Agenda item 8i

Northumberland, Tyne and Wear NHS Foundation Trust
Board of Directors Meeting

Meeting Date: 29th November 2017

Title and Author of Paper:
Learning from Deaths: Mortality Review of data 2010 – 2017
Dr Damian Robinson, Group Medical Director, Safer Care, and Anthony Gray, Head of Safety and Patient Experience

Executive Lead: Gary O'Hare, Executive Director of Nursing and Chief Operating Officer

Paper for Debate, Decision or Information: Information

Key Points to Note:

- This is an analysis of deaths recorded in the NTW SafeGuard system for the seven calendars years 2010 to 2016.
- In 2016 there are 97 currently confirmed unnatural deaths but a number of pending conclusions remain (19) which may yet prove to be of natural cause. The eventual figure is likely to be similar to 2015.
- There were 20 coroner confirmed deaths in 2016 with a conclusion of suicide, *killed self*, or open. This is notably lower than in 2015 though a number of conclusions are outstanding.
- The number of deaths occurring across all community services in 2016 is comparable to 2015 but it is too early to comment on the number attributed to *death by own hand*. The majority of deaths occurred in Community Mental Health Teams (CMHT) for working age adults, addiction services and Crisis Resolution & Home Treatment (CRHT) services.
- Following a year on year increase in unnatural deaths in adult and older peoples CMHTs there has been a levelling off in 2015 and 2016. However, there has been a welcome decrease in deaths *by own hand*.
- The number of unnatural deaths in addiction services continues to increase but the number of deaths *by own hand* remains small.
- The number of potential unnatural deaths in CRHTs in 2016 appears to be comparable with previous years and less than in 2015.
- The number of deaths occurring within three months of discharge from hospital has continued to fall since a peak seen in 2013.
- The number of deaths of service users while an in-patient is small and has continued to fall.
- There is considerable variation year on year in the number of deaths of service users detained under the Mental Health Act. In 2016 there were two such deaths
- There were 3620 natural cause deaths reported in SafeGuard between 2010-2016, with a year on year increase. There were 864 such reports in 2016. The largest increase has been where the person was aged over 65, but also between 45 and 65.
- More men than women dies of natural causes in people aged under 75, while women predominated in elderly age groups.

Risks Highlighted to Board :
Potential reputational and regulatory risk from failure to identify, report, investigate and learn from natural and unnatural deaths. Mitigating actions in place to reduce risk.

Does this affect any Board Assurance Framework/Corporate Risks?
Please state Yes or No; No
If Yes please outline

Equal Opportunities, Legal and Other Implications:
Potential for discrimination against people with learning disabilities

Outcome Required:
Note content of report

Link to Policies and Strategies:
NTW (O) 05 Incident Policy

NHS
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Learning from Deaths:
Mortality Review of Data 2010 - 2017

(Analysis of Data Extracted from Safeguard on 10th November 2017)

Dr Damian Robinson, Group Medical Director - Safer Care
Antony Gray, Head of Safety and Patient Experience
November 2017.

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Chapter 1

SUMMARY AND MAIN FINDINGS

- This is an analysis of deaths recorded in the NTW SafeGuard system for the seven calendars years 2010 to 2016.

- Deaths included in the analysis cover the SafeGuard "Cause 1" codes DE01 – Unexpected Deaths; DE02 – Expected Death; DE08 - Unexpected Death Natural Cause; DE18 – Unexpected Death Local AAR

- The data extract was undertaken on 10th November 2017.

- NTW is a member of the Northern Alliance of Trusts which is working with Mazars to improve and standardise the reporting and investigation of deaths, and facilitate cross organisational learning.

- In 2016 there are 97 currently confirmed unnatural deaths but a number of pending conclusions remain (19) which may yet prove to be of natural cause. The eventual figure is likely to be similar to 2015.

- At the point of data extraction there were 20 coroner confirmed deaths in 2016 with a conclusion of suicide, *killed self*, or open. This is notably lower than in 2015 though a number of conclusions are outstanding. There has been a shift towards suicide conclusions becoming more common but this is likely to be a recording issue as the total number of *deaths by own hand* is not increasing.

- The number of deaths occurring across all community services in 2016 is comparable to 2015 but it is too early to comment on the number attributed to *death by own hand*. The majority of deaths occurred in Community Mental Health Teams (CMHT) for working age adults, addiction services and Crisis Resolution & Home Treatment (CRHT) services.

- Following a year on year increase in unnatural deaths in adult and older peoples CMHTs there has been a levelling off in 2015 and 2016. However, there has been a welcome decrease in deaths *by own hand*.

- The number of unnatural deaths in addiction services continues to increase but the number of deaths *by own hand* remains small.

- The number of potential unnatural deaths in CRHTs in 2016 appears to be comparable with previous years and less than in 2015.

- The number of deaths occurring within three months of discharge from hospital has continued to fall since a peak seen in 2013.

- The number of deaths of service users while an in-patient is small and has continued to fall.

- There is considerable variation year on year in the number of deaths of service users detained under the Mental Health Act. In 2016 there were two such deaths

- There were 3620 natural cause deaths reported in SafeGuard between 2010-2016, with a year on year increase. There were 864 such reports in 2016. The largest increase has been where the person was aged over 65, but also between 45 and 65.

- More men than women dies of natural causes in people aged under 75, while women predominated in elderly age groups.

- Historically, underlying cause of death has not been recorded in SafeGuard when the cause of death is natural. This limits the analysis that can be undertaken.

- A revised mortality review process has been introduced to improve learning from natural cause deaths.

Chapter 2

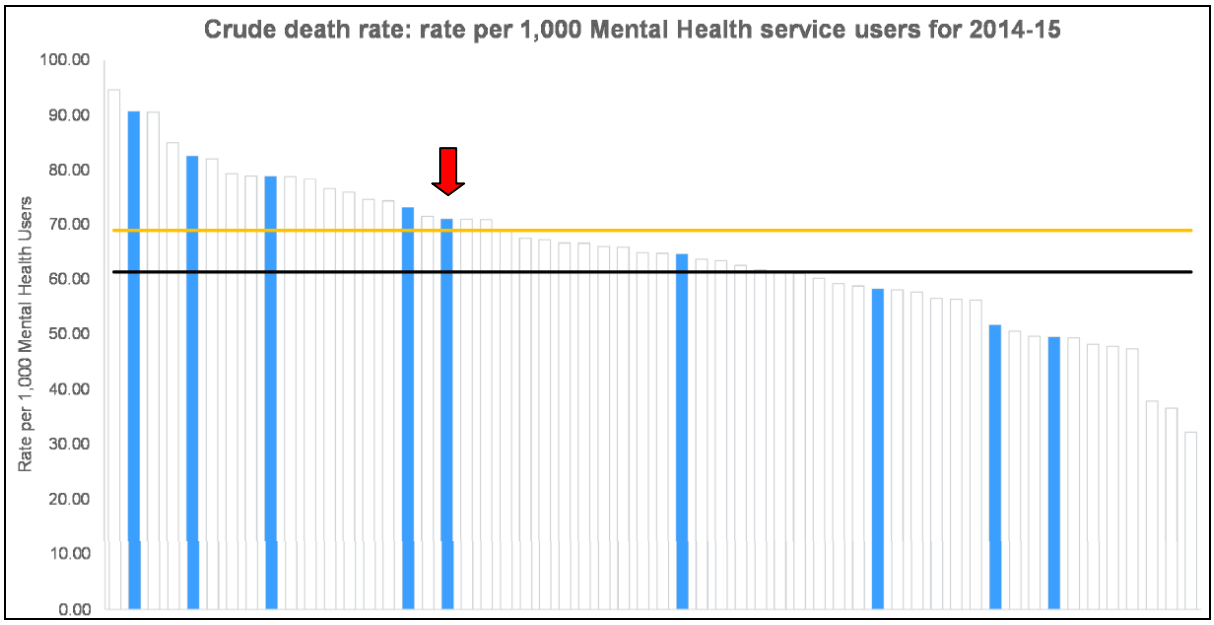
REVIEW OF DEATH RATES ACROSS NORTHERN MENTAL HEALTH TRUSTS

Throughout 2016 and 2017 the Trust has continued its collaboration with nine other mental health trusts in the North of England and Mazars to share developments and leaning. Mazars has undertaken a comparative analysis of death rates derived from data in the 2014/15 ONS Mental Health Minimum Data Set (MHMDS) which was presented and discussed at a regional meeting.

In the following graphs the nine mental health Trusts in the Northern Alliance are represented by the blue bars. Identifiers have been removed but NTW is highlighted by the red arrow. The black horizontal line represent the England average for all mental health Trusts; the yellow horizontal line represents the average for the nine Northern Alliance Trusts.

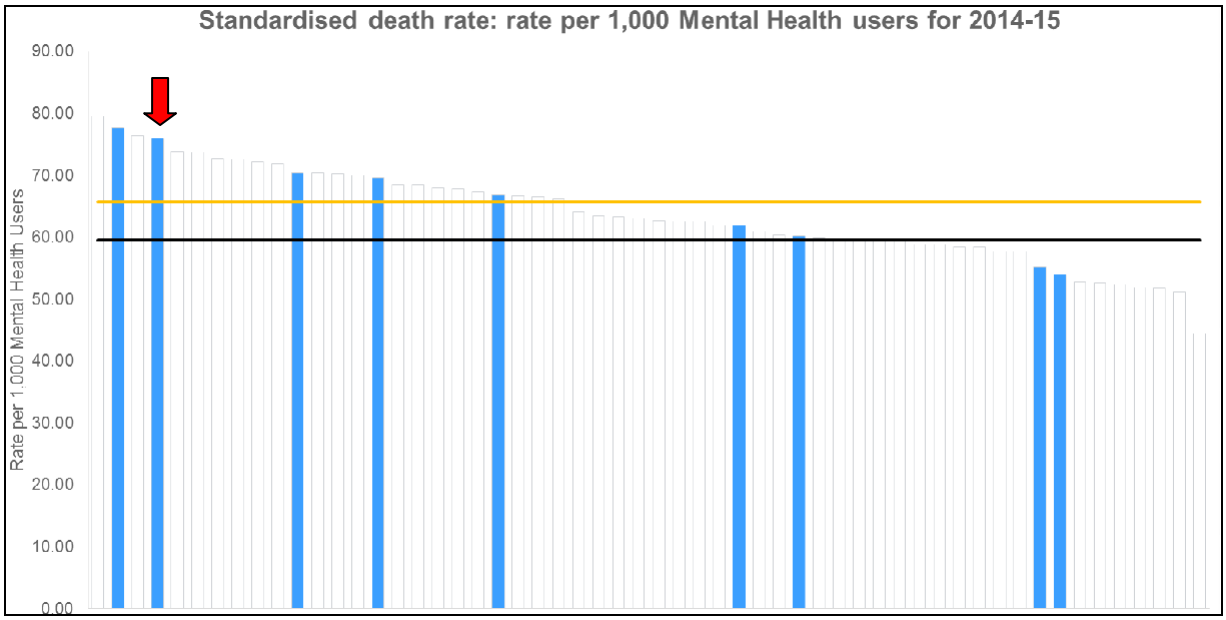
2.1 Overall death rates

The cruse death rate is a measure of the number of deaths from all causes. NTW has a crude death rate which is average for the nine alliance Trusts but sits slightly above the England average (graph 2.1.1).



Graph 2.1.1 Courtesy of Mazars

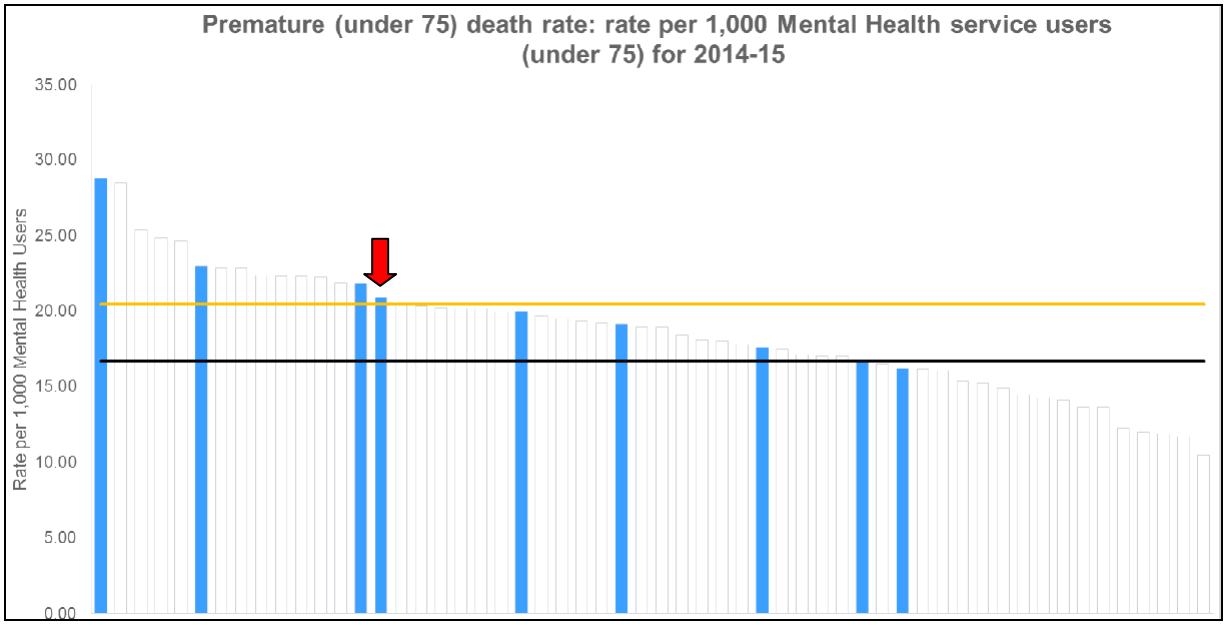
Because there will be differences in the age structure of the populations of each Trust, and age is highly associated with the likelihood of death, the crude data was age standardised to enable more accurate comparisons. Once this is undertaken NTW changes position and becomes higher than the alliance average (graph 2.1.2). As this still represents an all-cause mortality, it is not possible to determine the underlying reason from this data. However, Mazars undertook a more detailed analysis looking at various causes of death.



