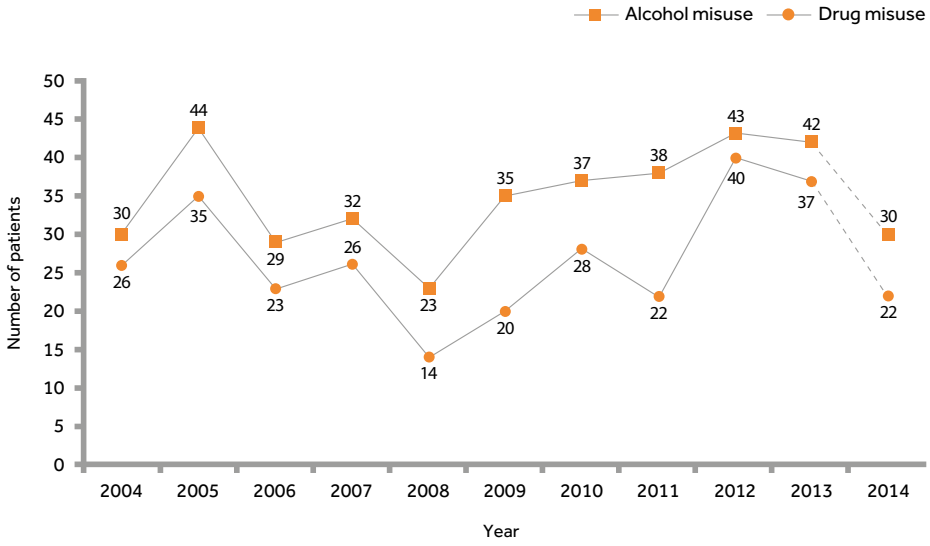
Patients with alcohol and drug misuse

208. There were 383 patients with a history of alcohol misuse, 49% of the total sample, an average of 35 deaths per year (Figure 73). 293 had a history of drug misuse, 38% of the total sample, an average of 27 deaths per year (Figure 73). 466 patients had a history of either alcohol or drug misuse or both, 59% of patient suicides, an average of 42 deaths per year.

209. In both alcohol and drug misuse, numbers have risen since a low point in 2008.

210. Between 2011-2014, 25 (9%) patients were under drug services, 25 (9%) were under alcohol services, and 29 (14%) were under either drug or alcohol services.

Figure 73: Patient suicide in Wales: number with a history of alcohol or drug misuse



Note: 2014 figures are underestimated – see para 196

Websites promoting suicide

211. Between 2011-2014 there were 4 (2% excluding unknowns) patients who died by suicide after visiting a "pro-suicide" internet site, i.e. providing information on methods or encouraging suicide. As these figures are based on clinical reports, they may underestimate how often this occurs.

MENTAL HEALTH CARE

In-patient suicide

212. There were 63 in-patient deaths by suicide in 2004-2014, 8% of patient suicides, an average of 6 per year.

213. Figures fluctuated with no overall trend, and have been low since a peak of 10 in-patient suicides in 2010

214. There were 15 patients who died on the ward by hanging. There were 13 suicides in detained in-patients, 21% of all in-patient suicides. 12 in-patients died after absconding from the ward, 19% of all in-patient suicides. The number has fallen since 2004.

Crisis Resolution/ Home Treatment

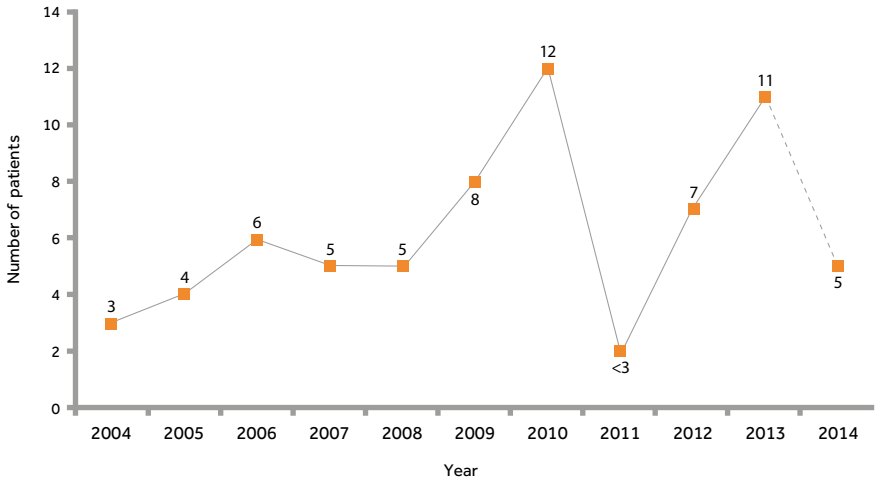
215. There were 68 suicides in patients under crisis resolution/home treatment (CRHT) teams, 9% of the total sample, an average of 6 deaths per year.

216. There was an increase in the number of suicides under CRHT, with a peak in 2010 and 2013 (Figure 74). Since 2007 there have been more patient suicides under CRHT than in in-patient care, reflecting a change in the nature of acute care.

217. In 27 (38%) the patient lived alone.

THERE WAS AN INCREASE IN THE NUMBER OF SUICIDES UNDER CRHT.

Figure 74: Patient suicide in Wales: number under crisis resolution/home treatment services



Note: 2014 figures are underestimated – see para 196

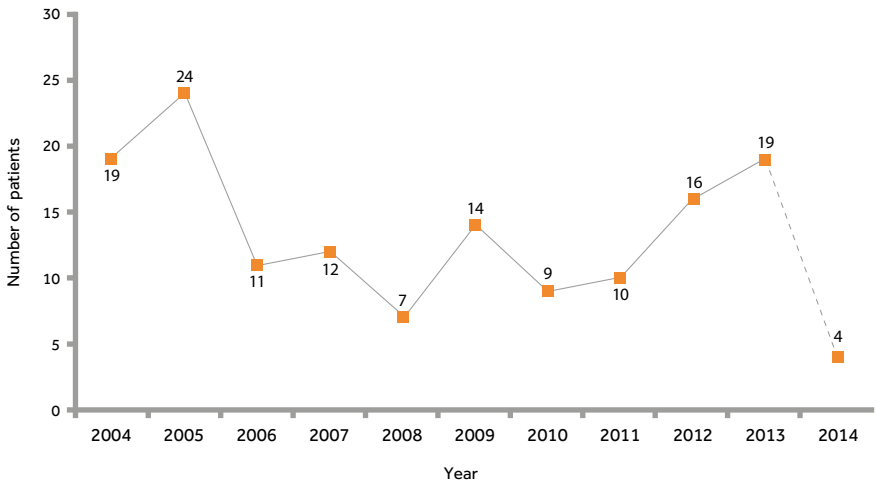
Patients recently discharged from hospital

218. There were 145 suicides within 3 months of discharge from in-patient care, 18% of all patient suicides and 20% of suicides in community patients, an average of 13 deaths per year.

