CONTAINS PROVISIONAL DATA

Data Briefing:

In depth analysis of admissions to hospital for self-harm in West Sussex using Hospital Episode Statistics (HES)

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2 Summary

2.1 Key findings

- In 2015/16, the directly age-sex standardised rate of emergency hospital admissions for self-harm was significantly higher in West Sussex than England. This has increased significantly from the previous year
- For the past few years, the rate of emergency hospital admissions for self-harm has significantly exceeded the West Sussex rate in Adur and Worthing, and has been significantly lower in Horsham and Mid Sussex
- Self-harm is more prevalent among young people. In 2015/16, nearly 40% of emergency admissions for self-harm were for young people aged 10-24
- Local data suggests that the directly age-sex standardised rate of emergency admissions for self-harm among young people (aged 10-24) has also seen a significant increase from 2014/15
- Women account for a greater proportion (approx. 65%) of self-harm admissions in West Sussex. This aligns with national research that suggests women are more likely to self-harm than men
- 87.2% of emergency admissions for self-harm were due to intentional poisoning in West Sussex (2015/16)
- Across both 2014/15 and 2015/16, 46.2% of all admissions for self-harm were multiple admissions (i.e. the same patient admitted twice or more within the two years)
- During 2014/15 and 2015/16, a small number of patients (3%) were admitted to hospital for self-harm five times or more in West Sussex. This group accounted for 17.7% of all admissions for self-harm in the county
- The majority of patients were discharged to their usual place of residence following admission for self-harm
- Emergency admissions rates of self-harm are greater in the most deprived areas in West Sussex

This data represents those self-harm events that are severe enough to warrant hospital admission. This is the tip of the iceberg of the true burden of self-harm on health and wellbeing in West Sussex

3 Notes and Caveats

3.1 Data sources

- Local analysis of Hospital Episode Statistics 2014/15 and 2015/16
- Public Health Outcomes Framework

3.2 Data Caveats

3.2.1 Hospital Episode Statistics (HES)

In May 2017, PHE released data for the indicator 2.10ii – Emergency Hospital Admissions for Intentional Self-Harm. As part of this release, data for 2015/16 and previous years has been revised slightly due to a change in methodology[1].

Previous versions of this report (February 2017) used the old methodology to calculate this indicator. This means that earlier versions of this report will have slightly different rates to those now given by PHE. Whilst these values are correct, the newer rates should be reported in order to maintain consistency with national releases, and to allow comparison across all geographical areas (previous local analysis was unable to present data at a national level).

Additional local analysis using Hospital Episode Statistics (HES) is given in this report – particularly around cause of admission, recurrent admissions, deprivation and duration of stay. This data is calculated from a subset of HES at the West Sussex geography and should be viewed as provisional.

Admissions data relates to episodes rather than persons. Some individuals may have been admitted to hospital for self-harm multiple times in one year. These will be recorded as separate admissions.

3.3 Where to go for help

If you are struggling to cope, please call Samaritans for free at any time, from any phone on 116 123 (UK and ROI), email jo@samaritans.org, or visit the Samaritans website to find details of the nearest branch. Samaritans is available round the clock, every single day of the year, providing a safe place for anyone struggling to cope, whoever they are, however they feel, whatever life has done to them.

[1] Directly age standardised rates are now given, rather than rates standardised by both age and sex.

4 Background

4.1 Self-harm

Self-harm is defined as "any act of self-poisoning or self-injury carried out by a person, irrespective of their motivation"[i]. This most commonly relates to self-poisoning or self-injury by cutting, but does not include harm arising from excessive alcohol consumption or recreational drugs, overeating or starvation, or accidental harm.

The many complex factors that contribute to self-harm are poorly understood. The incidence of self-harm continues to rise in England, and is particularly prevalent among young people and women. Variation in levels of self-harm among different age and social groups within society is worrying.

A number of wider determinants are associated with an increased risk of self-harm. Mental health problems such as depression, schizophrenia, and drug and alcohol misuse are strongly associated with self-harm. In addition, women are more likely to self-harm than men, although completed suicide is more prevalent among men. Individuals who self-harm repeatedly have a higher risk of mortality from suicide in the months following harm than those who do not, although self-harm should not always be taken as an indication of suicidal tendencies.

Those at greater risk of self-harm include:

- Women[ii, iii] - although variation in gender ratios across the life cycle does exist
- Young people – one study estimates that 10-13% of 15-16 year olds have self-harmed at some point in their lifetime[iv], and recent evidence suggests that this is increasing
- People who abuse drugs or alcohol
- People with mental health problems[v]
- Prisoners[vi]
- People who are lesbian, gay or bisexual [vii], or referred to as transgender
- Women of South Asian ethnicity[viii]
- Individual factors, such as personality traits, family history, exposure to trauma, social isolation, significant life events, deprivation and income can all contribute directly to, or influence risk of self-harm and wider mental health.

5 Admissions to hospital for self-harm

5.1 Hospital Episode Statistics

Hospital Episode Statistics (HES) is a record based system of all hospital admissions, outpatient appointments and A&E attendances at NHS Hospitals in England. This data can be used to monitor trends and patterns of admissions for specific causes/conditions.

The following data relates to emergency admissions for self-harm. This data does not show the full extent of self-harming behaviours in West Sussex, as many instances of self-harm do not require (or seek) medical attention. Instead, this data represents those self-harm events that are severe enough to warrant hospital admission. This is the tip of the iceberg of the true burden of self-harm on health and wellbeing. The vast majority (more than 99%) of admissions for self-harm are emergency admissions[ix].