Graph 2.2 Courtesy of Mazars

2.2 Premature mortality

Premature mortality represents deaths amongst persons under 75. NTW again lies on the Alliance average with a rate of 21/1,000 mental health users. All but one of the Alliance Trusts are above the England average.

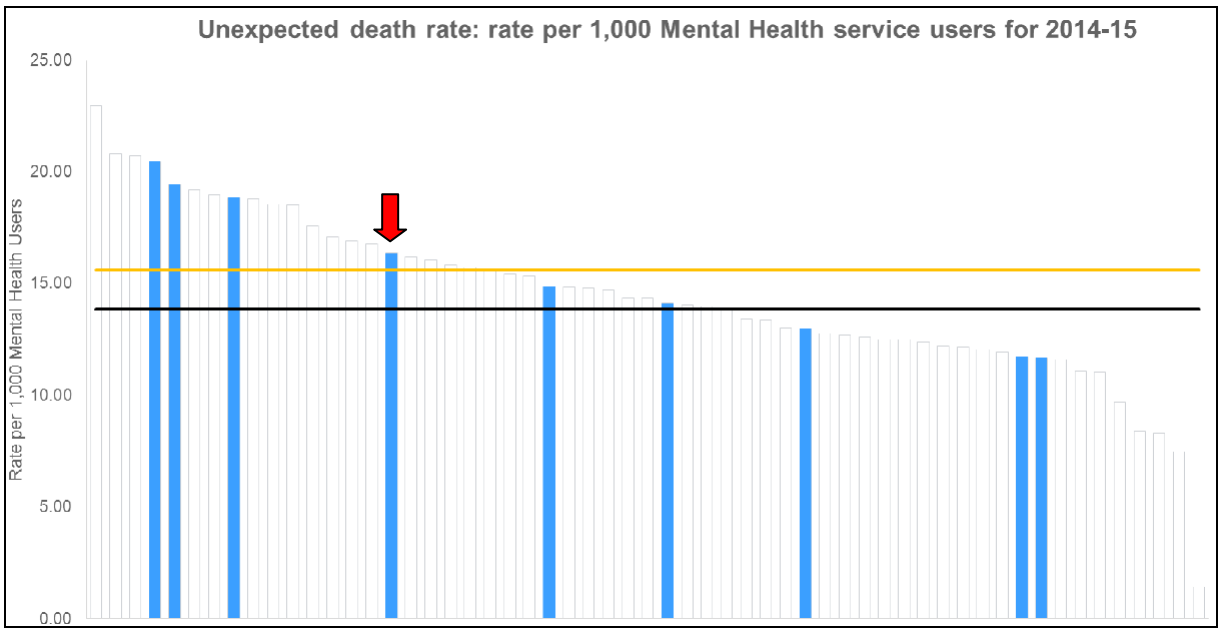


Graph 2.2.1 Courtesy of Mazars

2.3 Unexpected mortality

NTW again lies on the Alliance average for unexpected deaths. Note that here the definition of unexpected death is different from that used elsewhere in this report and is based on a subset of causes of death from ICD10. This reflects not only deaths

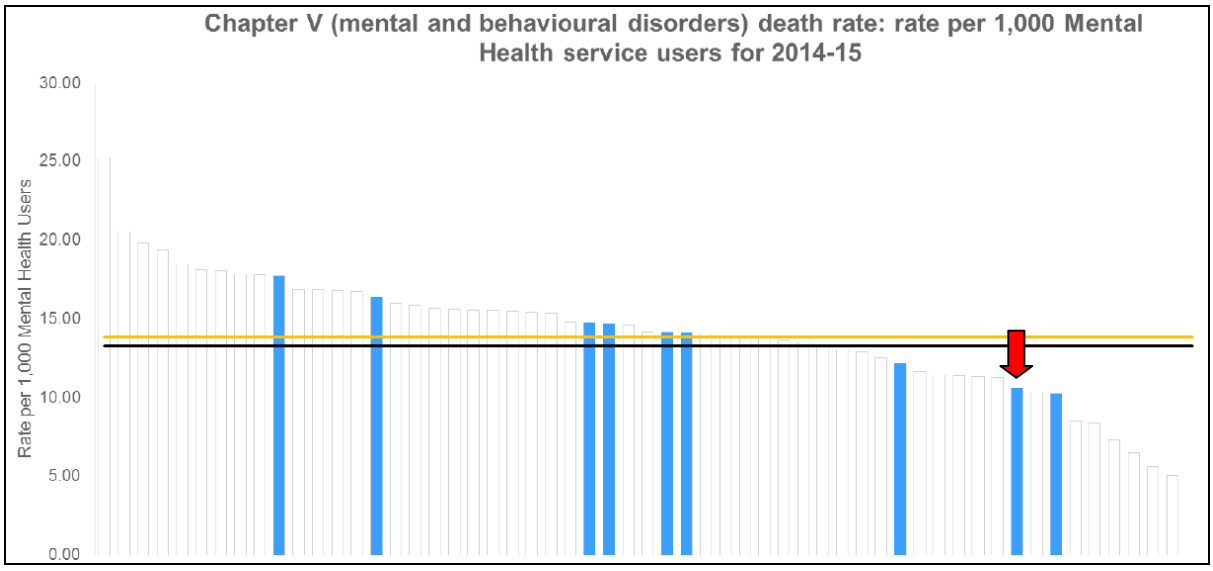
from external causes but also a number of natural cause deaths such as myocardial information, stroke and respiratory illnesses.



Graph 2.3.1 Courtesy of Mazars

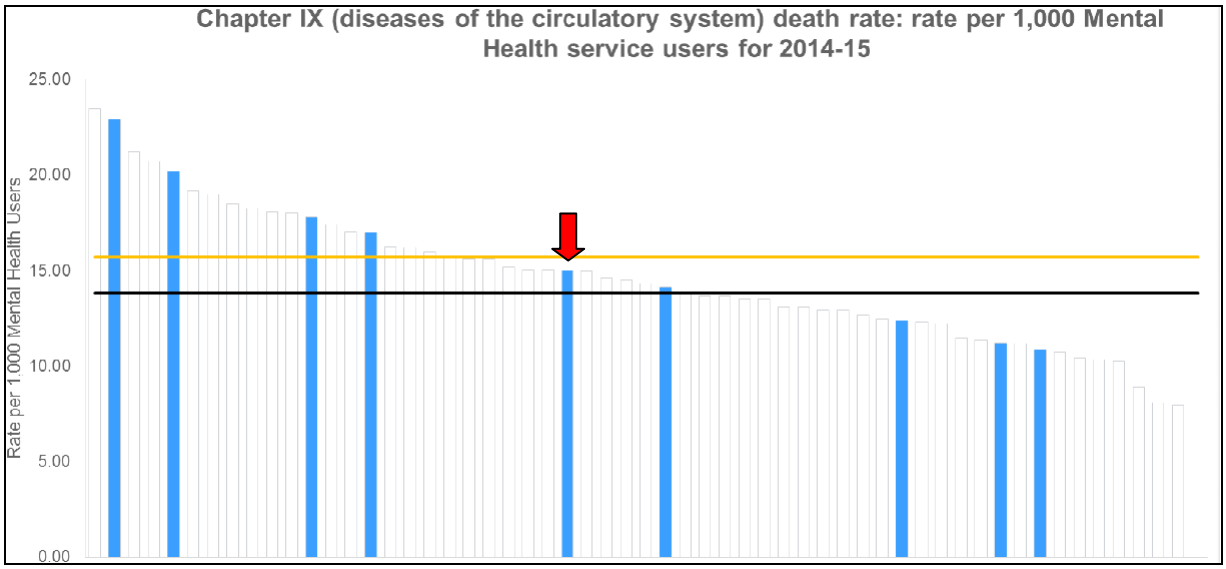
2.4 Deaths from specific causes

Where the underlying cause of death was a mental health or behavioural disorder NTW reported a death rate below both the national and Alliance average (graph 2.4.1)



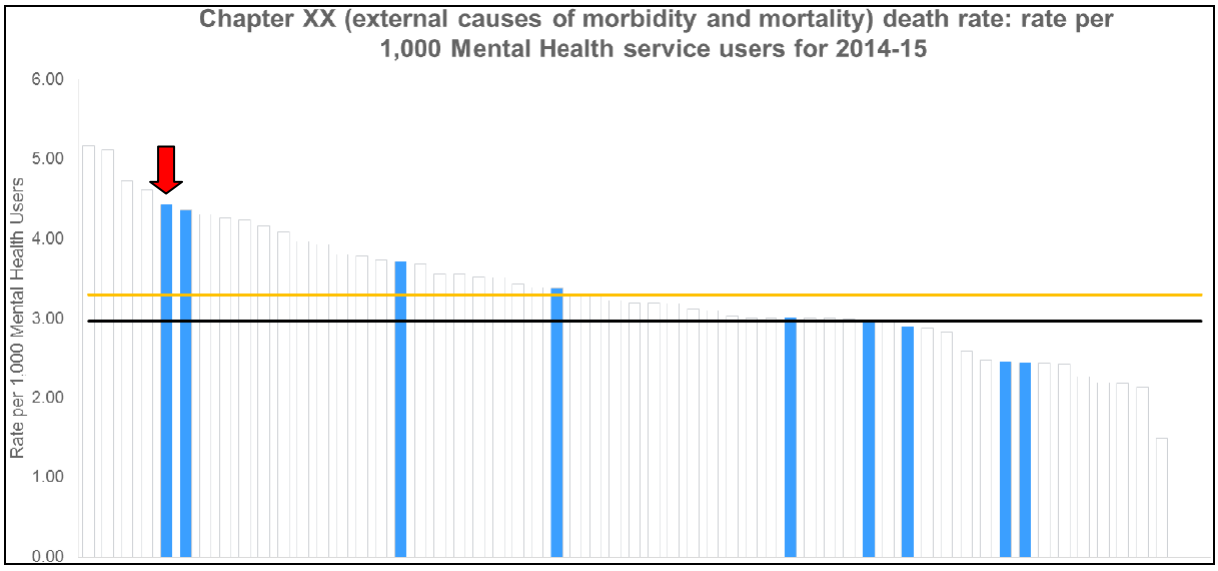
Graph 2.4.1 Courtesy of Mazars

The death rate from circulatory system disorders such as myocardial infarction was slightly above the national average and below the Alliance average (graph 2.4.2).



Graph 2.4.2 Courtesy of Mazars

However, where external causes of death were recorded the death rate in NTW was notably higher than the national and Alliance average (graph 2.4.3). Tis may explain the higher than average overall standardised mortality rate but requires further interpretation.



Graph 2.4.3 Courtesy of Mazars

This analysis is based on a single year's data, and is to be repeated with data from 2015/16

Chapter 3

REVIEW OF UNNATURAL DEATHS

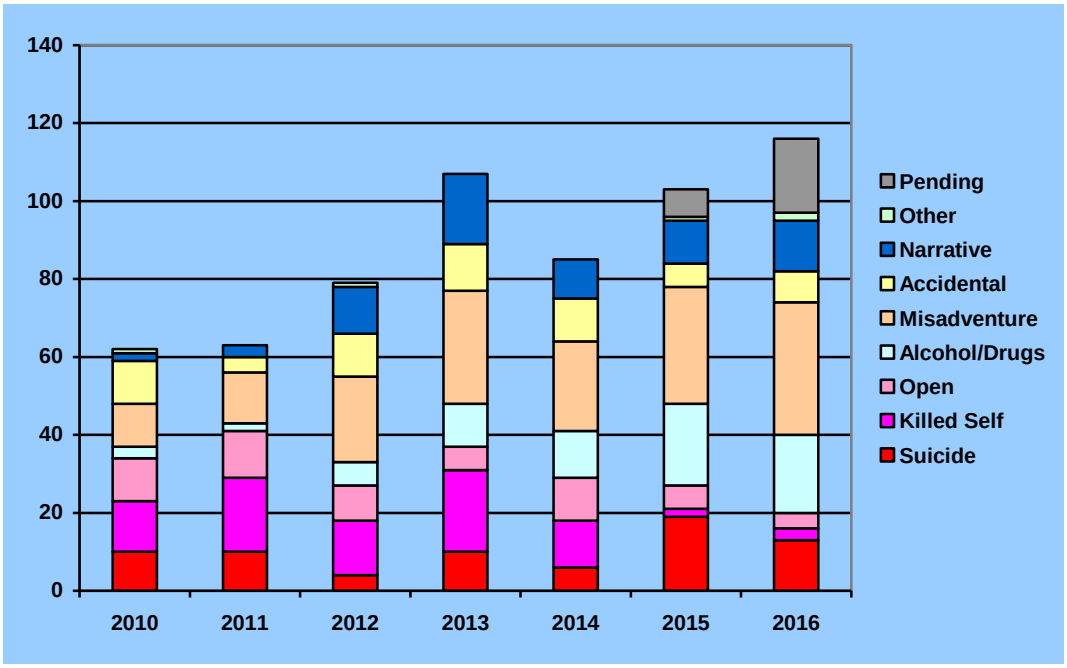
3.1 Unnatural deaths in all services

Over the seven year period there were 615 potentially unnatural deaths reported. At the time of data extraction (10th November 2017) conclusions were pending in 26 cases, so unnatural death had been confirmed in 589 cases.