219. The number of post-discharge suicides fell after a peak in 2005 but there has been no change since 2006 (Figure 75).

220. Post-discharge suicides were most frequent in the 2 weeks after leaving hospital when 51 deaths occurred, 38% of all suicides within 3 months of hospital discharge, an average of 5 deaths per year. There were 21 patients who died in the first week after discharge.

Figure 75: Patient suicide in Wales: number who died within 3 months of in-patient discharge



Note: 2014 figures are underestimated – see para 196

Community Treatment Orders

221. There were 7 suicides in patients subject to a community treatment order (CTO) in 2009-2014, 2% of all patient suicides in this time period.

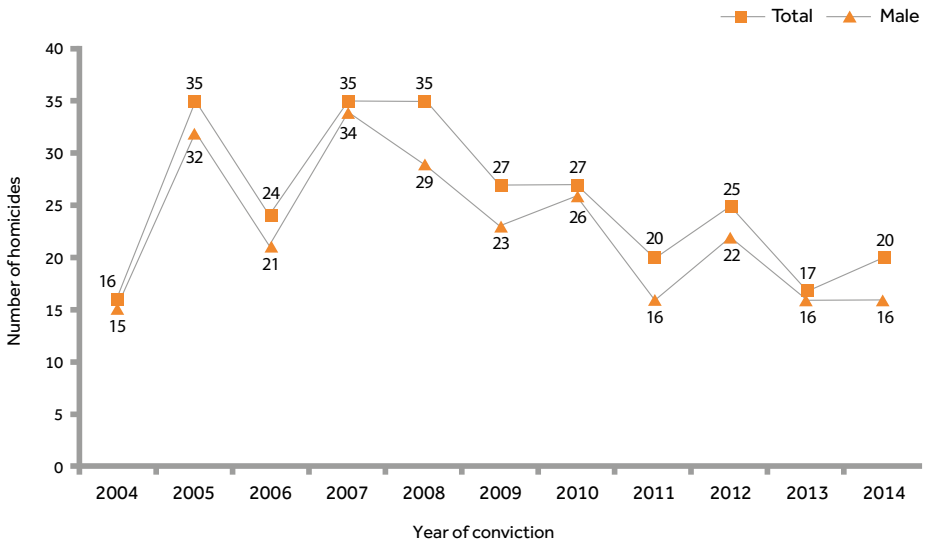
HOMICIDE

222. In 2004-2014 the Inquiry was notified of 281 homicide convictions, an average of 26 per year. There were 290 victims, an average of 26 per year.

Homicide in the General Population

223. The annual number of homicide convictions in the general population is shown in Figure 76. More recent data are published for England and Wales by the Office for National Statistics.[14] The number of homicide convictions has fallen since a peak in 2008. The most common method of homicide is the use of a sharp instrument (96, 35% of all homicides) followed by hitting and kicking (61, 22%).

Figure 76: Number of homicide convictions in the general population in Wales, by gender of offender



PATIENT HOMICIDE

224. During 2004-2014, 39 people convicted of homicide (14% of the total sample) were confirmed as patients, i.e. the person had been in contact with mental health services in the 12 months prior to the offence, an average of 4 per year. There were 45 victims, an average of 4 per year. Patient characteristic are presented in Table 8. On average per year there were 3 homicides committed by male patients and 1 by female patients.

Table 8: Characteristics of patient homicide offenders in Wales

	Number N=39	%
Demographic features:		
Age of offender: median (range)	34	(15-61)
Male offender	32	82%
Black and minority ethnic group	3	8%
Not currently married	15	68%
Unemployed/long term sick	18	86%
Living alone	4	17%
Homeless	4	17%
Behavioural features:		
History of violence	19	49%
Any previous convictions	26	72%
History of self-harm	20 / 33	61%
Primary diagnosis (lifetime):		
Schizophrenia & other delusional disorders	12	33%
Affective disorders (bipolar & depression)	6	17%
Personality disorder	5	14%
Alcohol dependence/misuse	6	15%
Drug dependence/misuse	<3	-
Symptoms of mental illness at the time of offence	13	33%
Offence variables:		
Male victim	23	59%
Age of victim: median (range)	37	(4-84)
Victims was a stranger	5	14%
Sharp instrument used	24	62%
Final outcome:		
Murder	21	54%
Manslaughter (diminished responsibility)	8	21%
Manslaughter (other including provocation, self-defence)	10	26%
Infanticide	<3	-
Unfit to plead/not guilty by reason of insanity	<3	-

225. The relationship of victim to perpetrator was acquaintance (15, 43%); spouse/partner (including ex-spouse/partner) (9, 26%); family member (6, 17%) and stranger (5, 14%). There were 7 homicides in which a male patient killed a female spouse.

226. There were no homicides committed by in-patients. There were 3 homicides within 3 months of discharge from in-patient care, 9% of all patient homicides.

227. 17 (49%) patients committed homicide 1-4 weeks after their last contact with services, 7 (20%) between 5-13 weeks and 11 (31%) more than 13 weeks later. Among those that did so within a month of their final service contact, 6 (40%) had schizophrenia.

228. 19 (49%) had been convicted of a previous violent offence. 14 (44%) had previously been in prison. 7 patients had previously been involuntarily detained under mental health legislation. 5 (17%) patients were non-adherent with drug treatment in the month before the homicide. 5 (14%) missed their final service contact before the homicide. In total, 9 (29%) were either non-adherent or missed final contact with services and were therefore not in receipt of planned treatment just prior to the homicide.