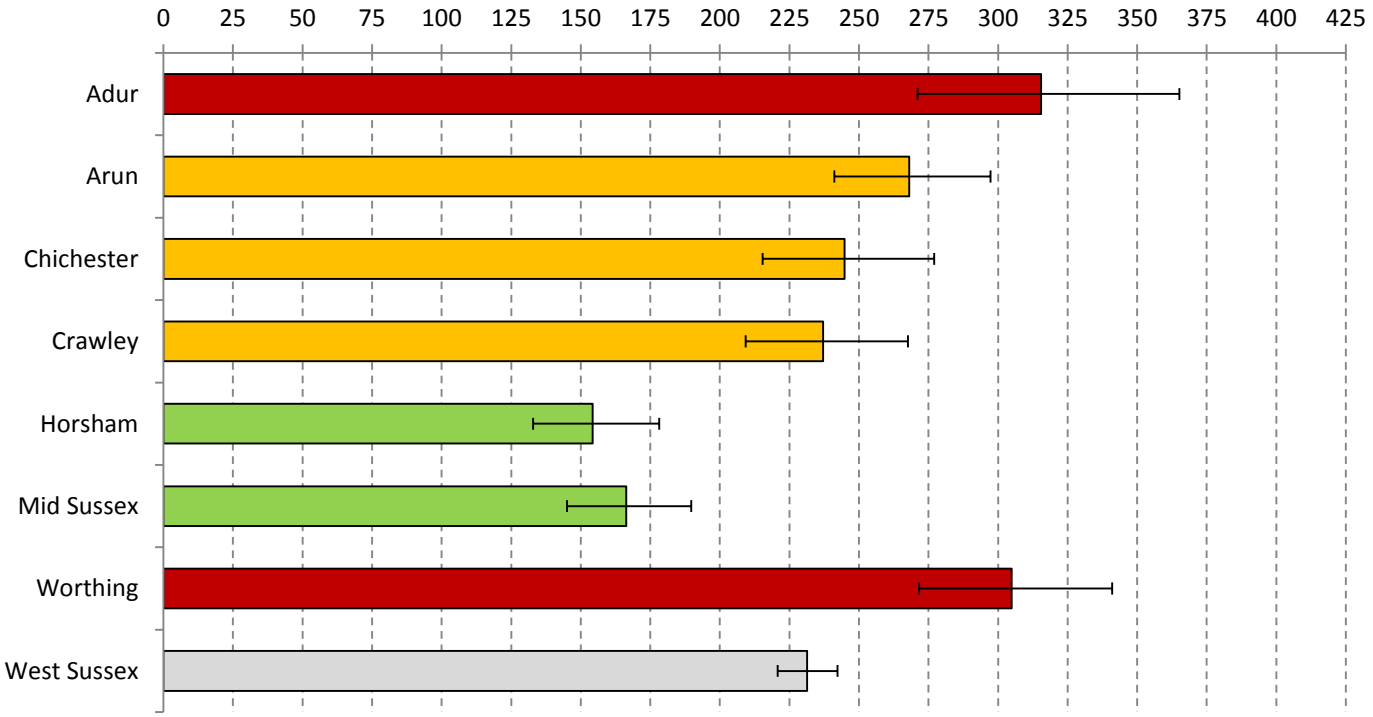
5.1.1 Emergency admissions to hospital for self-harm (2014/15)

Hospital stays for self-harm are monitored in the Public Health Outcome Framework (PHOF). This indicator is defined as:

> *Emergency hospital admissions for intentional self-harm defined by external cause codes (ICD10 X60-X84). This is a count of first finished consultant episodes with an external cause of intentional self-harm and an emergency admission method.*

In 2014/15, there were 1,810 emergency hospital admissions for self-harm in West Sussex (all ages). This does not reflect the number of individual patients who were admitted to hospital, as the same person may have been admitted on multiple occasions (section 5.1.5 for further information). This equates to a directly age standardised rate of 231.3 emergency hospital admissions for self-harm per 100,000 population (95% CIs: 220.7-242.3). This is significantly higher than the rate for England (193.2 per 100,000; 95% CIs: 192.1-194.4).

Figure 1: Emergency hospital admissions (First FCEs) for self-harm in 2014/15: directly age standardised rate (per 100,000 population