There were no pending conclusions for deaths occurring in 2010 to 2014. Seven conclusions were pending for 2015, and 19 conclusions pending for deaths occurring in 2016. It is likely that some deaths will be classified as being of natural causes at inquest so caution is required in interpreting data for time periods for which conclusions are still outstanding.

The number of potential unnatural deaths increased year on year between 2010 and 2013, but has decreased subsequently (see graph 3.1). In 2010 there were 62 coroner confirmed unnatural deaths, 63 in 2011, 79 in 2012 and107 in 2013. This fell to 85 confirmed unnatural deaths in 2014 but rose to 96 in 2015.

In 2016 there are currently 97 confirmed unnatural deaths but a significant number of pending conclusions remain (19) which may yet prove to be of natural cause.



Graph 3.1: Unnatural deaths by coroner conclusion across all NTW services.

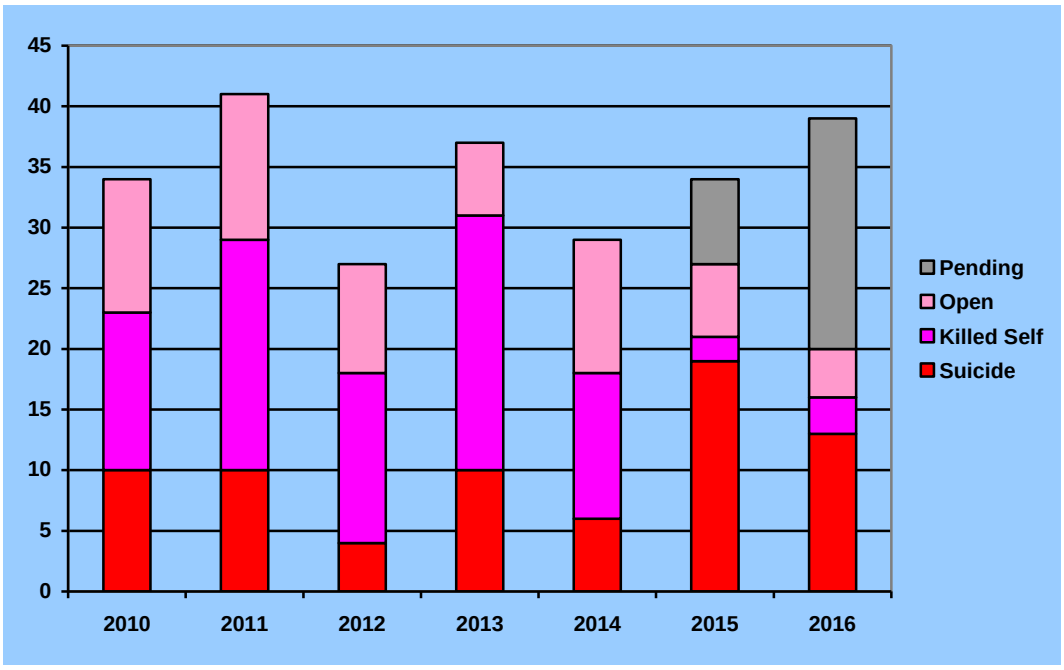
3.2 Deaths by own hand in all services

Deaths classified as those *by own hand* include those where the coroner conclusion is either suicide, open, or indicative of being the consequence of self-applied cause but without evidence of intent to die (termed *killed self*). The latter is derived from the nature of short form conclusions.

At the time of analysis there had been 215 coroner confirmed cases of death by own hand. This included 72 suicides (33%), 84 *killed self* (40%) and 59 open (27%). In addition, there are 26 deaths with conclusions still pending, 19 of which relate to deaths in 2016.

In 2015 there was a step change of coroner conclusion with a notable increase in suicide conclusions but a fall in other *killed self* and open conclusions. However, the total number of persons who died *by own hand* continued to fall compared with previous years. This probably reflects recent guidance to coroners (Chief Coroner Guidance No17) urging them to stick to standard short form conclusions (such as open or suicide), rather than a change in the nature of the self-harm act itself.

Although there are a number of outstanding conclusions, this trend appears to have continued into 2016 with a fall in both the number of suicides reported from 19 in 2015 to 13 in 2016 and the total number of death *by own hand* from 27 to 20. These figures may change however once pending conclusions are delivered.



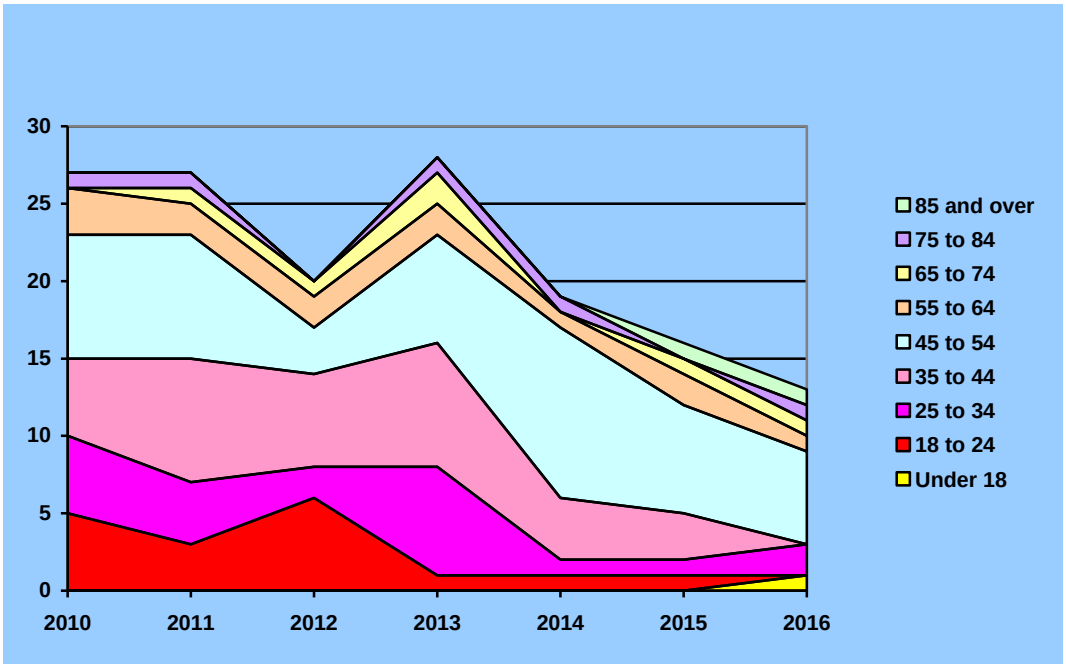
Graph 3.2: Deaths by own hand across all NTW services.

The National Confidential Inquiry into Suicide and Homicide by People with Mental illness (NCISH) published its annual report in October 2017. This report provides detailed analysis of data for the calendar years 2004 to 2015, this being one year behind data reported by NTW. Also, the NCISH report covers only deaths where the coroner conclusion was suicide or open. Therefore, data in the NCISH report is not directly comparable to that held internally by NTW.

Over the 10 year period the NCISH found that 27% of all population suicides had been on contact with mental health services in the 12 months prior to death. Nationally within England, deaths by suicide in male service users increased until a peak in 2012 but has declined in subsequent years. In NTW the peak for all types of self-harm peaked in 2011 with a second peak in 2013. It has fallen each year since then.

Within NTW the number of deaths by suicide (including open conclusions) in males is small, with a range of 10 to 17 each year. Graph 3.3 shows the age pattern for all deaths in men where the cause was suicide/open or interpreted as *killed self*, i.e. not comparable directly with NCISH data. Note that data for 2016 does not include deaths where to coroner verdict is yet outstanding, so is a provisional figure.

The peak number in NTW occurred in 2013 but has followed the national trend of declining in the last three years. There were 150 such deaths, of which 50 (33%) where in men aged 45-64 years, and 13 aged over 65 years (9%). Over time, the number of such deaths in younger men aged under 45 has fallen, while the number in men aged over 65 has not shown a trend. Deaths in the age group 45-54 peaked in 2014 at 11, but lay between 3 and 8 in previous years.

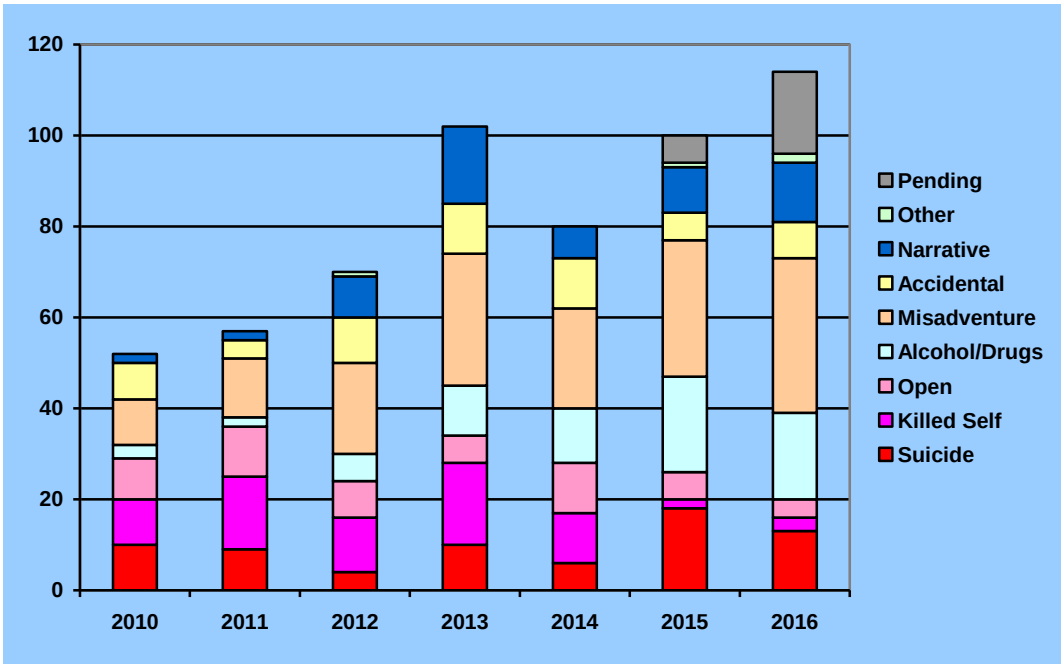


Graph 3.3: Death by own hand by age for male service users.

3.3. Unnatural deaths across all community based services

Over the seven year period there were 574 potential unnatural deaths across all community based services, including specialist community services (see graph 3.4). Conclusions are pending in 24 cases (6 from 2015, 18 from 2016). Therefore, 550 cases currently have coroner confirmed unnatural cause conclusions.

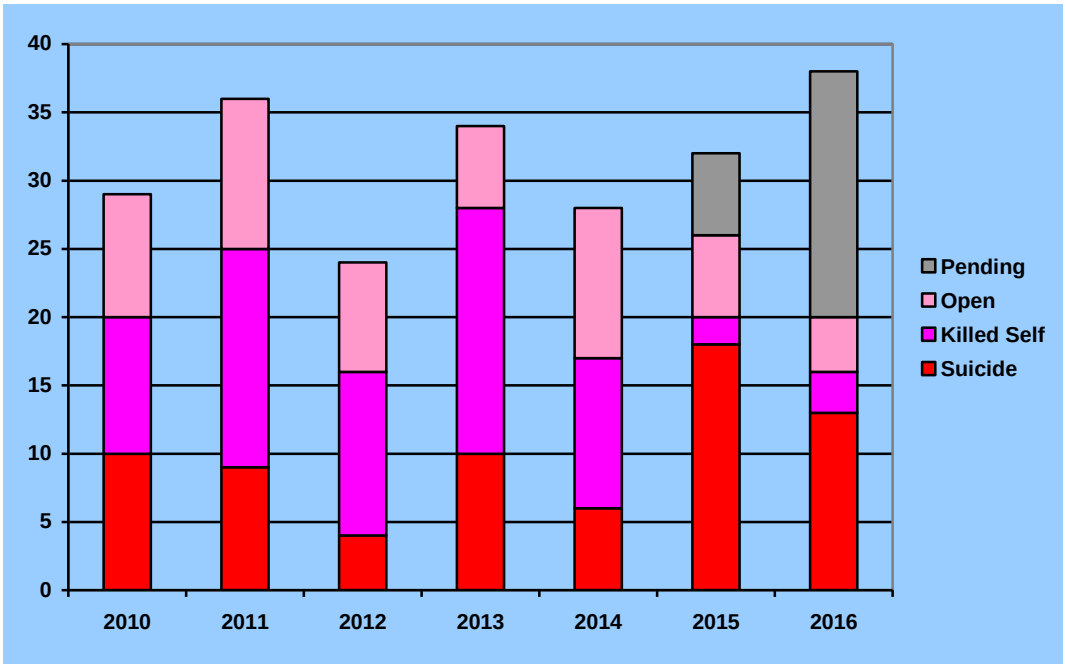
A third of coroner confirmed conclusions (215 cases, 40%) were misadventure or accidental deaths. Death by own hand accounted for 197 cases (36%); this included 70 suicides, 72 killed self, and 55 open conclusions (see note above regarding increase in use of suicide as a conclusion)



Graph 3.4: Unnatural deaths by coroner conclusion across all community based services.