Diagnosis

229. Of the total number of homicides, 24 were by people with schizophrenia (includes other delusional disorders) 9% of the total sample, an average of 2 homicides annually. Of these, 22 (96%) had symptoms of psychosis (delusions and/or hallucinations) at the time of the offence. 12 (50%) people with schizophrenia were patients.

230. 16 had a diagnosis of personality disorder, 6% of the of all homicide convictions. 5 (31%) were patients. 29 patients had a history of alcohol misuse, 76% of the patient sample. This was an average of 3 patient homicides per year. 29 patients had a history of drug misuse, 76% of the patient sample, an average of 3 per year. There were 34 (89%) patients who had a history of either alcohol or drug misuse or both, an average of 3 homicides per year.

HOMICIDE FOLLOWED BY SUICIDE

231. Homicide followed by suicide is defined here as when the offender dies by suicide within 3 days of committing homicide. As there is no conviction for homicide in these cases, they are not included in the previous analysis.

232. We were notified of 11 offences between 2004 and 2014. There were 13 victims in total. Most of the offenders were male (9, 82%), with a median age of 44 (range 29-81).

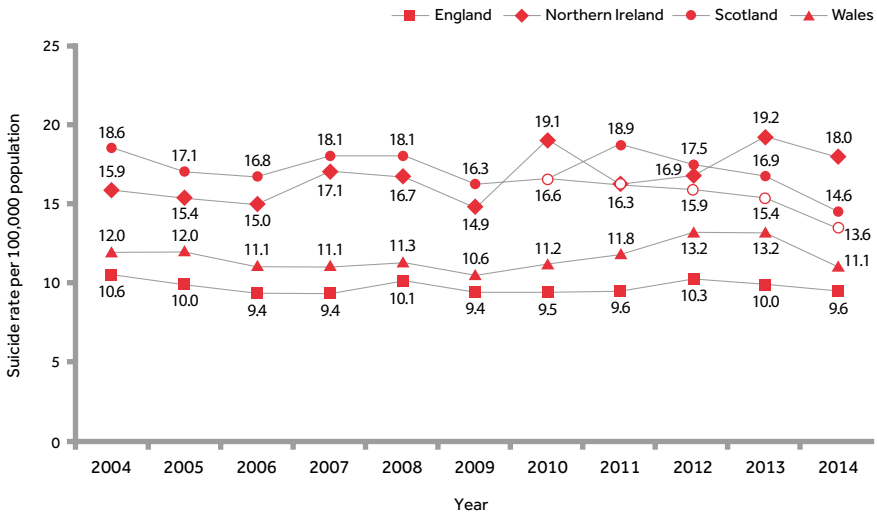
233. The relationship of victim to offender (principal victim if there was more than one victim) was most commonly spouse/partner (current/ex) (6, 55%)

UK-WIDE DATA

Suicide in the General Population

234. Suicide rates for each UK country are shown in Figure 77. Northern Ireland continues to have the highest general population rate, while the rate in Scotland, which was previously the highest, has fallen.

Figure 77: Suicide rates in the general population, by UK country



Note: unfilled markers in 2011-2014 indicate rates using the old death coding rules in Scotland (see page 12).

PATIENT SUICIDE

235. There were 18,172 suicides by patients in the UK in 2004-2014. We were also notified of 8 patient suicides in Jersey, from a general population total of 32 in 2012-2014 (25%). UK figures show a rise in the number of patient suicides since 2006 (Table 9), as a result of rising figures in England, and to a certain extent, Wales. The number of patient suicides is influenced by the number of people under mental health care which has also risen, and by changes to death coding (see page 12).

Table 9: Patient suicide: numbers by year and UK country (2004-2014)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
England	1,317	1,277	1,124	1,144	1,213	1,167	1,262	1,337	1,379	1,329	1,372
N. Ireland	73	64	61	76	76	64	73	65	73	70	60
Scotland	251	218	209	282	230	221	239	285 †232	265 †227	268 †231	229 †209
Wales	72	89	59	71	55	70	71	68	95	97	52

Note: figures from 2012 include estimates based on late notifications. †indicates the number of suicides in Scotland using the old death coding rules

236. During the report period, 28% of general population suicides were people who had been in contact with mental health services in the previous 12 months. This figure was similar for all UK countries but slightly higher in Scotland and lower in Wales (Table 10).

237. In a separate study we found the previously higher suicide rate in Scotland to be linked to higher rates of psychotropic drug prescription, possibly reflecting rates of mental disorder or help-seeking, and alcohol.[17]

238. Methods of suicide in patients are broadly similar across the UK countries, with hanging the most common method, followed by self-poisoning, with opiates the most commonly used type of drug in fatal overdose. In Scotland, self-poisoning has been as common as hanging over the study period (see Figure 52).

239. Alcohol and drug misuse was a common antecedent of patient suicide in all UK countries, varying between 45% and 63% (alcohol) and between 33% and 45% (drugs), but only a minority of patients were in contact with substance misuse services. In Scotland and Northern Ireland, figures for alcohol misuse were higher, as were figures for substance misuse service contact (see Figures 16, 42, 55 and 73).

240. Missed contact with services frequently preceded patient suicide in all UK countries, varying between 25% and 33%.

Table 10: Service contact by UK country (2004-2014)

	England	Northern Ireland	Scotland	Wales	UK
General population	49,269	2,841	8,834	3,448	64,392
In contact with services	13,921 (28%)	755 (27%)	2,697 (31%)	799 (23%)	18,172 (28%)

SUICIDE IN RECENT MIGRANTS

241. There were 348 patients in 2011-2014 who were either resident in the UK for less than 5 years (327 cases) or seeking permission to stay in the UK (20 cases). This represents 5% of all patient suicides, an average of 87 per year. In 272 (84%) their ethnicity was reported as white.

242. Around half of these patients were unemployed (176, 53%) or living alone (163, 49%). More were aged under 25 compared to other patients (37, 11% v. 438, 7%).

243. The most common primary diagnoses were affective disorders (141, 41%) and schizophrenia and other delusional disorders (63, 18%). A similar proportion to other patients had a history of self-harm (64%), alcohol (46%) or drug (37%) misuse.