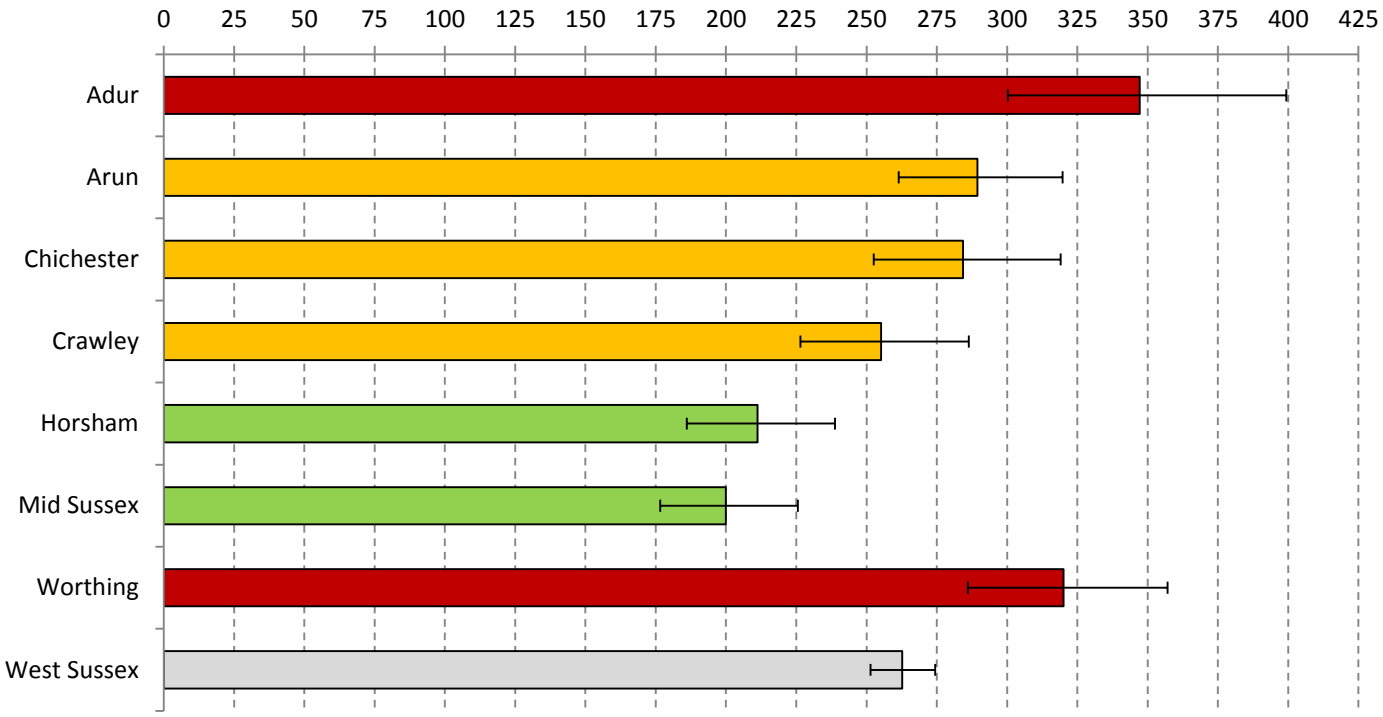


Source: PHOF 2014/15. Colours relate to comparisons with West Sussex. Red = significantly higher, amber = no difference, green = significantly lower.

5.1.2 Emergency admissions to hospital for self-harm (2015/16)

In 2015/16, there were 2,051 emergency hospital admissions for self-harm in West Sussex; a directly age standardised rate of 262.7 per 100,000 population (95% CIs: 251.4 to 274.4). This represents a significant increase from the previous year. West Sussex has a significantly higher rate of emergency hospital admissions for self-harm than England (DSR: 196.5; 95% CIs: 195.4 to 197.7).

Figure 2: Emergency hospital admissions for self-harm in 2015/16: directly age standardised rate (per 100,000 population)



Source: Hospital Episode Statistics 2015/16. Colours relate to comparisons with West Sussex. Red = significantly higher, amber = no difference, green = significantly lower.

The directly age standardised rates of emergency hospital admissions for self-harm are shown by local authorities in Figure 2. Adur and Worthing have a significantly higher rate of emergency admissions than the West Sussex average whereas Horsham and Mid Sussex have a significantly lower rate. This follows the pattern seen in the previous year (Figure 1). Apart from Horsham and Mid Sussex, all local authorities in West Sussex have a significantly higher rate of emergency hospital admissions for self-harm than England.

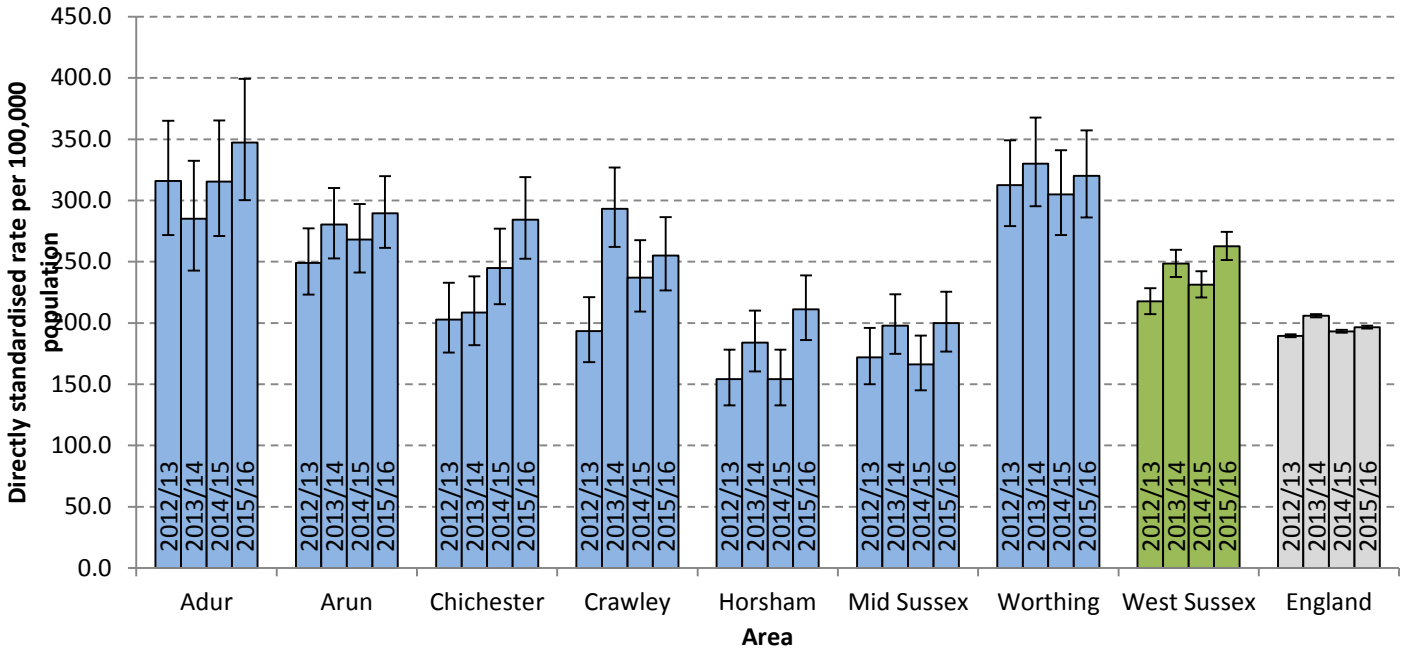
Table 1: Directly age standardised rate (per 100,000 population) of emergency hospital admissions for self-harm in West Sussex (2015/16)