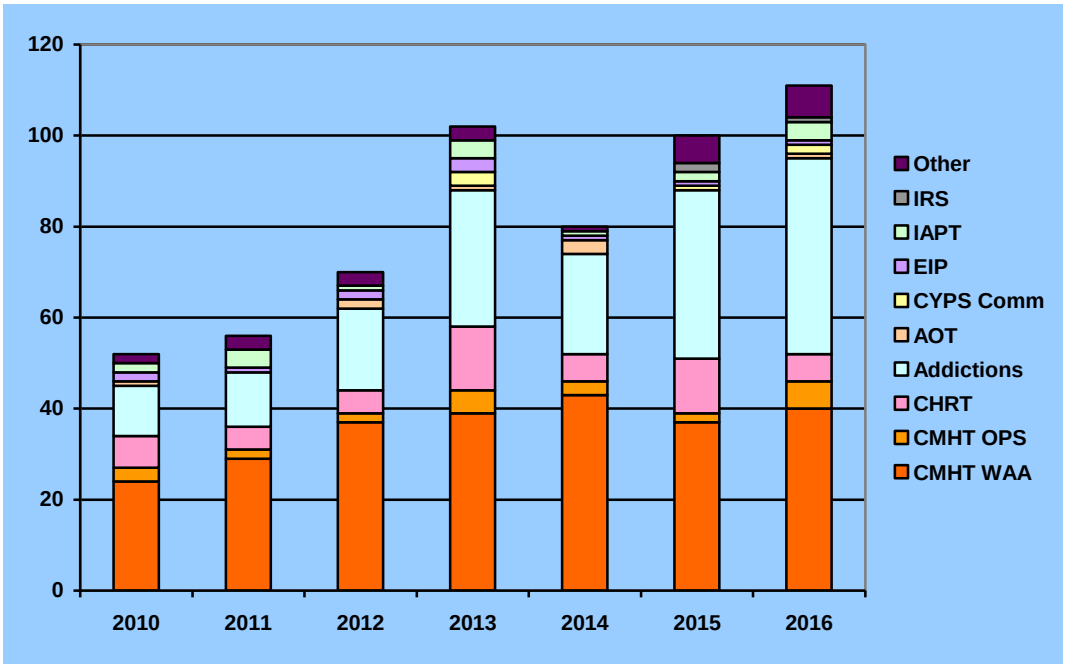
The number of unnatural deaths increased each year from 2010 to 2013 before falling in 2014. They rose again in 2015 to a similar level seen in 2013. In 2016 the final number is likely to be comparable with that seen in 2015.

The number of *deaths by own hand* is harder to interpret (see graph 3.5). The number of pending conclusions in 2016 makes interpretation for this year unreliable but the total is likely to be comparable with 2015. The increase in use of suicide as a conclusion is apparent, as previously discussed.



Graph 3.5: Deaths by own hand across all community based service.

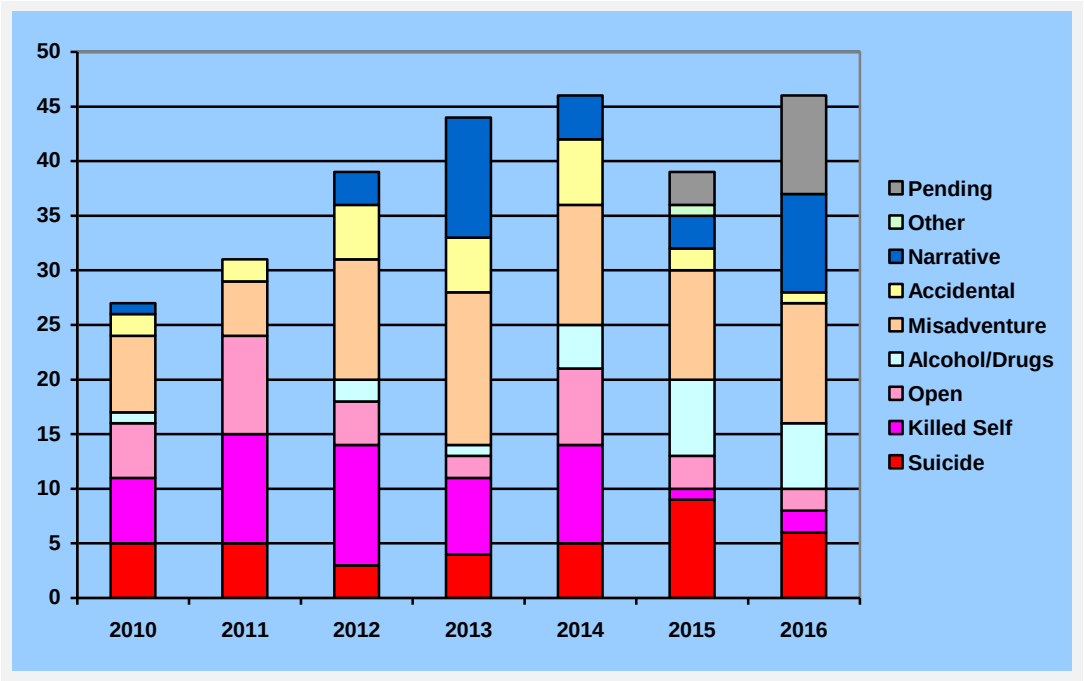
Graph 3.6 shows that the majority of the 574 total community deaths occurred amongst service users in community mental health teams for working age adults (N=272, or 47%), addiction services (N=173, or 30%) and crisis resolution and home treatment services (N=55, or 10%). Note that these figures currently include pending conclusions.



Graph 3.6: Unnatural deaths across all community based services, by service type.

- **3.3.1 Community Mental Health Teams (CMHTs)**

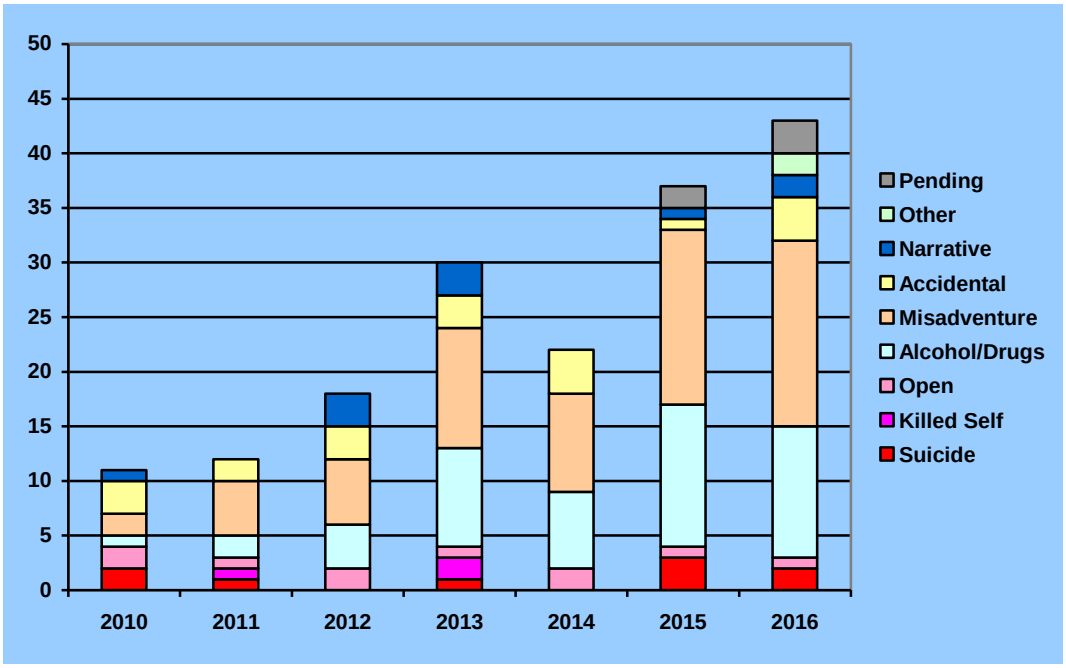
Over the period there were 272 deaths in Working Age Adult and Older Peoples CMHTs. There was a fall in 2015 following several years of increasing numbers and the number of deaths in 2016 appears comparable. There were 46 potential unnatural deaths with 6 conclusions still pending (Graph 3.7). The number of deaths currently attributed to *own hand* (10) is also less than in 2015 (13). Although some pending conclusions may add to the figure, the number of persons who died by *own hand* is the lowest recorded during this seven year period.



Graph 3.7: Unnatural deaths by conclusion in Community Mental Health Teams.

- **3.3.2 Addiction Services**

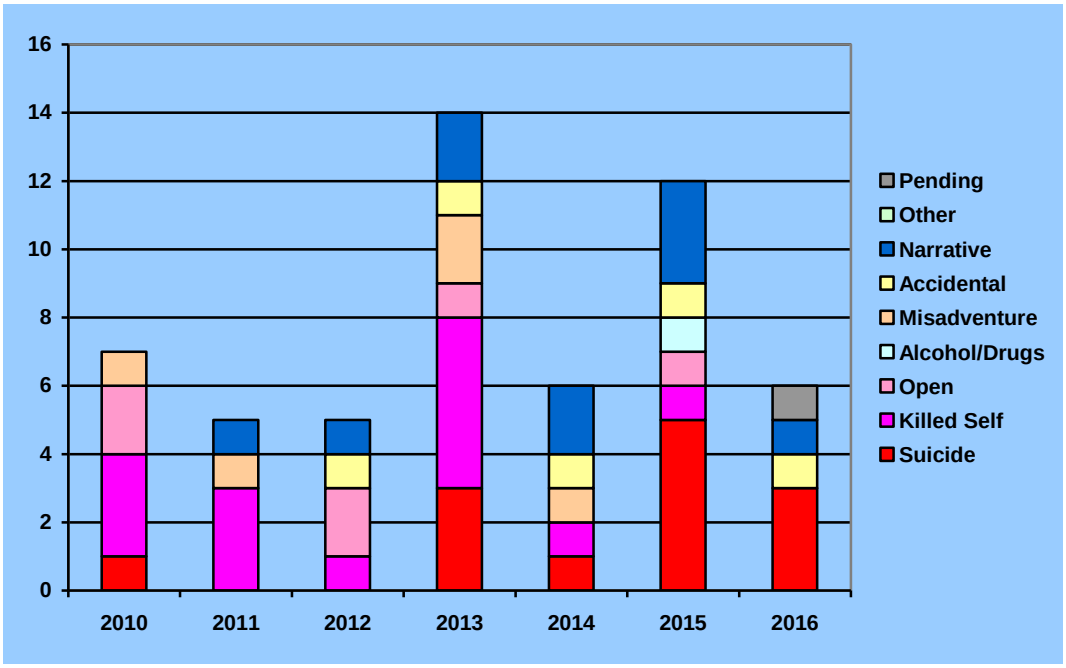
Over the seven year period there were 173 reported unnatural cause deaths in addictions services. Apart from in 2014 there has been a year on year increase, but the Trust has taken on more services during this time. However, the number attributed to death by own hand is in single figures each year. Accident, misadventure and short conclusion indication alcohol and drug use are the predominant conclusions accounting for nearly 80% of outcomes.



Graph 3.8: Unnatural deaths in community addiction services.

- **3.3.3 Crisis and Home Resolution Teams (CRHTs)**

The number of potential unnatural deaths in CRHTs rose in 2013 to a peak of 14 deaths but fell significantly to 6 deaths in 2014 (see graph 3.9). There was an increase in 2015 to 12 deaths but there has been a further significant fall in 2016 to 6 deaths (with one conclusion pending). The number of deaths by *own hand* is currently three which is within the range seen in most years except 2013.



Graph 3.9: Unnatural deaths by conclusion in Crisis Resolution & Home Treatment teams.

The NCISH have expressed some concern about the number of suicides occurring nationally in CHRTs, noting that the number of deaths in these teams has increased year on year while the number of in-patient deaths has fallen. Data recorded since 2012 show that 38% of patients who died had been under CHRT care for under a week. One third of deaths occurred in service users who had been discharged from in-patient care within the previous three months. This led the report authors to express concern that *"… CRHTs may not have been a suitable setting for their care and that CHRT has become the default option for acute mental health care because of pressure on other services particularly beds*"".

The data set held in SafeGuard does not currently hold information to enable a comparison of NTW with the national experience.

- **3.3.4 Other Services**

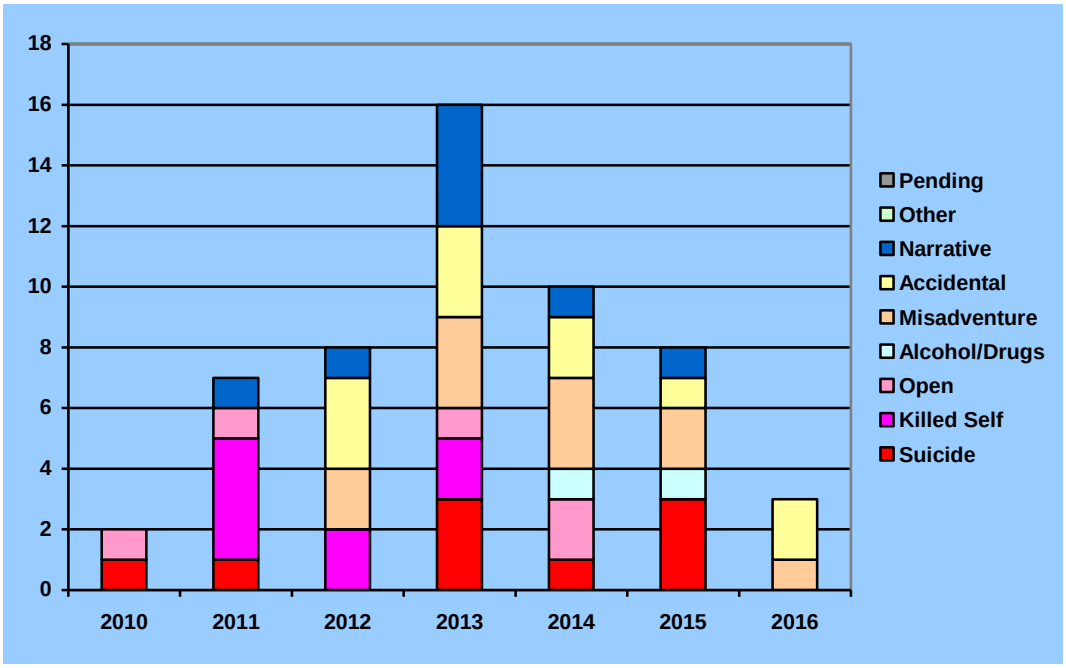
Over the seven year period there were eight unnatural deaths in assertive outreach (AOT) services, eleven deaths in early intervention in psychosis (EIP) services and eighteen deaths in IAPT services. No year to year trend is apparent in these services

There were six deaths in CYPS services with two occurring in 2016.