244. 27 (8%) were current in-patients compared to 386 (6%) of the remaining sample, though this difference did not reach statistical significance. Of these, nearly half had been detained under the MHA (12, 46%), proportionally more than other in-patients (105, 28%).

245. Non-adherence with medication was significantly more common among these patients (50, 16% v. 641, 11%).

246. Overall these features are similar to the features of all patients who die by suicide. However, they may suggest more severe illness or greater social adversity.

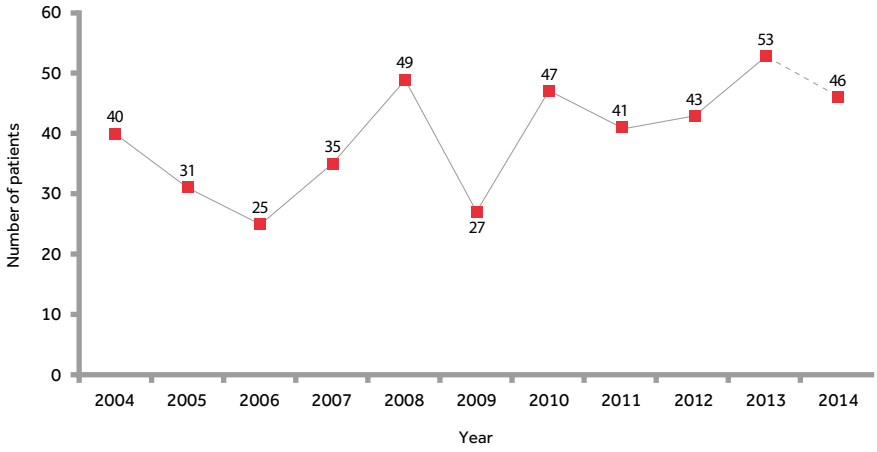
SUICIDE AND SOCIOECONOMIC FACTORS

247. In 2012-2014 there were 543 (13% excluding unknowns) suicides in patients who had experienced serious financial difficulties, such as debt or mortgage arrears, in the 3 months before death.

248. In 2009-2013, a higher proportion of patients were unemployed (3,853, 47%) compared to the pre-recession years of 2004-2007 (2,537, 41%).

249. Three percent (437 cases) of all patient suicides in 2004-2014 were homeless or of no fixed abode, an average of 40 deaths per year. The number of homeless patients increased over the report period (Figure 78).

Figure 78: UK patient suicide: number who were homeless



PATIENT HOMICIDE

250. During the study period there were 870 homicides by mental health patients, based on convictions. Overall, 11% of all homicides were by mental health patients (Table 11). This figure was similar across all UK countries, with the highest figure in Scotland where the general population homicide rate is also higher.

251. The majority of patients convicted of homicide had a history of alcohol and drug misuse - these figures were substantially higher than for patient suicide, varying between 74% and 100% (alcohol) and 78% and 91% (drugs).

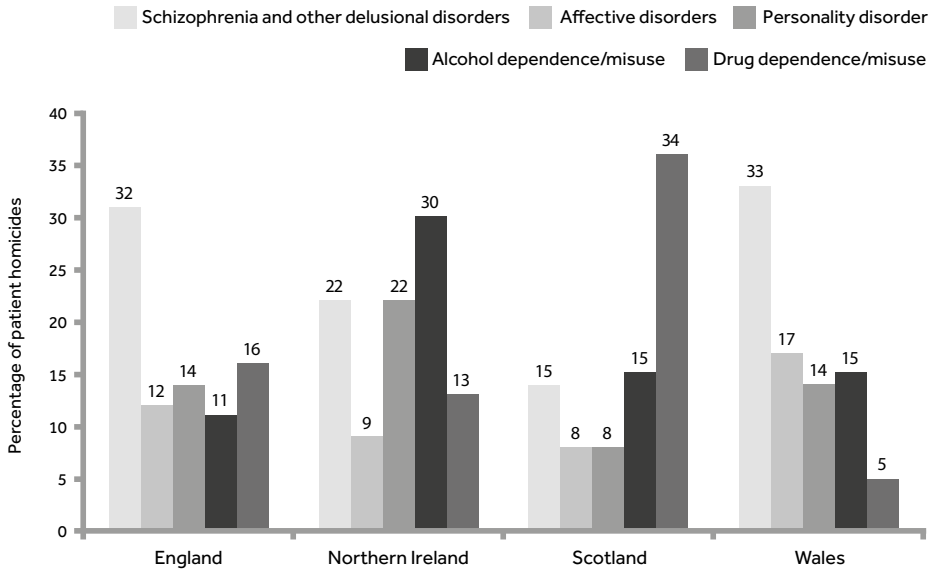
252. Missed contact with services was a common antecedent, found in over a third of patient homicides, a higher figure than for patient suicide.

Table 11: Characteristics of homicide offenders by UK country (2004-2014)

	England N=6,241		Northern Ireland N=221		Scotland N=939		Wales N=281		UK N=7,682	
Patients	662	11%	23	10%	146	16%	39	14%	870	11%
Schizophrenia	369	6%	8	4%	30	3%	24	9%	431	6%

253. The primary diagnoses for patients convicted of homicide varies by UK country (Figure 79). The commonest diagnosis in England and Wales was schizophrenia. A primary diagnosis of alcohol dependence or misuse was more common in Northern Ireland while a primary diagnosis of drug dependence or misuse was more common in Scotland.