	Rate (DSR per 100,000)	95% Confidence Interval	
		DSR lower	DSR upper
Adur	347.2	300.3	399.3
Arun	289.5	261.4	319.7
Chichester	284.4	252.5	319.1
Crawley	255.1	226.5	286.4
Horsham	211.3	186.1	238.8
Mid Sussex	200.0	176.5	225.6
Worthing	320.1	286.1	357.2
West Sussex	262.7	251.4	274.4
England	196.5	195.4	197.7

Source: PHOF 2015/16

Figure 3 shows the directly age standardised rate of emergency admissions for self-harm overtime. The rates of emergency admissions for self-harm have been consistently high in West Sussex since 2012/13. All local authorities in West Sussex saw an increase in the rate of self-harm in 2015/16 compared to 2014/15.

Figure 3: PHOF Indicator – Hospital Stays for Self-Harm (2012/13 to 2015/16) in West Sussex. Directly age standardised rate per 100,000 population



Source: Public Health Outcomes Framework.

5.1.3 Hospital admissions for self-harm by age and gender[2]

Self-harm is more common among young people, and often manifests during adolescence. A World Health Organisation (2013/14) study revealed that the number of teenagers who self-harm has increased significantly in the past decade, with 20% of 15 year olds reporting that they have self-harmed in the past year. This compares to 6.9% reporting that they have self-harmed in 2002.

In 2015/16, young people aged 15-19 accounted for more than a fifth (20.8%) of all emergency hospital admissions for self-harm in West Sussex. There were 427 emergency hospital admissions of people aged 15-19 for self-harm during 2015/16 in the county. This compares to 349 emergency admissions in 2014/15.

In total, young people (aged 10-24) account for nearly 40% of all admissions for self-harm (38.7%) in West Sussex. This equates to a directly age-sex standardised rate of 623.7 emergency admissions for self-harm per 100,000 population aged 10-24 - a significant increase from the previous year (Table 2).

Table 2: Number and directly age-sex standardised rate of emergency admissions (first FCEs) to hospital where self-harm was the recorded cause in West Sussex; persons aged 10-24 (2014/15 and 2015/16)

	Number of First Finished Consultant Episodes	Mid-Year Population Estimate	Rate (DSR per 100,000)	95% Confidence Interval	
				DSR lower	DSR upper
2014/15	660	130,773	516.9	478.1	558.1
2015/16	794	130,841	623.7	580.9	668.9

Source: local level analysis of HES 2014/15 and 2015/16
Note. 2014 mid-year estimate for 2014/15 and 2015 mid-year estimate for 2015/16. The rate has been standardised using the European 2013 standard population.

[2] Note that the data presented here is based on local analysis of HES and therefore rates may differ slightly to those presented by PHE in the Children's and Young People's Mental Health and Wellbeing Profile.

As in previous years, the majority of admissions for self-harm were women (64.3% in 2015/16 and 67.4% in 2014/15 -Table 3). This aligns with survey data that suggests self-harm is more common among women than men. However, this difference may be in part explained by the fact that men may engage in self-harm behaviours that are less likely to be recognised as such (e.g. punching), and are less likely to require medical attention.

Locally and nationally, the rate of emergency admissions for self-harm is significantly higher among women than men. The rates of admissions for self-harm among both sexes in West Sussex significantly exceed England.

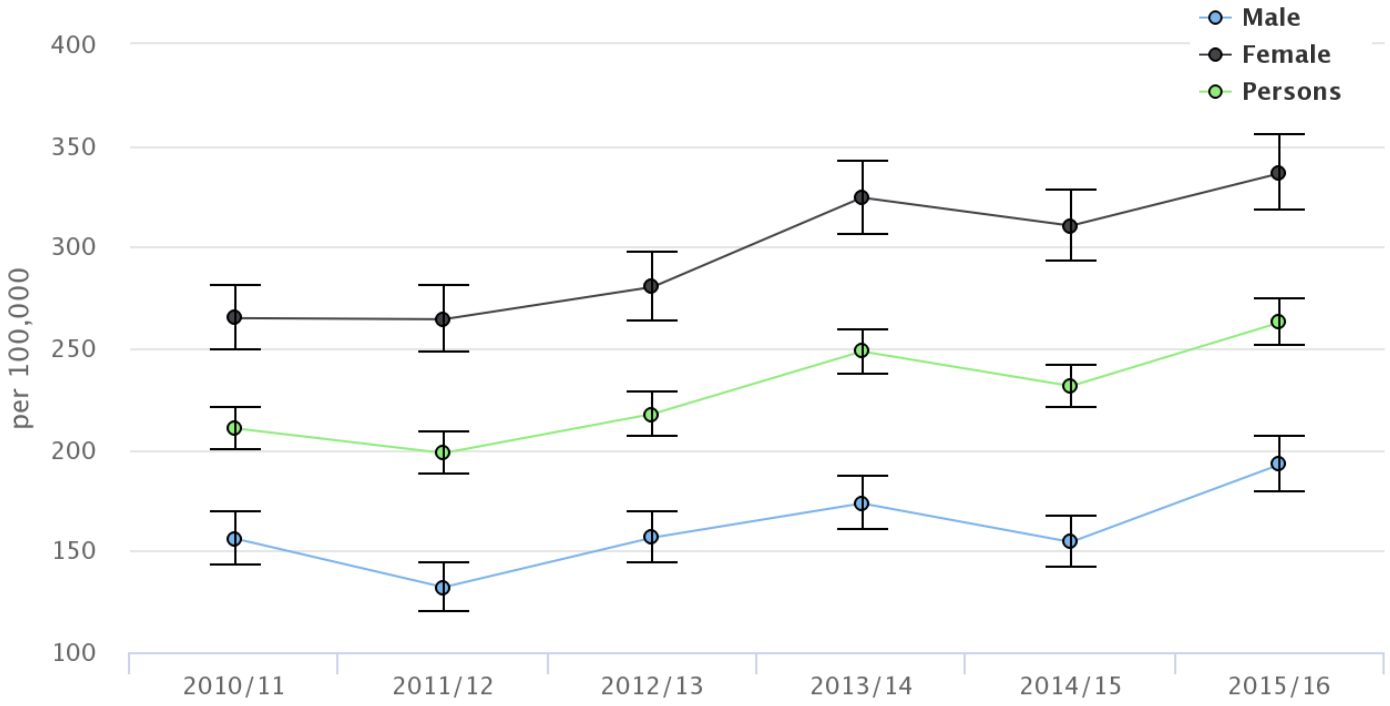
Table 3: Directly age and sex standardised rate of emergency admissions to hospital for self-harm by sex in West Sussex local authorities (2015/16)