Deaths in other services were small with only one to three deaths over the six year period. These included community treatment team for learning disability, psychology services, primary care, gender dysphoria, and rehabilitation services.

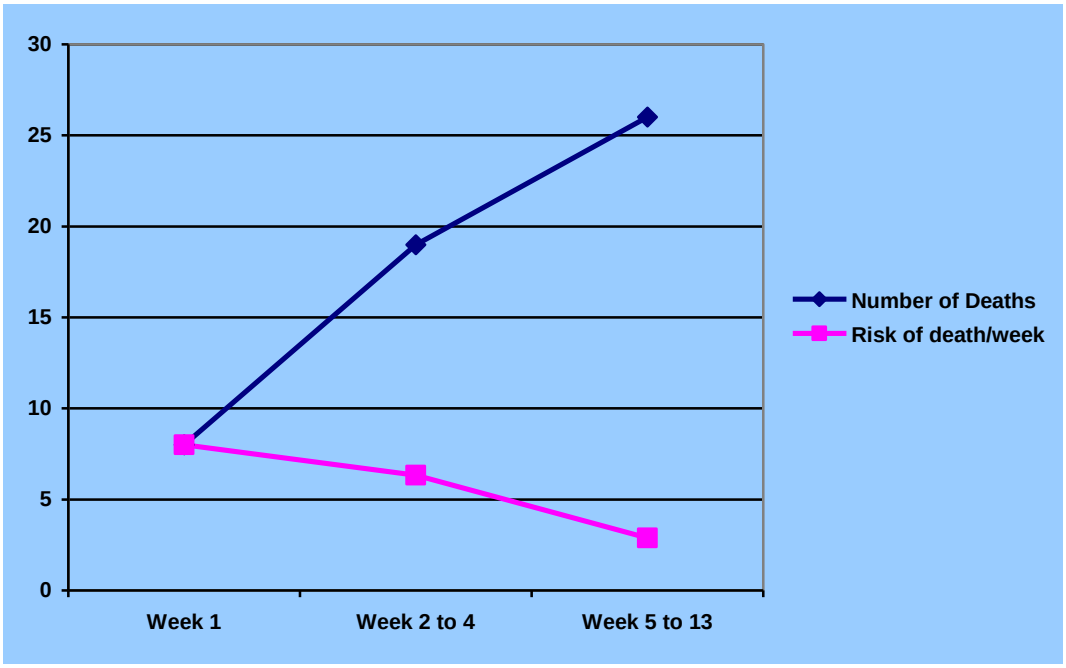
3.4. Unnatural deaths within three months of discharge from hospital

The number of deaths occurring within three months of discharge from hospital fell in 2014 and 2015 from a peak seen in 2013 (graph 2.10). In 2016 the number of such deaths continued to fall and only three deaths occurred, none of which were deaths by own hand.



Graph 3.10: Unnatural deaths within three months of discharge.

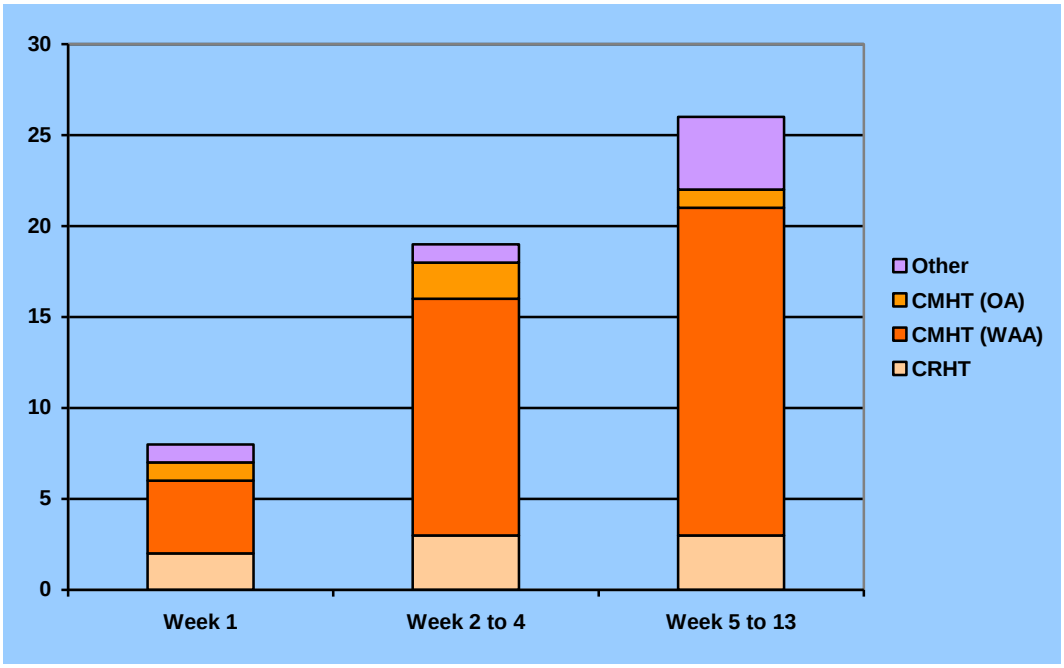
Most deaths occurred in the period from week 5 to week 13 after discharge (see graph 3.11). However, the period when service users were at highest risk of death, measured by the incidence rate (that is, the number of deaths occurring each week of the period), was in the first week followed closely by weeks two to four.



Graph 3.11 The number and risk of unnatural death following discharge from hospital.

This is reflected in the NCISH report which notes that most suicides occurred in the first week following discharge and that 15% of all patient suicides occurred within three month of discharge. Over the seven years of this report 22 patients died by own hand in that period compared with 215 across all services (10%). The authors of the NCISH note the peak time for suicide is on day two and three after discharge and recommend that seven day follow up should be converted to follow up within three days.

Graph 3.12 shows which service the patient was under at the time of death. Of the 54 deaths 39 occurred while the patient was being managed by a CMHT and towards the end of the three month period. Eight deaths occurred in CRHTs. Deaths under CRHT care accounted for a larger proportion of deaths occurring during the first week, but this was still less than the number of deaths occurring in CMHTs.



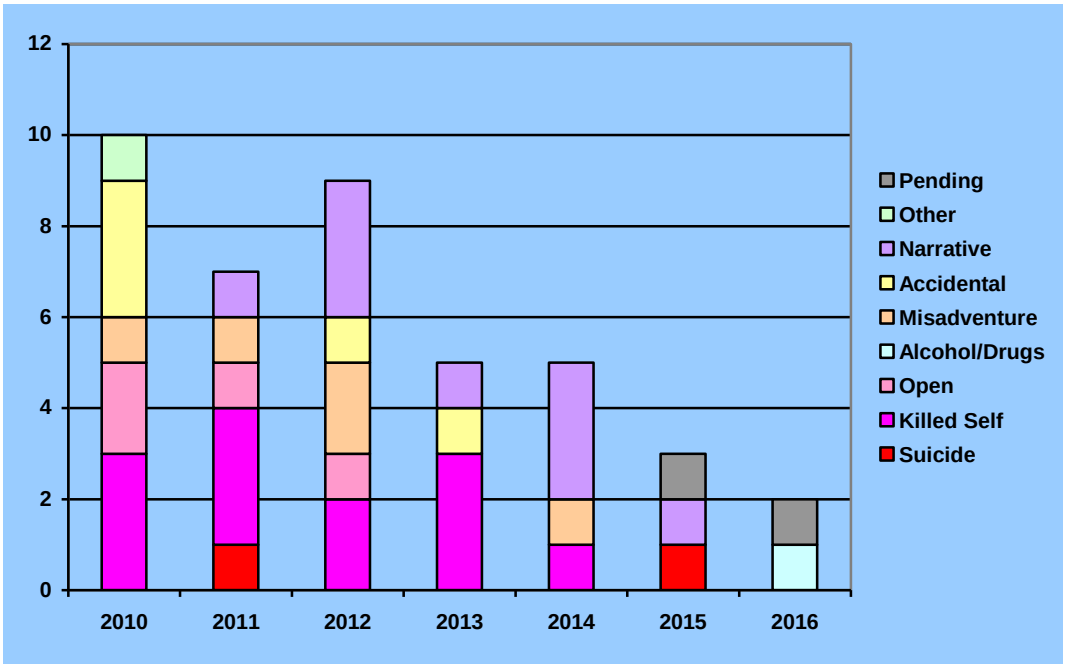
Graph 3.12: Unnatural death following discharge from hospital by service.

3.5. Unnatural deaths occurring whilst an inpatient

This analysis includes deaths of service users while an in-patient. It includes deaths which occurred on the ward but also deaths which occurred while an in-patient was on leave or absent without leave (AWOL).

Fortunately, deaths while an in-patient are rare events (graph 3.13). Over the seven year period there were a total of 41 deaths. Just over a half of these occurred on the ward (21 cases, 54%), with the remainder while the patient was on leave (11 on leave and 4 while AWOL).

The trend has been downwards, although the annual numbers involved are small. In 2016 there were two deaths reported – one was related to drug/alcohol misuse and the conclusion in the other is pending.



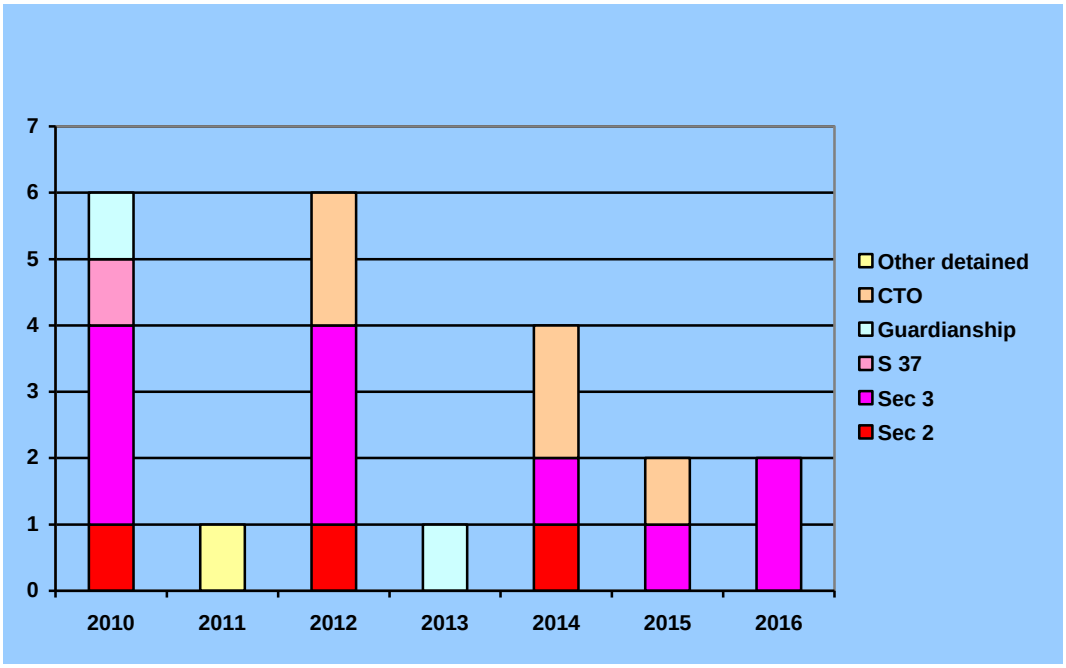
Graph 3.13: Unnatural deaths amongst in-patients.

Deaths occurring whilst an in-patient was on leave have become less common. In 2010 four in-patients died on leave and another one died while absent without leave. Two in-patients died on leave in 2011, two in 2012 (while AWOL), three in 2013 (all on agreed leave) and three in 2014 (one on leave, two AWOL). In 2015 the only in-patient who died was on agreed leave. No patient dies on leave or AWOL in 2016

The NCISH report notes that there has been a national fall in in-patient suicides between 2004 and 2015. Such deaths accounted for 9% of all patient suicides. In NTW *deaths by own hand* whilst an in-patient accounted for 9% of all *deaths by own hand* in the Trust.