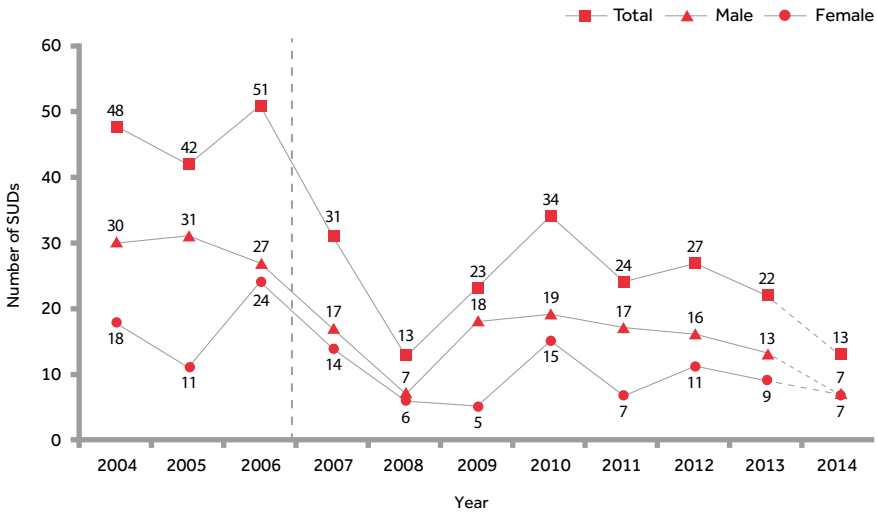
Figure 79: Primary diagnosis of patient homicide by UK country (2004-2014)



SUDDEN UNEXPLAINED DEATH (SUD) IN MENTAL HEALTH IN-PATIENTS (ENGLAND AND WALES)

254. During 2004-2014, there were 328 SUD cases in England and Wales, an average of 30 per year (Figure 80). There was an overall fall in the reported annual number of SUDs over the study period. However, due to a change in data provider, numbers since 2007 are not comparable with previous data. There has been no overall change since 2007, the average number being 23 per year, though our figures in 2013 and 2014 are showing a fall.

Figure 80: Number of sudden unexplained deaths in England and Wales, by gender



Note: between 2006 and 2007 data providers changed from the NHS-Wide Clearing Service (NWCS) to Hospital Episode Statistics (HES), therefore the numbers before and after 2006 are not strictly comparable.

255. 143 (48%) had a history of cardiovascular disease; 78 (26%) had a history of respiratory disease; 37 (12%) had a history of cerebrovascular disease, and 20 (7%) had a history of epilepsy. 187 (62%) had a history of any physical illness.

256. 24 (8%) were receiving 2 or more anti-psychotic drugs (i.e. polypharmacy).

257. There were 42 (13%) SUD cases in patients from black and minority ethnic (BME) groups over the report period. The number of these deaths varied from 1-8 per year and showed no trend over time.

Restraint

258. There were 6 deaths within 1 hour of restraint in 2004-2014. We do not know whether restraint caused these deaths.

259. There were 26 deaths within 24 hours of restraint in 2004-2014, ranging from 0-4 per year. The number of post-restraint deaths is too small to identify a trend. There were 9 deaths in BME patients within 24 hours of restraint.

Patients aged under 45

260. There were 84 (26%) patients under 45 years, an average of 8 per year. The average figure was 12 for 2004-07 and 6 for 2011-13.

261. 16 (21%) had a history of cardiovascular disease; 14 (18%) had a history of respiratory disease and 6 (8%) had a history of epilepsy. 48 (62%) had no history of these physical illnesses.

262. 11 (14%) patients were receiving 2 or more anti-psychotic drugs (i.e. polypharmacy).

263. Patients aged under 45 were more likely to be from a BME group (23 cases, 28% v. 19 cases, 9%).

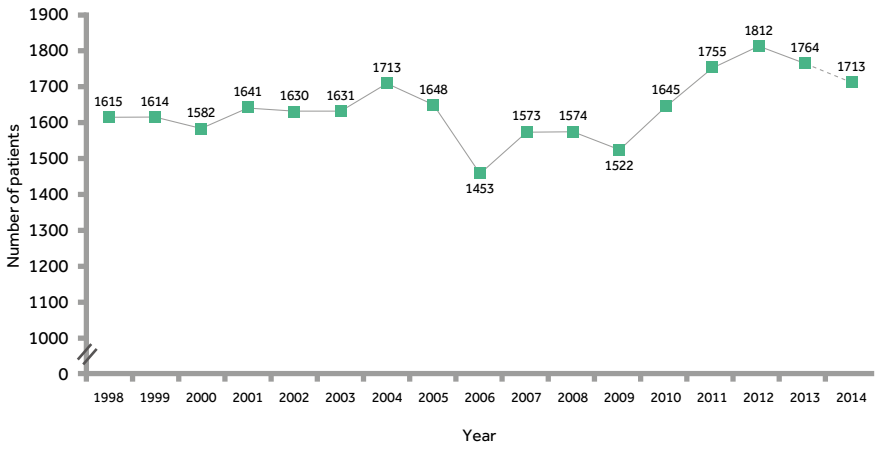
ON AVERAGE 8 SUDDEN UNEXPLAINED DEATHS OCCUR EACH YEAR IN ENGLAND & WALES IN PATIENTS AGED UNDER 45 BUT NUMBERS MAY HAVE FALLEN RECENTLY

CONCLUSIONS FROM 20 YEARS OF RESEARCH ON PATIENT SAFETY

264. There were 27,885 suicides by patients in the UK in 1998-2014: 27% of suicides in the general population, an average of 1,640 deaths per year (Figure 81). During the same period there were 1,277 patient homicides: 11% of homicide convictions in the general population, an average of 75 per year (Table 13). We have studied this unique and tragic database to consider:

— whether services are becoming safer, i.e. more effective in preventing suicide
— how the challenge of suicide prevention in mental health care has changed
— homicide by mental health patients
— components of a safer mental health service

Figure 81: Number of patient suicides in the UK 1998-2014



ARE SERVICES BECOMING SAFER?

265. The number of patient suicides annually in the UK overall has increased since a low figure in 2006, a rise of 260 (18%) – this mainly reflects a rise in England. The number of suicides in the UK general population has also increased but by a smaller amount (325, 6%).

266. Taken at face value, this might be interpreted as showing a decline in safety. However, we need to calculate rates of patient suicide, taking into account the changing number of people under mental health care - this is possible for England where patient numbers are reported via the Mental Health Services Data Set (MHSDS).[11]

267. In England the rise in patient suicides has been 248 (22%) since 2006. This is similar to the rise in patient numbers, but changes in the method of estimation mean that figures from 2011 are not directly comparable to earlier years. Even so, the rate of patient suicide fell in the years pre-2011 and again post-2011, suggesting an overall fall (see Figure 9, page 23).