	Males			Females		
	Rate	95% Confidence Interval		Rate	95% Confidence Interval	
	(DSR per 100,000)	DSR lower	DSR upper	(DSR per 100,000)	DSR lower	DSR upper
Adur	240.0	164.2	305.3	469.4	392.1	557.3
Arun	216.3	172.7	255.3	366.3	322.2	414.7
Chichester	156.5	103.8	195.1	412.6	358.7	472.2
Crawley	183.0	137.0	222.1	334.7	288.1	386.6
Horsham	163.2	125.1	200.3	262.1	223.5	305.4
Mid Sussex	169.9	134.7	204.8	233.6	198.0	273.6
Worthing	255.0	202.9	303.6	387.4	334.9	445.8
West Sussex	192.7	174.7	207.2	336.3	318.3	355.1
England	147.1	145.7	148.6	247.8	246.0	249.7

Source: HES local level analysis

The gap between the sexes in admission rates for self-harm has been widening over time (Figure 4). This follows a similar pattern to the national trend.

Figure 4: Emergency hospital admissions for intentional self-harm in West Sussex – partitioned by sex (2010/11 to 2015/16)



Source: PHE fingertips – inequalities tool – data partitioned by sex

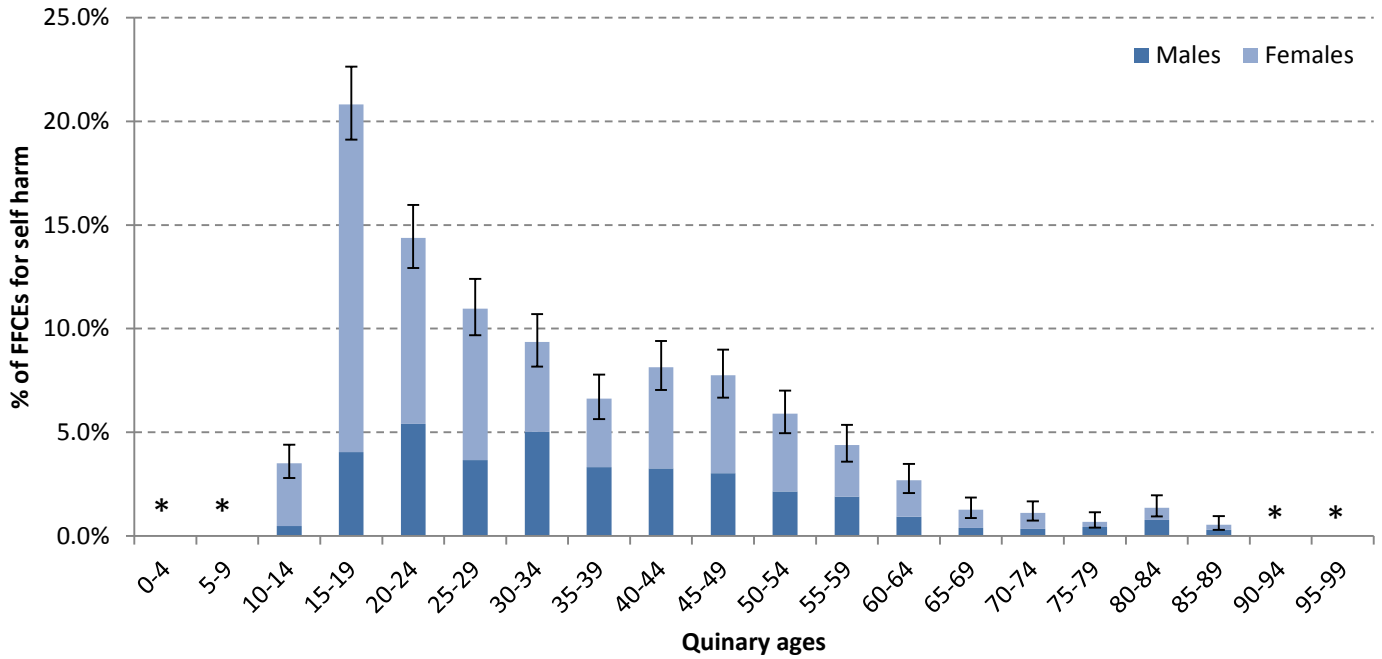
This difference between sexes is most pronounced at younger ages – 74.3% of admissions for self-harm among 10-24 year olds were female in West Sussex (2015/16).