3.6. Deaths while detained under the Mental Health Act

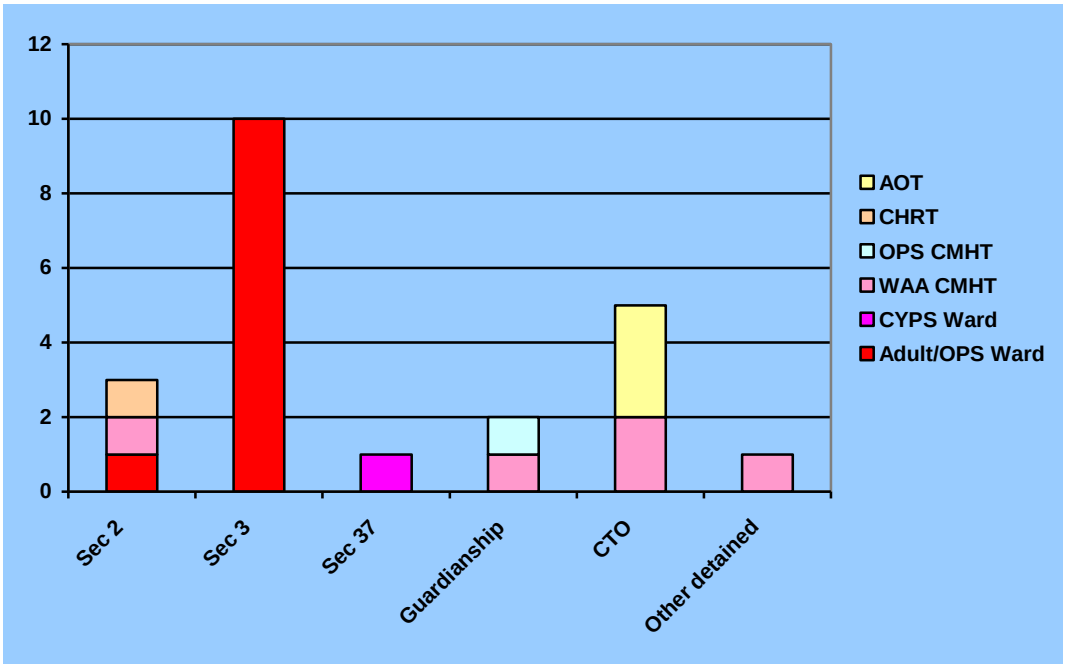
Each year a small number of people die unexpectedly while detained under the Mental Health Act. Over the six year period there were 22 such deaths ranging from only 1 death in 2011 and 2013 to six deaths in each of 2010 and 2012. There were four such deaths in 2014 and one death in 2015. Two deaths occurred in 2016, both detained under S3 on an in-patient ward



Graph 3.14: Unnatural deaths by MHAct status at time of death.

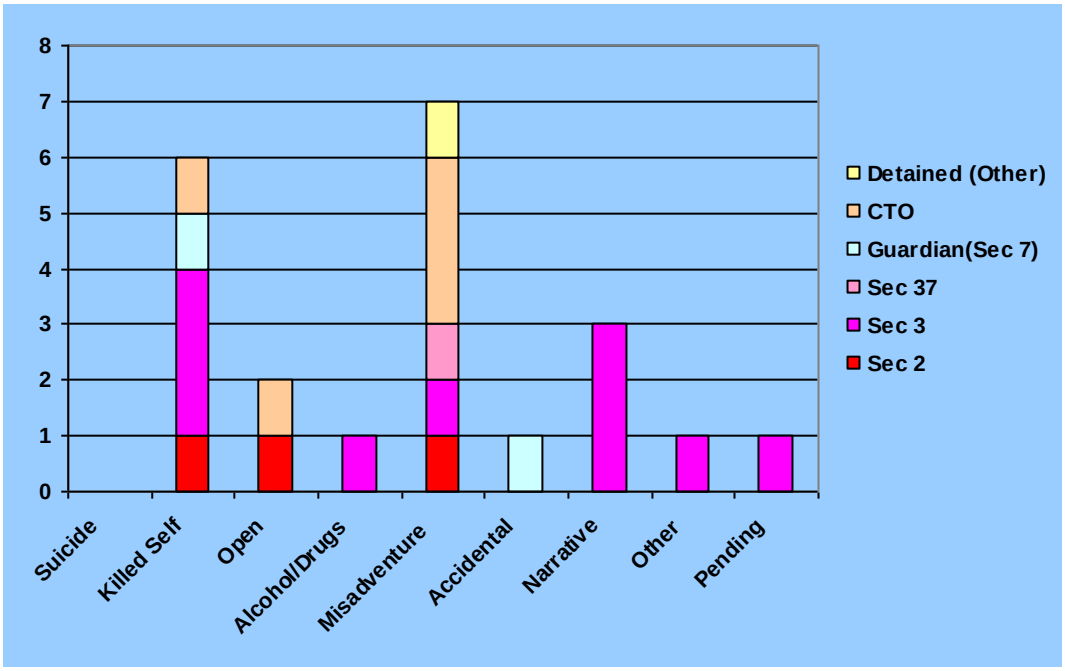
Ten deaths occurred while the service user was detained under Section 3, five deaths under a Community Treatment Order (CTO) and three under Section 2.

All deaths under Section 3 occurred on adult wards as did one of the deaths under Section 2 (graph 3.15). The remaining deaths under Section 2 occurred in adult CMHT or crisis home resolution teams. Five deaths of detained patients occurred while on Community Treatment Orders; three of these patients were in Assertive Outreach Teams and two in an adult CMHT.



Graph 3.15: Unnatural deaths by MHAct status and service type.

Misadventure was the most common conclusion (7 cases) followed by killed self (6 cases). A narrative or open conclusion was given in 3 cases each (graph 3.16)



Graph 3.16: Unnatural deaths by MHAct status and conclusion.

Chapter 4

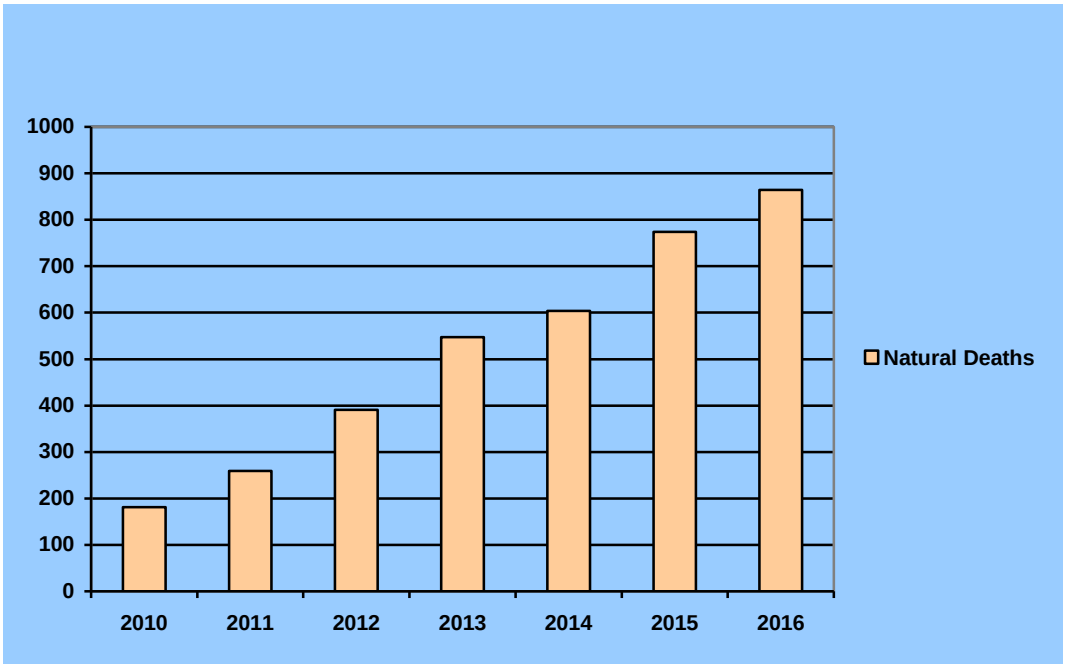
REVIEW OF NATURAL CAUSE DEATHS

4.1 OVERALL NUMBERS

This report summarises the data available in SafeGuard for deaths which have been reported into the system and determined to be of natural cause. A death will be reported as of natural cause if the death was certified so by the attending doctor or, when the death was unexpected and there was no doctor involved in the persons care immediately prior to death, by the coroner. In the latter case there may not have been an inquest where the coroner determined the cause of death shortly after death and there was no reason to suspect otherwise.

The extent of this data is limited as significantly less data is held for natural cause deaths than unnatural cause deaths. Planned improvements to the reviews and investigation process will address this issue going forward, thought the historical lack of data will persist.

Over the six years there were 3620 deaths recorded in SafeGuard where the cause of death was classed as natural. The numbers reported for each year have increased from that reported last year due to ongoing work to validate entries. The number of natural deaths has increased year on year reaching a peak in 2016 with 864 deaths reported.



Graph 4.1: Natural deaths by year.

The increase seen year on year does not necessarily indicate an increasing underlying rate of death; there has been a developing culture in the Trust encouraging reporting of natural deaths.

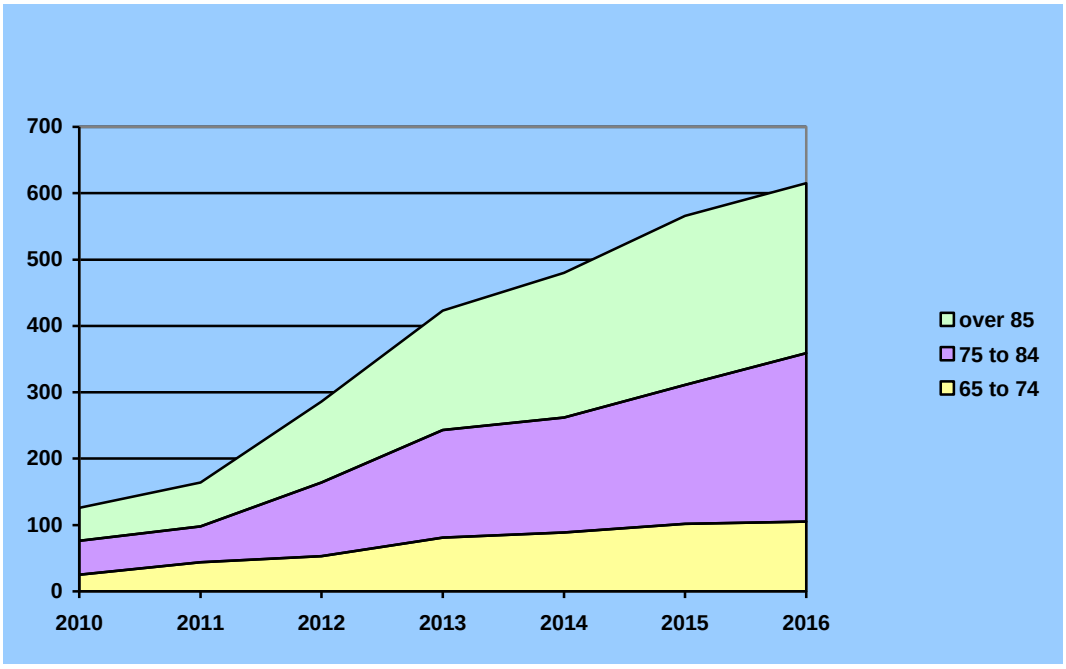
4.2 ANALYSIS BY AGE

Table 4.1 shows the total number of natural cause deaths by age band.

Age Band	under 18	18 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over	N/R	Grand Total
2010	2	1	3	17	15	17	25	51	50		181
2011		2	11	21	25	36	44	54	66		259
2012		3	6	18	30	47	53	111	122	1	391
2013	1	2	3	16	43	59	81	162	180		547
2014	1	1	7	27	46	40	89	173	218	2	604
2015	1	3	11	20	44	75	102	209	255	54	774
2016	1		12	33	59	86	105	254	256	58	864
Grand Total	6	12	53	152	262	360	499	1014	1147	115	3620

Table 4.1 Natural cause deaths by age band

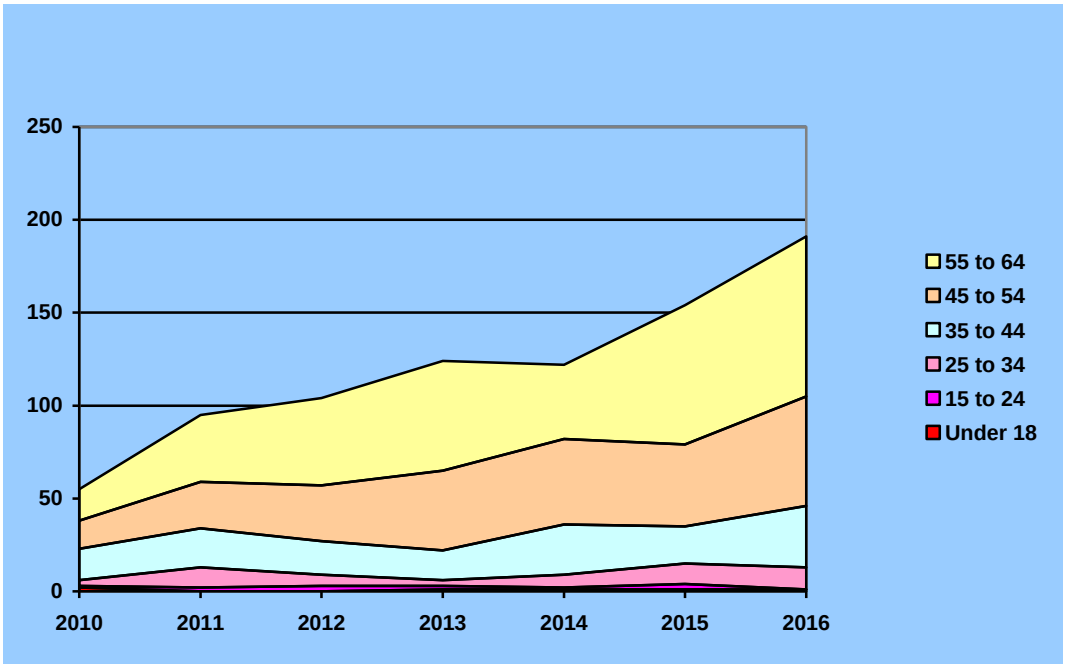
Over time the biggest increase in reporting of natural deaths has been for persons aged over 65 (graph 4.2). In 2010 only 126 such deaths were reported while in 2016 this had risen to 615 – nearly a fivefold increase. The increase was particularly marked in the age bands 75-84 and over 85. This may reflect the increasing age of the general population and case-loads and/or enhanced emphasis on the importance of reporting deaths in these age groups.