268. However, the rise in patient numbers is likely to have changed the nature of the patient population, bringing under mental health care people at lower suicide risk - the assumption is that people at high risk were always referred. This would mean that a fall in the patient suicide rate would be expected.

269. In summary, despite a rise in patient suicide numbers, the rate of suicide in mental health patients appears to have fallen, though this may be explained in part by a change in the patient population.

270. The rise in the number of patient suicides is important in that 29% of general population suicides are now in mental health patients, compared to 24% when we started data collection. The preventive potential of mental health services has therefore increased, i.e. mental health can have a greater impact on overall suicide figures.

Suicides in acute care

271. The number of suicides by in-patients in the UK has shown a large and steady fall since our early years of data collection, a fall of 69% from a peak in 2000 to our estimated figure for 2014. The fall has been particularly marked since 2003 (Figure 82).

272. The fall mainly reflects the fall in England where there has been a 68% decrease in in-patient suicides since the data collection began. During this period (i.e. since 1998) data from the Health and Social Care Information Centre (HSCIC) showed the number of beds fell by 40% and the number of admissions by 20%, much less than the fall in suicides. In a previous study we confirmed that there had been a fall in the rate as well as the number of in-patient suicides, i.e. taking into account the reduced use of beds.[18]

273. Similarly, the fall in England was more marked after 2003, the year of a Department of Health requirement to remove ligature points from wards, such as non-collapsible curtain rails. The drop in numbers was seen not only in deaths by hanging on the ward but in in-patient suicides overall, on and off the ward, by all methods - suggesting a wider improvement in ward safety.

274. In recent years there has also been a rise in the number of suicides by patients under crisis resolution teams, mainly in England and Wales, set up as an alternative to in-patient care. The period after discharge from hospital remains one of high suicide risk, particularly in the first 1-2 weeks.

Figure 82: Number of in-patient suicides in the UK 1998-2014

HOW IS THE SUICIDE PREVENTION CHALLENGE DIFFERENT AFTER 20 YEARS?

Changes in features of patient suicides 1998-2013

275. The following section examines changes in the features of patients who have died by suicide since we began data collection, with comparison of key characteristics of patients who died by suicide in 1998-2000 and 2011-2013. The proportion of suicides in a particular group, as a percentage of all suicides are compared between 1998-2013 and trends examined over time, and data for 2014 are also shown. For some variables, data were not collected until 1999 and we therefore compare the figures between 1999-2013.

Longitudinal trends: demographic and social characteristics

276. Table 12 shows a comparison of demographic characteristics of patients who died by suicide in 1998-2000 and 2011-2013.

Table 12: Demographic features of patients in the UK who died by suicide in 1998-2000 compared to 2011-2013

	1998-2000 N=4,811	2011-2013 N=5,331
Demographic features:	Number (%)	Number (%)
Age:		
Under 25	442 (9%)	369 (7%)*
25-34	1,193 (25%)	825 (15%)*
35-44	1,112 (23%)	1,290 (24%)
45-54	928 (19%)	1,365 (26%)*
55-64	578 (12%)	793 (15%)*
65 or over	558 (12%)	685 (13%)
Male	3,225 (67%)	3,624 (68%)
Living alone	2,004 (43%)	2,492 (49%)*
Unemployed	1,993 (43%)	2,480 (49%)*
Homeless	114 (2%)	137 (3%)

*p<0.01

277. There has been no change in the male to female ratio but the age profile of patient suicides has changed with a fall in the proportion of patients who are under 35, and a rise in 45-54 and 55-64 year olds. Living alone and unemployment have become more frequent antecedents, suggesting greater social adversity.

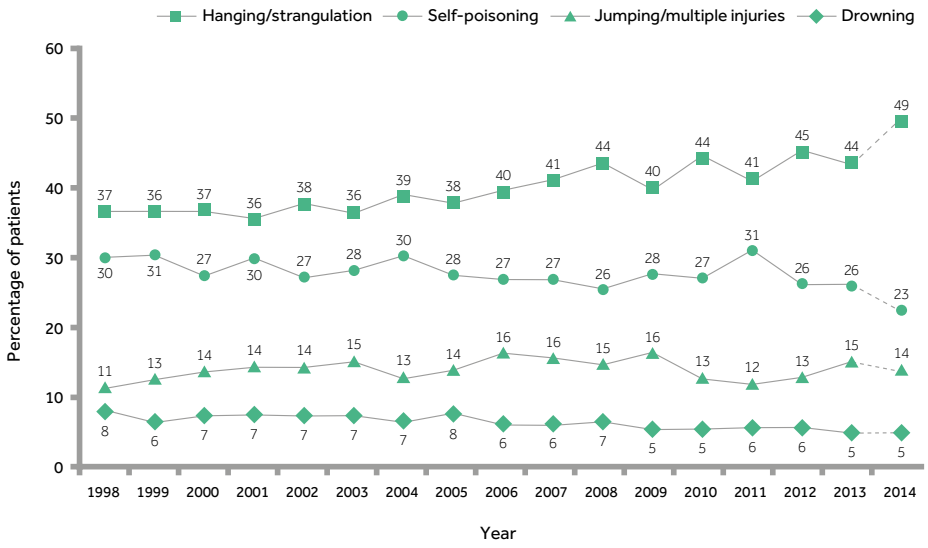
Longitudinal trends: Method of suicide

278. Between 1998-2013 there was an increase in the percentage of all patients who died by hanging in the UK (Figure 83) - this is most common suicide method. Death by hanging accounted for 583 (37%) patient suicide deaths in 1998 and increased to 769 (44%) in 2013.

279. There was an overall fall in the percentage of patients who died by self-poisoning, mainly seen in England. However, there was an increase in the percentage of suicides by self-poisoning in Scotland, increasing from 68 (33%) in 1998 to a peak of 138 (48%) in 2011, though recent figures are comparatively low.

280. The number and percentage of patients who died by overdose of opiates has increased from 64 (16%) in 1999 to 141 (32%) in 2013. There has been a significant fall in patients who died by overdose of tricyclic antidepressants, from 106 (26%) in 1999 to 28 (6%) in 2013.