Table 4: Number and directly age-sex standardised rate of emergency admissions (first FCEs) to hospital where self-harm was the recorded cause in West Sussex; persons aged 10-24 by sex (2015/16)

2015/16	Number of First Finished Consultant Episodes	Mid-Year Population Estimate	Rate (DSR per 100,000)	95% Confidence Interval	
				DSR lower	DSR upper
Males	204	67,606	317.6	244.8	364.6
Females	590	63,235	929.9	856.0	1,008.4
Total	794	130,841	623.7	580.9	668.9

Source: local level analysis of HES 2015/16

Figure 5: Proportion of first-finished consultant episodes (FCEs) to hospital in an emergency for self-harm in West Sussex by 5-year age groups (2015/16)



Note. * indicates where data has been suppressed due to small counts (five or fewer)

5.1.4 Cause of admission

In 2015/16, the majority of emergency admissions for self-harm (all ages) were due to intentional self-poisoning (ICD 10 codes X60-X69 – 87.2%). Specifically, intentional self-poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics (X60) and intentional self-poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified (X61) accounted for 40.0% and 29.4% of self-harm emergency admissions respectively. Intentional self-harm by sharp object (X78) accounted for a further 9.5% of all emergency self-harm admissions.

Table 5: Top 5 causes (ICD 10 codes) of emergency hospital admissions for self-harm, 2015/16

Cause code	Description	Count	Proportion of total
X60	Intentional self-poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics	820	40.0%
X61	Intentional self-poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified	603	29.4%
X78	Intentional self-harm by sharp object	194	9.5%
X62	Intentional self-poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified	155	7.6%
X64	Intentional self-poisoning by and exposure to other and unspecified drugs, medicaments and biological substances	130	6.3%
	All other cause codes (X63, X65 – X77, X79 – X84)	149	7.3%

Source: local analysis of HES data

5.1.5 Recurrent admissions for self-harm (2014/15 and 2015/16 pooled)

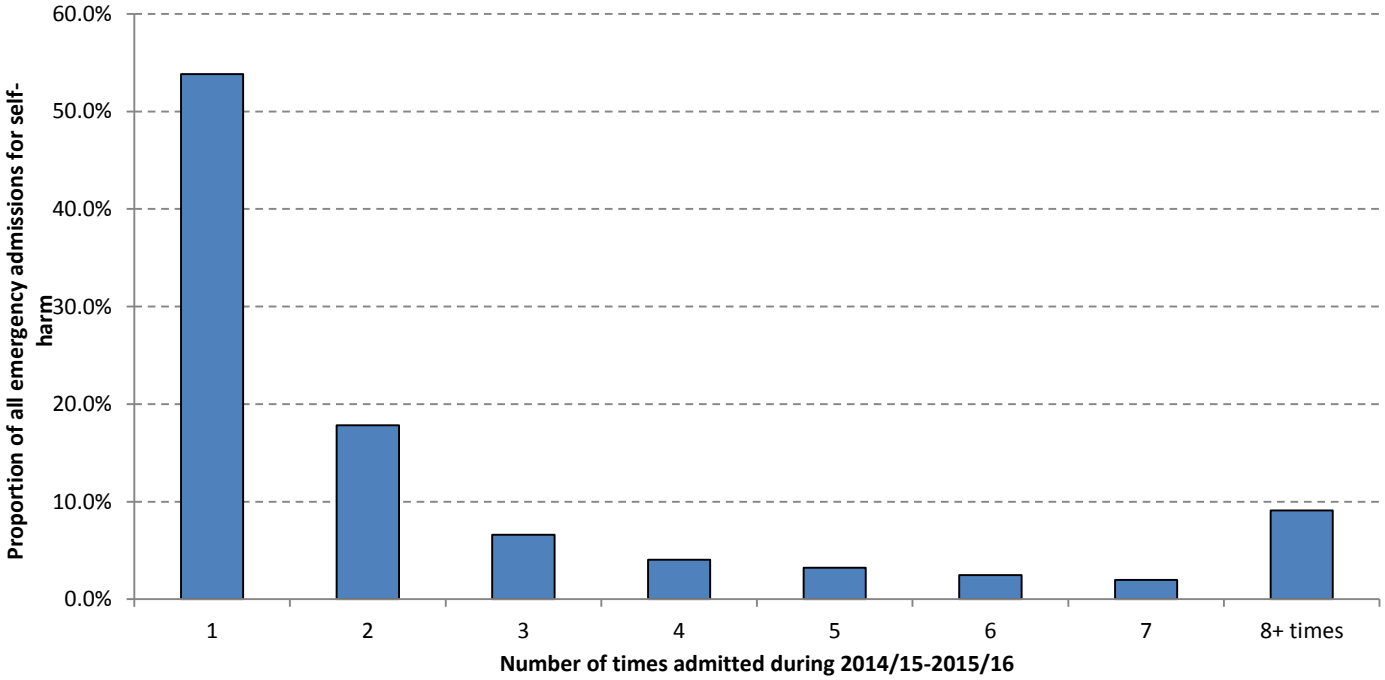
Repetition of self-harm is common, and is a significant risk factor for suicide[x] (- see West Sussex Suicide Audit 2017 for further information[xi]). The cost of self-harm on the individual and society increases with repeat episodes. Assessment of frequency forms part of the NICE guidance for self-harm[xii] and specific suicide prevention strategies should be targeted at this high-risk group.

During 2014/15 and 2015/16, there were 3,861 emergency hospital admissions for self-harm in West Sussex. Of these, 46.2% (N = 1,783) were multiple admissions (i.e. the same patient admitted twice or more within the 2 years).