Graph 4.2: Natural deaths by age group - over 65

Deaths in service users aged under 65 increased from 55 in 2010 to 191 in 2016 (graph 4.3). There has been a notable increase in the rate of reporting since 2014/15 which probably reflects Trust activity to encourage reporting as the focus on natural cause deaths increased.

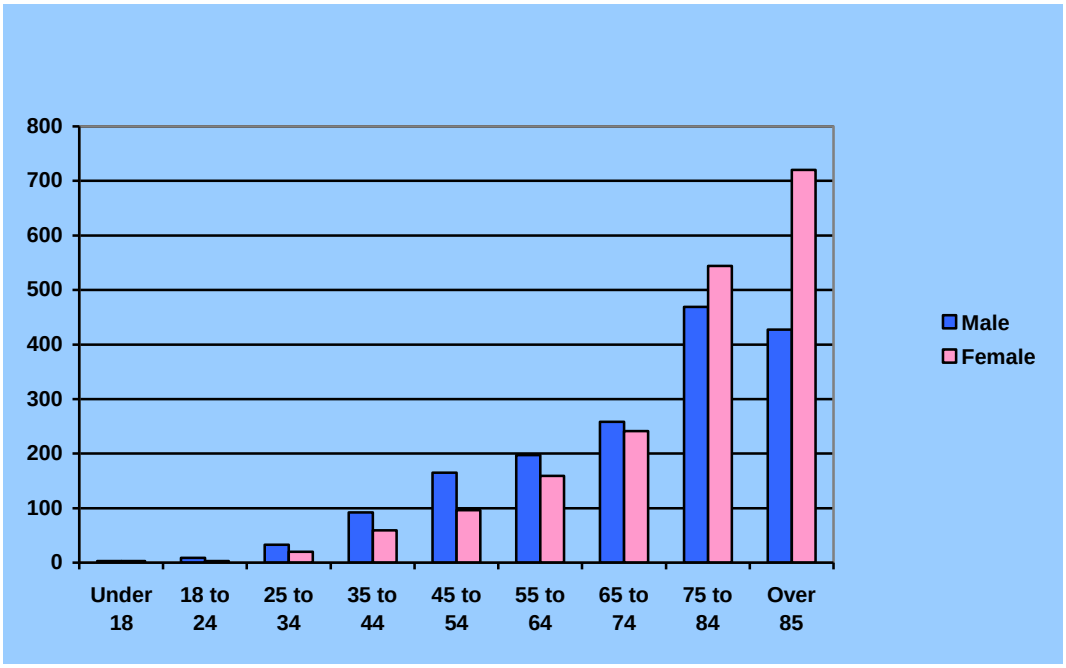
The largest change has been in the age groups 45-54 and 55-64 which have increased throughout the seven year period. The reasons for this change are not clear currently. As described in section 4.3, the bulk of deaths in these age groups are in men.



Graph 4.3: Natural deaths by age group - under 65

4.3 ANALYSIS BY SEX

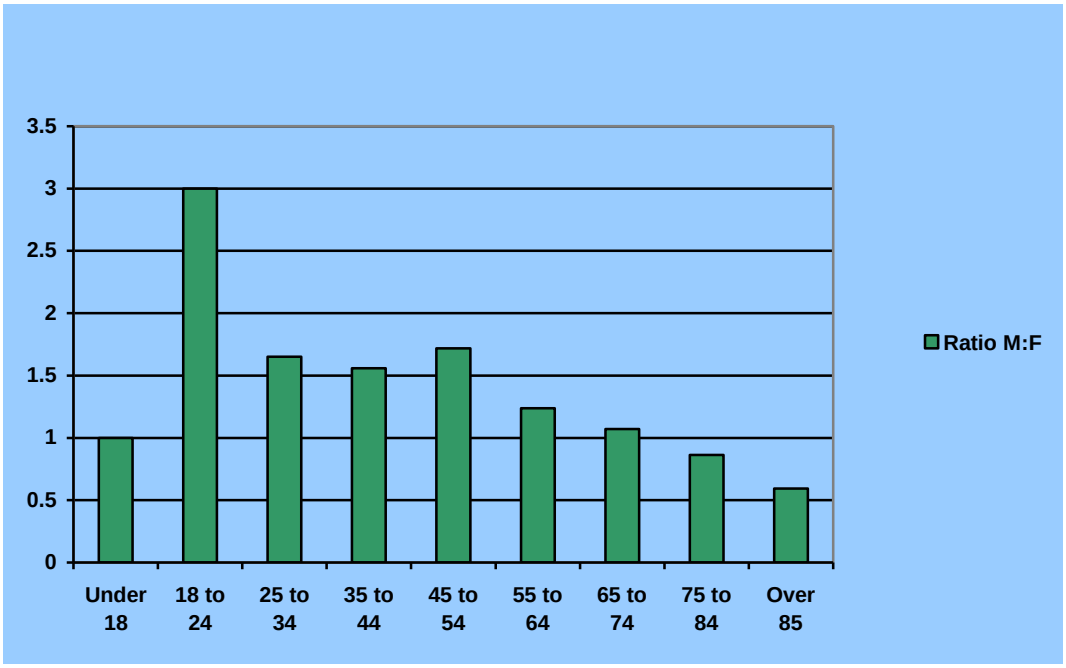
Sex was recorded for 3613 records but was absent in seven reports. Of the incidents in which sex was recorded 1697 deaths were in men (47%) and 1916 in women (53%). This ratio is unchanged from 2015. (see graph 4.4)



Graph 4.4: Natural deaths by sex and age band

However, natural deaths in men were more common at younger ages while natural deaths in women only predominated after the age of 75 (see graph 4.5).

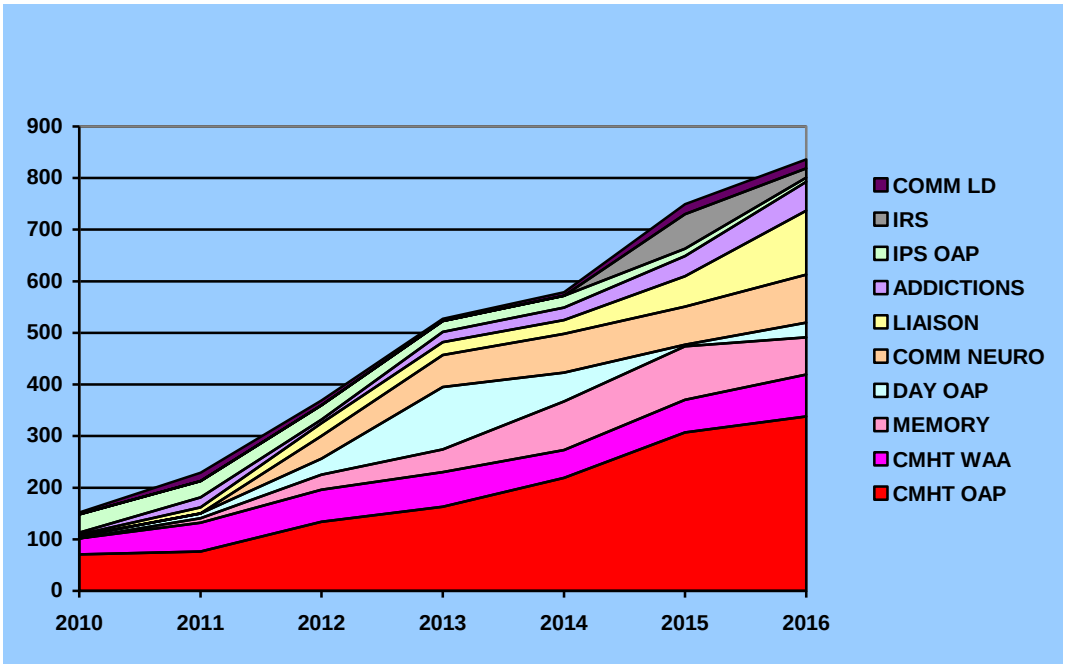
At age under 65, there were 499 deaths in men and 340 in women; this is a male: female ratio of 3:2. In service users aged over 65 the ratio was reversed with 1154 deaths in men and 1505 in women



Graph 4.5: Natural deaths by M:F ratio and age band

4.4. ANALYSIS BY SERVICE TYPE

Graph 4.6 shows the change over time for the number of natural cause deaths reported by the top 10 service types between 2010 and 2015.

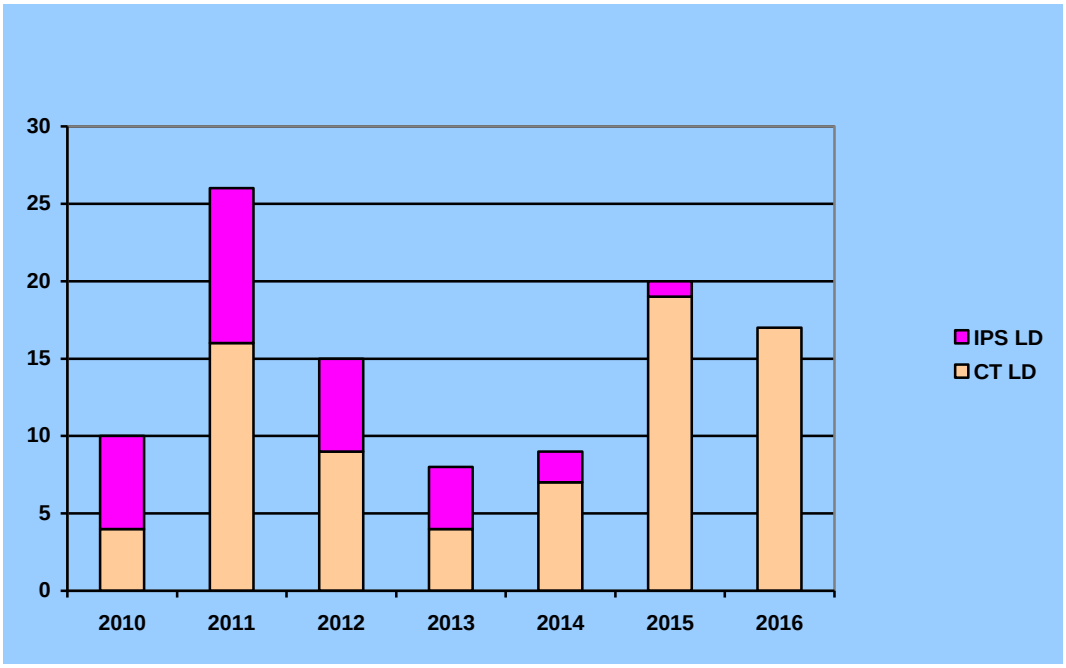


Graph 4.6: Natural deaths by service type for top 10 services

Over the six year period the largest increase in natural death reporting has occurred in CMHTs for older people and memory services, where the majority of service users are older people. Memory services have increased in number and client base over the period. Reports from older people's day services increased until 2013 and then declined with the closure of some facilities. Older people dying within in-patient wards has fallen, probably explained by the closure of several long stay wards for dementia and behavioural problems. Deaths reported from older people community and in-patient services accounted for 50% of all natural deaths reported over the period 2010-2016.

Natural cause deaths in adult CMHTs has increased since 2010, but remained fairly static between 2013 and 2015. In 2016 the number rose from 63 to 81 reported natural cause deaths.

Natural cause deaths reported by learning disability services shows year to year variation with a peak in 2011 followed by a fall in the three subsequent years (graph 4.7) Reports from community learning disability services rose in 2015 and 2016, though there was only a single in-patient death in these two years. It is difficult to ascertain if this increase in community reports was due to increased emphasis on reporting or reflected a true increase in deaths. All deaths of persons known to have a learning disability are now referred to the local contacts for LeDeR so that cross organisational learning can occur.



Graph 4.7: Natural deaths reported by LD services

Natural cause deaths have been reported from IRS in 2015 as the service has developed. There were 67 such deaths reported in 2015 but this fell to 18 in 2016.

Similarly, liaison services have expanded over time and this may explain the increase of natural cause death reports from 3 in 2010 to 124 in 2016. Many of these deaths will have occurred in persons with limited contact with mental health services only during their stay in an acute general hospital.

Community neurological services did not report any natural cause deaths prior to 2012 but is now reporting a consistent number each year.

4.5. ANALYSIS BY CAUSE OF DEATH

SafeGuard does not currently hold comprehensive data on the underlying cause of death for those reported as natural cause. This seriously hampers exploration of the cause of such deaths to determine which may have been avoidable. The improved review process is addressing this issue by identifying cause of deaths for th9ose deaths subject to a mortality review.

Chapter 5

CONCLUSION

This is the latest in a series of reports received by the Board which provides an analysis of deaths recorded in the Trust SafeGuard incident reporting system. The purpose of these reports is to inform the Board of the numbers of deaths and identify trends which might suggest significant safety issues. It complements other systems and reporting, and in particular the enhanced reporting of natural cause deaths and lessons learnt which the Board has been receiving since April 2017 in line with new requirements on Learning from Deaths.

Analyses of this type have limitations, drawing data from large databases which are subject to quality issues. Over time effort has been made to validate records which means that figures reported in subsequent reports may differ slightly from those in previous reports. Such analyses also only give a limited view of deaths from an epidemiological level. They do not explain the reasons behind such changes, nor identify learning in themselves. They can, however, highlight areas of potential concern and direct further investigation which can lead to learning.