Figure 83: UK patient suicide: suicide by method as a percentage of all suicides



Longitudinal trends: Clinical features

281. Table 13 shows the clinical characteristics of patients who died by suicide in 1998-2000 compared to those who died in 2011-2013. The number of suicides by people with a primary diagnosis of schizophrenia has decreased in 2011-2013 compared with 1998-2000. A history of alcohol and drug misuse was more frequent in 2011-2013 compared with 1998-2000.

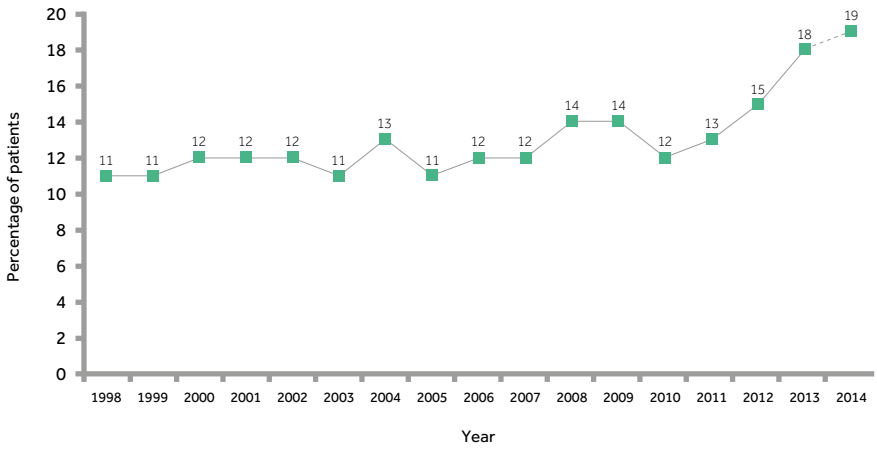
Table 13: Clinical features of patients in the UK who died by suicide in 1998-2000 compared to 2011-2013

	1998-2000 N=4,811	2011-2013 N=5,331
Primary diagnosis:	Number (%)	Number (%)
Schizophrenia & other delusional disorders	911 (19%)	863 (16%)*
Affective disorders (bipolar disorder & depression)	1,979 (42%)	2,114 (40%)
Alcohol dependence/misuse	518 (11%)	501 (10%)
Drug dependence/misuse	236 (5%)	358 (7%)*
Personality disorder	433 (9%)	472 (9%)
Behavioural features:		
History of self-harm	3,109 (66%)	3,515 (68%)
History of violence	938 (20%)	1,194 (23%)*
History of alcohol misuse	2,070 (44%)	2,532 (49%)*
History of drug misuse	1,459 (31%)	1,943 (38%)*

*p<0.01

282. The percentage of patients who had been seen in an emergency department for self-harm in the 3 months before death increased from 129 (11%) in 1999 to 278 (18%) in 2013 (Figure 84).

Figure 84: UK patient suicide: proportion of suicides in those seen at an emergency department for self-harm in the 3 months before suicides



Longitudinal trends: Our priority groups

283. Table 14 presents the number of suicides in the groups that we have particularly studied ("priority groups"). There has been a fall in suicide numbers in all the priority groups when comparing 1998-2000 with 2011-2013 - though the fall in "missed contact" was less convincing. Patient suicides by people who were not in any priority group increased from 1,490 (33%) in 1998-2000 to 2,439 (49%) in 2011-2013.

Table 14: Patient suicides in Inquiry priority groups in the UK in 1998-2000 compared to 2011-2013

	1998-2000 N=4,811	2011-2013 N=5,331
Priority groups:	Number (%)	Number (%)
In-patients	713 (15%)	341 (6%)*
Recent (<3 months) discharge	1,052 (26%)	794 (16%)*
Missed last contact in previous month	1,147 (29%)	1,246 (25%)*
Non-adherence with medication in previous month	884 (21%)	558 (12%)*

*p<0.01

WHICH FEATURES OF MENTAL HEALTH CARE IMPROVE SAFETY?

284. We have examined aspects of mental health care to determine if there is an association with patient suicide rates.[19] We found lower suicide rates were linked with a number of features:
— removal of ligature points from wards;
— specialised community teams such as outreach and crisis resolution/ home treatment (CRHT);
— "dual diagnosis" services;
— multidisciplinary review of patient suicides with family input, a sign of a learning culture;
— implementation of NICE guidance for depression and self-harm;
— low turnover of non-medical staff.

285. The transition from in-patient care to the community is a time of high-risk, particularly the first two weeks after hospital discharge. We have found these deaths to be linked to admissions lasting less than 7 days, lack of a care plan on discharge and adverse life events - suggesting that some patients return to the stresses that made admission necessary.[20]

286. Almost three times as many patient suicides occur under CRHT as in in-patient care. Although the introduction of 24 hour CRHT appears to add to the safety of a service overall, [21] we have found evidence that it has become the "default option" in acute care, used for too many patients at high risk. 44% of patients who die by suicide under CRHT live alone - home treatment may not be suitable for people who lack other social supports. 40% die within 2 weeks of leaving hospital and a third within a week of starting CRHT. [22]

287. We have examined risk assessment at the time of final contact before death. Despite common risk factors, what puts a patient at risk is often individual, suggesting that risk management should be personalised. [23]

288. Based on our evidence, we have drawn up a list of key elements of safer care in mental health services and in the wider health system (Box 2).

Box 2: Key elements of safer care in mental health services

Key elements of safer care in mental health services:

1. Safer wards
— Removal of ligature points
— Reduced absconding
— Skilled in-patient observation
2. Care planning and early follow-up on discharge from hospital to community
3. No 'out of area' admissions for acutely ill patients
4. 24 hour crisis resolution/home treatment teams
5. Community outreach teams to support patients who may lose contact with conventional services
6. Specialised services for alcohol and drug misuse and "dual diagnosis"
7. Multidisciplinary review of patient suicides, with input from family
8. Implementing NICE guidance on depression and self-harm
9. Personalised risk management, without routine checklists
10. Low turnover of non-medical staff

Key elements of safer care in the wider health system:

1. Psychosocial assessment of self-harm patients
2. Safer prescribing of opiates and antidepressants
3. Diagnosis and treatment of mental health problems especially depression in primary care
4. Additional measures for men with mental ill-health, including services online and in non-clinical settings