In 2014/15 and 2015/16, 2,625 patients accounted for the 3,861 emergency hospital admissions for self-harm in West Sussex. The majority (79.2%) of patients were admitted to hospital for self-harm once during the two year period. However, 547 patients were admitted to hospital for self-harm on multiple occasions, accounting for a disproportionately high amount (46.2%) of the emergency admissions for self-harm in the county. Seventy-nine patients were admitted to hospital 5 times or more during 2014/15 and 2015/16. Whilst this group constitutes only 3% of all patients admitted for self-harm during this period, they accounted for 17.7% of all self-harm admissions in West Sussex.

These figures are likely to underestimate the true nature of recurrent self-harm, as it relates to those instances that are severe enough to warrant hospital admission rather than all self-harm events.

Figure 6: Number of emergency admissions to hospital for self-harm per patient (2014/15-2015/16)



5.1.6 Discharge destination (2015/16)

Discharge destination is coded in HES. This data shows the destination of discharge following an **emergency admission** for self-harm during 2015/16. Note that this does not take into account events that may have occurred during the hospital spell (i.e. there may have been multiple episodes of care following initial self-harm admission).

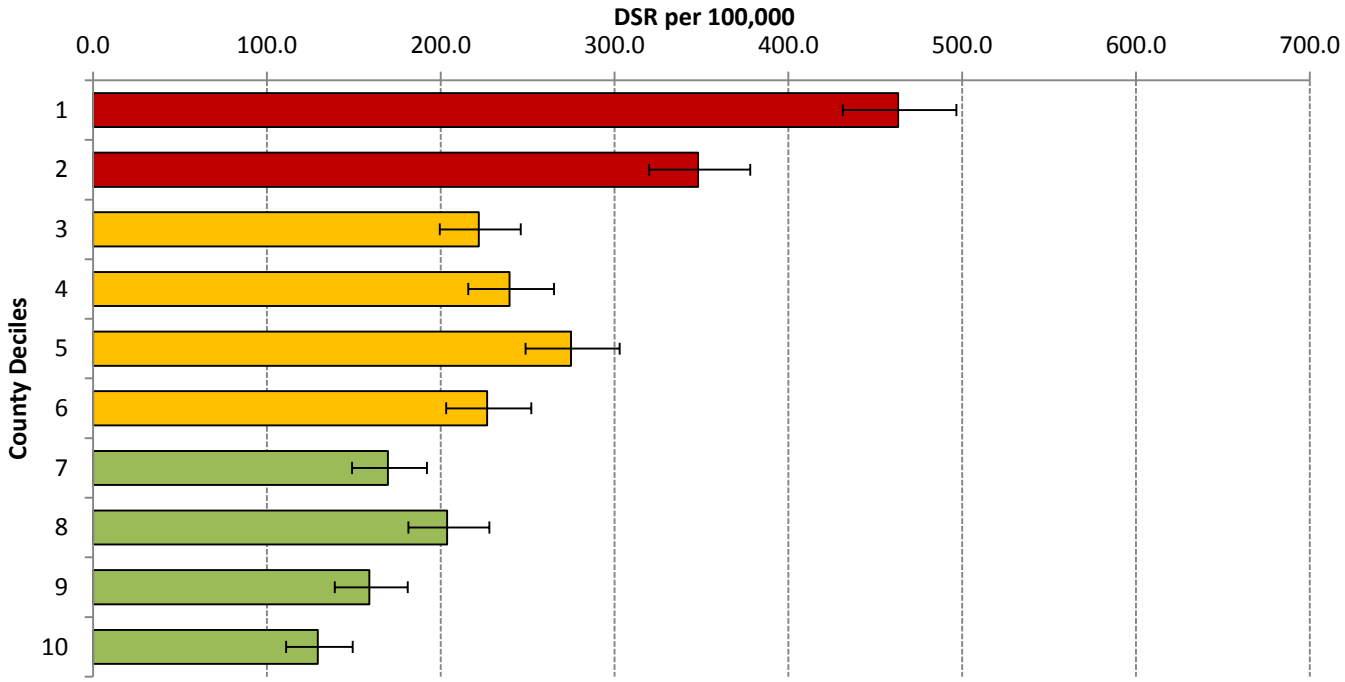
The majority (86.5%) of patients were discharged to their usual place of residence (including no fixed abode) following an emergency admission for self-harm in West Sussex during 2015/16. A further 7.9% were transferred to a ward for patients who are mentally ill or have learning disabilities, or a ward for general patients or the younger physically disabled. Three per cent of patients were discharged to a temporary place of residence (such as a hotel or residential educational establishment). All remaining admissions (2.5% of admissions) were discharged to a variety of locations (e.g. psychiatric unit, nursing or residential care, legal establishments) or were occasions where the patient died.

5.1.7 Deprivation

Figure 7 shows age-sex standardised emergency admission rates for self-harm by deprivation deciles in West Sussex. For this analysis, the Lower Super Output Areas (LSOAs) in West Sussex are grouped into deprivation deciles according to the Index of Multiple Deprivation (IMD) 2015 scores. Rates are then calculated using the number of admissions for self-harm in each decile in West Sussex, and the size of the resident population (Mid-year estimate 2014 and 2015). Rates are stratified by age and sex and standardised to the European Standard Population 2013.

Figure 7 shows that the age-sex standardised rate of admissions for self-harm is greater for residents living in the most deprived 10% of neighbourhoods in West Sussex. The relative ratio between the most and least deprived neighbourhoods in West Sussex (3.59) suggests that people resident in the most deprived decile have more than 3 ½ times the rate of admissions for self-harm than the most affluent group.