The cross organisational work being undertaken by the nine Trusts in the Northern Alliance and Mazars is beginning to highlight areas for further review. While it is reassuring that NTW has average mortality rates for premature, unexpected and deaths from most physical causes when compared with other Trusts in the Alliance, it is of some concern that in many cases the rates are above the national average. This is particularly so for deaths from external causes. However, this is based on data from a single year (2014/5), and should be revisited when newer data becomes available.

In general, the total number of unnatural deaths recorded in SafeGuard each year appears to have plateaued between 2013 and 2016. While there are outstanding coroner conclusions especially for 2016, there is an indication that deaths where the service user appears to have killed themselves has also plateaued but at a lower rate than in the earlier years of this report.

Within community services the area in which the number of deaths has increased is addiction (drug and alcohol services) where there has been a year on year increase. This may be partly explained by the increase in the number of services provided by NTW. However, the number of deaths attributed to suicide remains small; most deaths are due to misadventure, accident or drug/alcohol misuse.

While raised as areas of concern by the National Confidential Inquiry into Suicide and Homicide (NCISH), deaths in crisis resolution and home treatment (CRHT) teams remain small and deaths reported as occurring within tree months of discharge from hospital have decreased. Nonetheless, the Trust should consider the advice from the NCISH to reduce seven day follow up to three days. Unnatural death amongst in-patient has reduced year on year.

Natural cause deaths will become an area of increasing focus. The number of reports increase year on year, particularly amongst person aged over 65 but also in younger age groups. This may also be partly explained by an increased focus on

reporting such deaths. It is interesting that death in younger males outnumber females.

Over the next year there should be more opportunities for benchmarking the NTW experience against other Trusts particularly through additional work undertaken across the Northern Alliance and with Mazars. Increased opportunities for learning will arise from the additional mortality reviews being undertaken and closer working with local acute Trusts.

Appendix 1:
Methodology and cautions

This analysis was undertaken on data extracted from NTW SafeGuard on 10th November 2017. The inclusion criteria were that the cause 1 field was DE01 – Unexpected Deaths; DE02 – Expected Death; DE08 Unexpected Death Natural Cause; and DE18 Unexpected Death Local AAR

As this is a live database, which is continually updated with results from coroner conclusions[1], the data, and consequently the analysis, will change on a daily basis.

The analysis covers unexpected deaths reported through the Trust web based reporting system over the seven year period from January 1st 2010 to December 31st 2016. Cases are allocated to a calendar year based on the date of death, where known, or notification of death from the coroner. The calendar year is used as the time period to enable comparison with national data from the National Confidential Inquiry into Suicides and Homicides which also uses calendar, rather than financial, years. This comparison is undertaken later in the year following the publication of the NCISH report in July.

Cases are allocated to a service line based on the entry in SafeGuard, which is derived from information provided through the web report. With the rollout of Transforming Community Services the names of many community services have changed from those used in previous years. In this analysis services have been clustered into service types representing similar services such as CMHTs.

In undertaking the analysis on this occasion a data cleansing and validation exercise was undertaken on the records held in SafeGuard. Several records have been reclassified and therefore data presented in this report are not directly comparable with data presented in previous years.

An ***unexpected death*** is one which occurs in the absence of ill health which led to a predictable death. Where that death occurred as the result of a natural pathological process (e.g. heart attack/stroke/pneumonia etc), it is termed a ***natural unexpected death***. Where death was otherwise caused, often through own intent and/or the involvement of an external agent, it is termed an ***unnatural unexpected death***.

Coroner conclusion outcomes are obtained from the coroner's office after the inquest has been held. This may be several months after a death has occurred, although this time gap is currently falling. The data provided in SafeGuard is a direct quote from the coroner office report.

For the purpose of undertaking this analysis some reclassification of the coroner conclusion is necessary.

1) Where a coroner has used a standard form of conclusion this is the term used. This includes ***Suicide, Open, Misadventure***, and ***Accident***.

2) Where the coroner has used a short narrative conclusion the following reclassification has been used.

[1] Previous reports have used the term *verdict*; this has been replaced with the current term *conclusion*

- Where the words drug(s) and/or alcohol appear the conclusion is reclassified as ***Drug/Alcohol***.

- Where there is an indication that the person has killed themselves, but no indication of intent is apparent, the conclusion is reclassified as ***Killed Self***.

3) Where the coroner has given a long narrative conclusion this is reclassified as ***Narrative***.

4) There are a small number of cases where it is not possible to determine the coroner conclusion. These cases are classified as ***Other***.

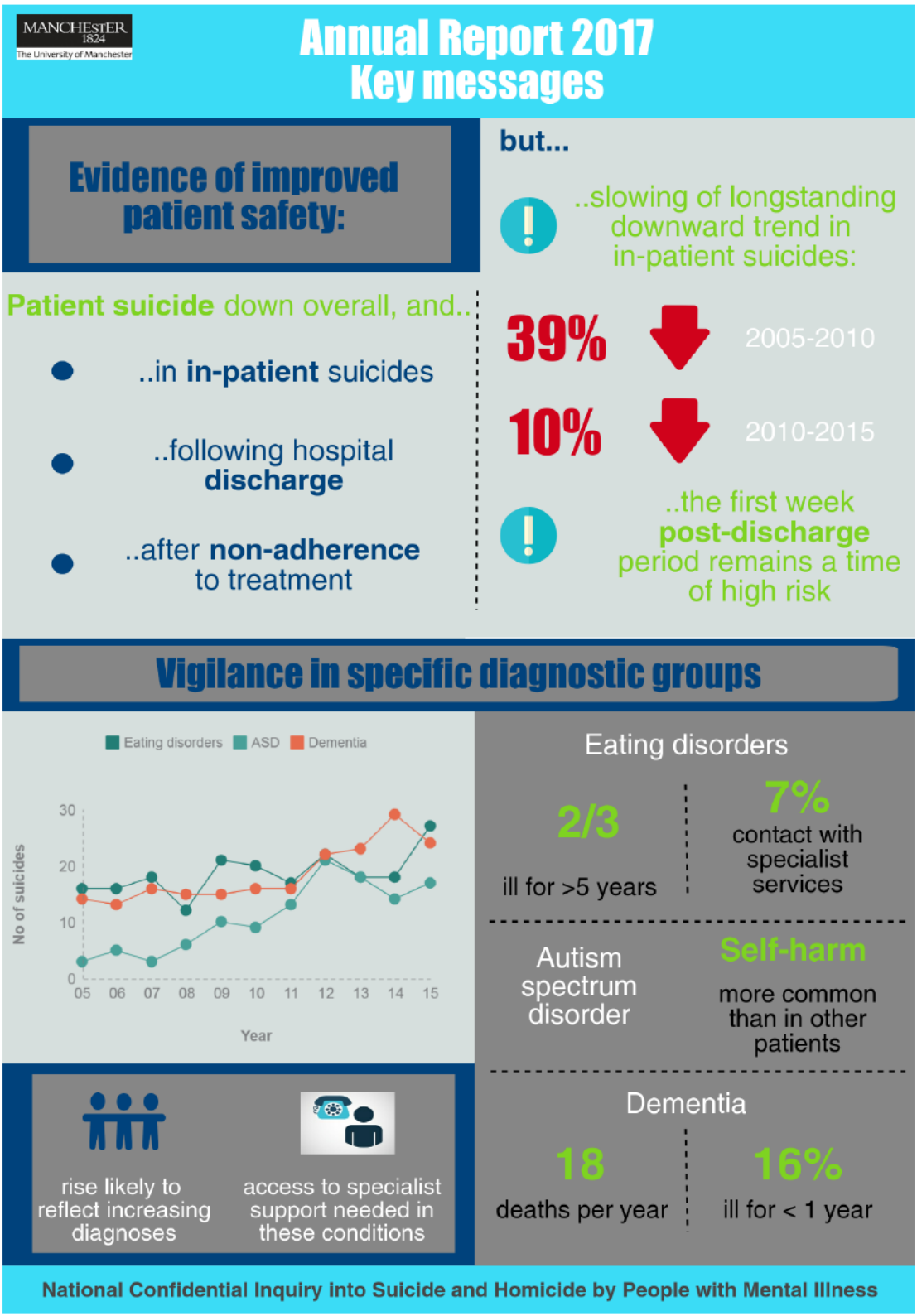
5) Where the coroner has not yet given a conclusion the cases is classified as ***Pending***.

The term ***Death by own Hand*** is used to describe all events where it is likely that the person killed themselves, whether they had intended to do so or not. This includes all *Suicide* conclusions, all deaths re-classified as *Killed Self* and all *Open* conclusions (conventionally included in analyses of suicide cases).

This is an interim analysis as there are a significant number of conclusions still pending, particularly for deaths occurring in 2015. Many of these may be returned as either natural deaths, or due to accident/misadventure. Therefore, it cannot be concluded, at this stage, that they represent persons who died by own hand. There is a balance to be drawn between an early analysis which is timely and spots developing patterns, and a later analysis which is accurate and allows informed interpretation. National data which can be used to benchmark NTW data is not available until at least one year behind Trust data.

In many cases, particularly the analyses on individual services, the number of events in any time period are small and subject to random variation. Therefore, caution is needed in interpreting short term trends; for example, year to year differences.

Appendix 2:
Infographic summarising major findings of the 2017 NCISH report



MANCHESTER 1824
The University of Manchester

Annual Report 2017
Key messages

Reducing suicide by overdose:

safer prescribing of opiate & opiate-containing analgesics

424 self-poisoning deaths per year

opiates most frequent type of drug in fatal overdose

however, figures have fallen in England, Scotland, Wales

88-100% in UK countries

Most patients convicted of homicide have a history of alcohol or drug misuse

Risk from mental health patients is related to co-existing substance misuse

Alcohol & drug misuse:

specialist substance misuse & mental health services to work together in risk management

Health and justice:

concern over prison sentences for people with severe mental illness

Patients with schizophrenia convicted of homicide offence:

41%

Many are sent to prison rather than hospital

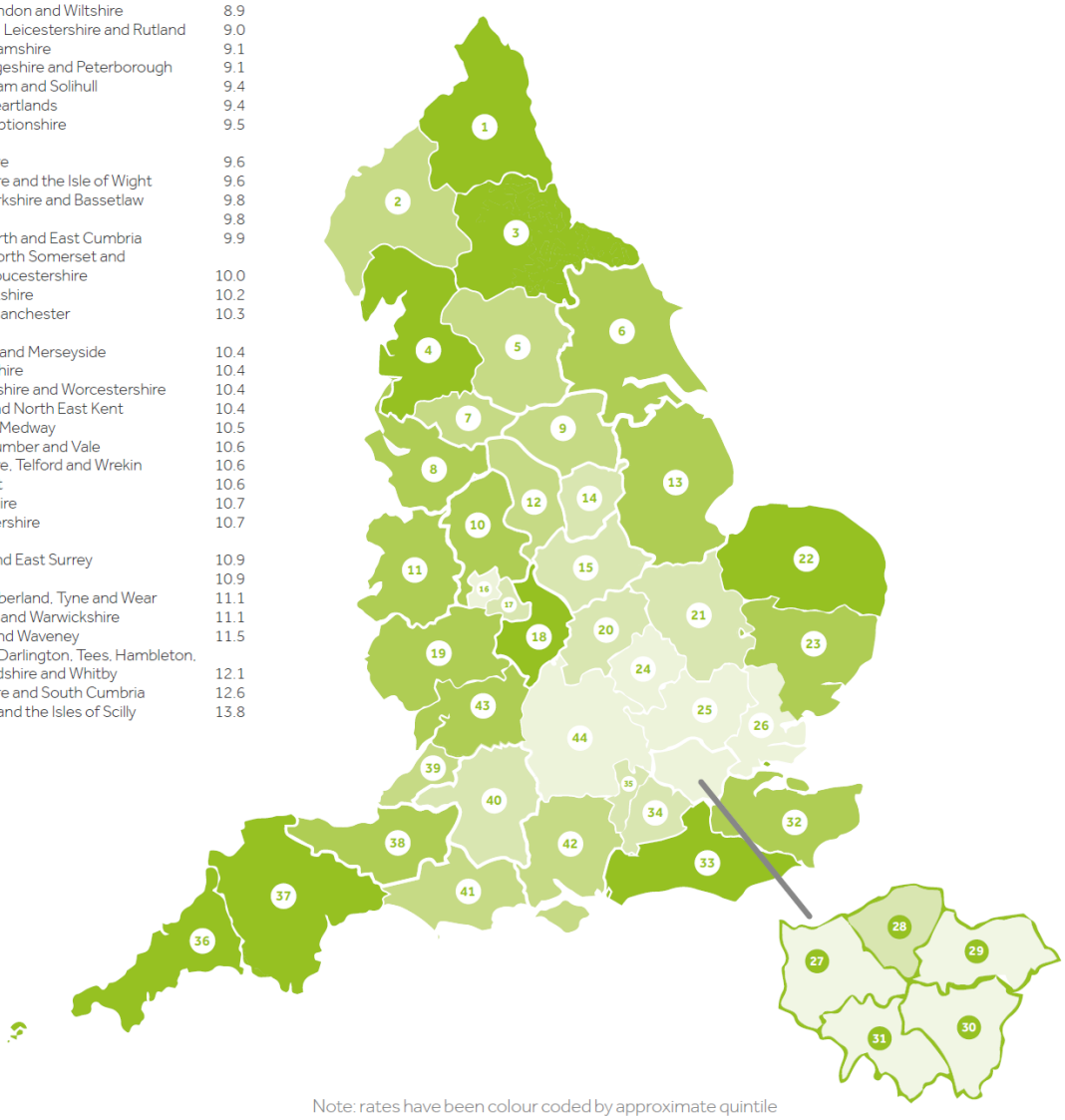
Further understanding needed of sentencing decisions

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

Appendix 3:
Rates of suicide in the general population by STP area, 2012-14 (NCISH report, 2016)

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