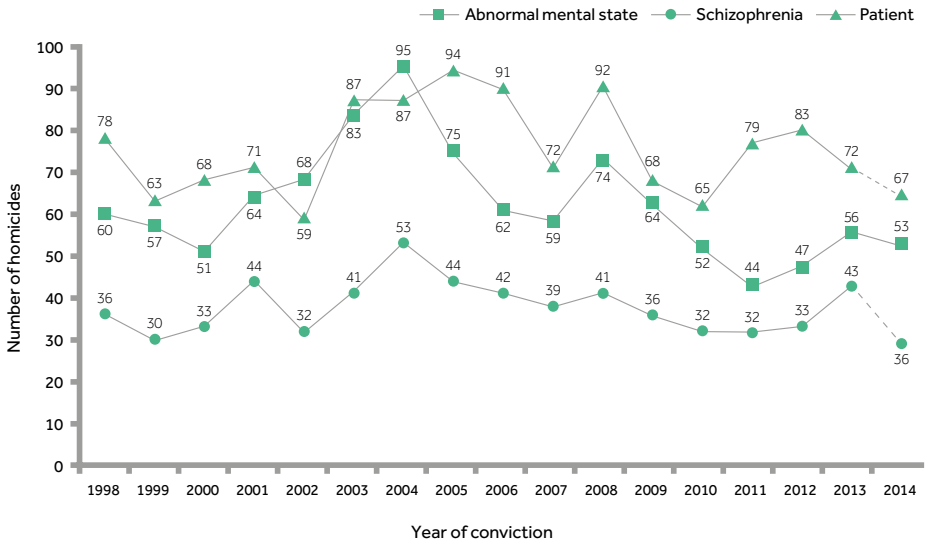
PATIENT HOMICIDE

289. There has been a large fall in general population homicide since a peak in 2008. A fall in patient homicide has also occurred during the same period. Our evidence suggests that the changing pattern in patients may be linked to drug misuse.[24] However, the decrease since 2008 has been less marked in patients compared to the general population (27% vs. 37%).

290. Estimates of mental disorder vary according to the definition used (Figure 85). However, figures based on being a patient or abnormal mental state at the time of offence both show a fall since a peak in 2008.

291. There were 965 (75%) patients and 233 (36%) people with schizophrenia who received a prison sentence over the whole period. Since 1998, there has been a fall in the number of people with schizophrenia imprisoned, and a fall in patients since 2005.

Figure 85: Number of homicides in the UK by definition of mental disorder (1998-2014)



Patients as victims of homicide

292. In a recent study, we assessed how often mental health patients were victims of homicide.[25] Compared to the general population, patients were 2.6 times more likely to be a victim of homicide. Of the 1,496 homicide victims recorded between 2003-2005 in England and Wales, 90 (6%) had been patients. However, the risk of being a perpetrator was higher, with 213 patients convicted of homicide during the same period, 12% of all offenders.

293. In 29 of the 90 cases, the offender was also a patient, and in most of these cases victim and perpetrator were known to each other and were being treated at the same NHS Trust. These homicides were characterised by a history of violence and substance misuse in both the victim and perpetrator.

294. Improving patient safety includes reducing the risk of being a victim of violence. Services can help by being aware of this risk and of the role of alcohol or drug misuse and other possible factors such as public prejudice and living in a violent sub-culture.

Stranger homicides

295. In the UK, there were 2,383 convictions for homicide where the victim and the perpetrator were not known to each other (stranger homicides), 24% of all homicides, an average of 140 per year (1998-2014) (Table 15). 177 were mental health patients, an average of 10 per year – this is 7%, a smaller figure than for all homicides. People who kill strangers are more often young men who are intoxicated, rather than people with mental illness. A higher number was linked to alcohol than mental illness, suggesting alcohol should be a greater priority for preventing stranger homicides.[26]

296. The number of stranger homicides by patients has fallen over the 17 year study period. There has been no increase during the period when community care has been national policy.[26]

Table 15: Stranger homicide by UK country (1998-2014)

	England N=7,885	Northern Ireland N=260	Scotland N=1,379	Wales N=387	UK N=9,911
Stranger homicide: general population	1,948	77	290	68	2,383
*Stranger homicides as a % of all homicides	25%	30%	21%	18%	24%
Number of stranger homicides by mental health patients	132	3	36	6	177
*Stranger homicides by patients as a % of all stranger homicides	7%	4%	12%	9%	7%
*Stranger homicides by patients with a history of alcohol or drug misuse	117	3	33	5	158

*The denominator includes only cases where the relationship between the victim and offender was known.

RECENT PUBLICATIONS FROM THE INQUIRY

A full list of Inquiry reports and publications can be found on the Inquiry website: **www.bbmh.manchester.ac.uk/cmhs/research/centreforsuicideprevention/nci - Publications**

Cavanagh B, Ibrahim S, Roscoe A, Bickley H, While D, Windfuhr K, Appleby L, Kapur N (2016) The timing of general population and patient suicide in England, 1997-2012. *Journal of Affective Disorders*, DOI:10.1016/j.jad.2016.02.055.

Kapur N, Ibrahim S, Hunt IM, Turnbull P, Shaw J, Appleby L (2016) Mental health services, suicide and 7-day working. *British Journal of Psychiatry*, 1-6, DOI: 10.1192/bjp.bp.116.184788.

Kapur N, Ibrahim S, While D, Baird A, Rodway C, Hunt IM, Windfuhr K, Moreton A, Shaw J, Appleby L (2016) Mental health service changes, organizational factors, and patient suicide in England in 1997-2012. Lancet Psychiatry, DOI: 10.1016/S2215-0366(16)00063-8.

Rodway C, Tham S-G, Ibrahim S, Turnbull P, Windfuhr K, Shaw J, Kapur N, Appleby L (2016) Suicide in children and young people in England: a consecutive case series. *Lancet Psychiatry*, DOI: 10.1016/S2215-0366(16)30094-3

Flynn S, Gask L, Appleby L, Shaw J (2016) Homicide-suicide and the role of mental disorder: a national consecutive case series. *Social Psychiatry and Psychiatric Epidemiology*, 51(6), 877-884 DOI: 10.1007/s00127-016-1209-4.

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