Figure 7: Directly age and sex standardised rate of emergency hospital admissions for self-harm in West Sussex during 2014/15 and 2015/16 by countywide IMD 2015 deprivation deciles (1 = most deprived, 10 = least deprived)



Source: Hospital Episode Statistics 2014/15 and 2015/16. Mid-year estimates 2014 and 2015. Standardised to the European Standard Population 2013. Colours relate to comparisons with West Sussex average. Red = significantly higher, amber = no difference, green = significantly lower.

Table 6: Directly age and sex standardised rates of emergency hospital admissions for self-harm in West Sussex during 2014/15 to 2015/16 by countywide Index of Deprivation (IMD 2015) deciles

IMD 2015 county deciles	Emergency admissions for self-harm (2014/15 and 2015/16)	Rate (DSR per 100,000)	95% Confidence Interval	
			DSR lower	DSR upper
1	793	463.2	431.3	496.8
2	568	348.2	320.0	378.1
3	360	221.9	199.6	246.2
4	377	239.7	215.9	265.3
5	414	274.9	248.8	302.9
6	349	226.7	203.1	252.2
7	259	169.5	149.0	192.0
8	311	203.8	181.4	228.0
9	238	159.0	139.0	181.0
10	192	129.2	111.1	149.4
	3,861	248.4	240.6	256.4

Source: Hospital Episode Statistics 2014/15 and 2015/16.

6 Appendices

6.1 ICD10 Codes for Self-Harm:

X60 Intentional self-poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
X61 Intentional self-poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified
X62 Intentional self-poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified
X63 Intentional self-poisoning by and exposure to other drugs acting on the autonomic nervous system
X64 Intentional self-poisoning by and exposure to other and unspecified drugs, medicaments and biological substances
X65 Intentional self-poisoning by and exposure to alcohol
X66 Intentional self-poisoning by and exposure to organic solvents and halogenated hydrocarbons and their vapours
X67 Intentional self-poisoning by and exposure to other gases and vapours
X68 Intentional self-poisoning by and exposure to pesticides
X69 Intentional self-poisoning by and exposure to other and unspecified chemicals and noxious substances
X70 Intentional self-harm by hanging, strangulation and suffocation
X71 Intentional self-harm by drowning and submersion
X72 Intentional self-harm by handgun discharge
X73 Intentional self-harm by rifle, shotgun and larger firearm discharge
X74 Intentional self-harm by other and unspecified firearm discharge
X75 Intentional self-harm by explosive material
X76 Intentional self-harm by smoke, fire and flames
X77 Intentional self-harm by steam, hot vapours and hot objects
X78 Intentional self-harm by sharp object
X79 Intentional self-harm by blunt object
X80 Intentional self-harm by jumping from a high place
X81 Intentional self-harm by jumping or lying before moving object
X82 Intentional self-harm by crashing of motor vehicle
X83 Intentional self-harm by other specified means
X84 Intentional self-harm by unspecified means

7 Endnotes

[i] NICE Quality Standard QS34 https://www.nice.org.uk/guidance/qs34

[ii] Bresin, K., & Schoenleber, M. (2015). Gender differences in the prevalence of non-suicidal self-injury: A meta-analysis. *Clinical Psychology Review, 38,* 55-64, doi: 10.1016/j.cpr.2015.02.009

[iii] Hawton K., & Harriss, L. (2008). The changing gender ratio in occurrence of deliberate self-harm across the life-cycle. *Crisis, 29*(1), 4-10, DOI: 10.1027/0227-5910.29.1.4

[iv] Hawton, K., Rodham, K., Evans, E., & Weatherall, R. (2002) Deliberate self-harm in adolescents: self-report survey in schools in England. *British Medical Journal 325,* 115-129.

[v] Bresin, K., & Schoenleber, M. (2015). Gender differences in the prevalence of non-suicidal self-injury: A meta-analysis. *Clinical Psychology Review, 38,* 55-64, doi: 10.1016/j.cpr.2015.02.009

[vi] Hawton, K., Linsell, L., Adeniji, T., Sariaslan, A., & Fazel, S. (2014). Self-harm in prisons in England and Wales: an epidemiological study of prevalence, risk factors, clustering, and subsequent suicide. The Lancet, 383(9923), 1147-1154. http://iapdeathsincustody.independent.gov.uk/wp-content/uploads/2014/01/Identifying-monitoring-and-managing-prisoners-at-risk-of-self-harmsuicide-in-England-and-Wales.pdf

[vii] King, M., Semlyen, J., Tai, S. S., Killaspy, H., Osborn, D., Popelyuk, D., & Nazareth, I. (2008). A systematic review of mental disorder, suicide, and deliberate self harm in lesbian, gay and bisexual people. BMC psychiatry, 8(1), 70.

[viii] Bhui, K., McKenzie, K., & Rasul, F. (2007). Rates, risk factors and methods of self-harm among minority ethnic groups in the UK: a systematic review. *BMC Public Health, 7*(336), DOI: 10.1186/1471-2458-7-336

[ix] PHE – Indicator 16: Emergency Hospital Admissions for Intentional Self-harm

[x] Zahl, D. L., & Hawton, K. (2004). Repetition of deliberate self-harm and subsequent suicide risk: long-term follow-up study of 11,583 patients. *The British Journal of Psychiatry, 185 (1),* 70-75. Doi: 10.1192/bjp.185.1.70

[xi] West Sussex Suicide Audit 2017 - http://jsna.westsussex.gov.uk/west-sussex-suicide-audit-2017/

[xii] NICE Clinical Guidance (CG133). Self-harm in over 8s: long-term management. https://www.nice.org.uk/guidance/CG133/chapter/Key-priorities-for-implementation