Overview

This is an ad hoc statistical bulletin providing information on the number and rate of UK Armed Forces personnel who had at least one episode of Deliberate Self Harm (DSH) recorded between 2010/11 and 2017/18 on MOD held systems.

In 2014 and 2016, High Court judges ordered new inquests into the deaths of two soldiers at Deepcut Barracks in 1995. Previous releases of this bulletin were developed to enable the provision of data to the Coroner’s Inquests and to ensure the public has equal access to the information and supports the MOD’s commitment to release information where possible. This latest bulletin provides updated DSH information for the period 2010/11 to 2017/18, following a request from Coroner after the reopening of another inquest into the death of a soldier in 2001 at Deepcut Barracks.

The current measure of DSH in the UK Armed Forces is based on the initial notification of casualty system (NOTICAS), an administrative system used to inform chain of command of casualties and primary care data, as captured on the Defence Medical Information Capability Programme (DMICP). As it is not currently possible to identify individual episodes of self harm from continuation of care for a previous episode, the methodology used in this bulletin counts each individual with a self harm record once per year to reflect the number of personnel who self harm in the Armed Forces. It is therefore possible that an individual may have a DSH record in February 2016 and in April 2016 where the April record is a continuation of care for the February event. However, the individual would be counted both in 2015/16 and 2016/17 totals.
Results

Table 1 presents the number and rate of UK Armed Forces personnel who had at least one DSH event recorded over the whole time period by demographics and year.

The overall rate of DSH among UK Armed Forces personnel remains low at 3.1 per 1,000 personnel (0.3% of all UK military personnel) in 2017/18, rising from a rate of 2.2 per 1,000 in 2010/11. This equates to an increase of 1 person per 1,000 personnel over the eight year period. It is not known if this is a true rise in DSH or improved reporting. However, this increase is in line with that seen in mental health referrals for UK Armed Forces personnel to a specialist clinician at a MOD Department of Community Mental Health (DCMH).

The UK Armed Forces population at highest risk of DSH between 2010/11 and 2017/18 were:
- Army personnel
- Females
- Other ranks
- Personnel aged under 25
- Untrained personnel (in seven of the eight years presented)

The risk groups for DSH in the UK Armed Forces were similar to the general population, where females and younger age groups were found to be at greatest risk of presentation at a hospital with a self-harm episode\(^b\). This finding is also in line with literature available on the general population where females are more likely to present with mental health problems compared to males. It is suggested this is because females are likely to have more interactions with health professionals than males\(^c\).

There are known difficulties in accurately capturing DSH episodes common to general and military populations due to the associated stigma in reporting and because consequences of self-harm can be managed by an individual at home and may not be reported to a medical professional\(^d\). In addition, UK Armed Forces personnel may report to an NHS Accident and Emergency facility following a DSH episode and may not come to the attention of the military primary healthcare community or the Chain of Command.

For the reasons stated above, comparisons of UK Armed Forces DSH rates with the UK general population are difficult. What evidence there is suggests the military population appears healthier with a lower lifetime prevalence of attempted suicide and self-harm, within the range of general population estimates\(^e\).

<table>
<thead>
<tr>
<th>Definition of Rates</th>
<th>Understanding Rates results</th>
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</thead>
<tbody>
<tr>
<td>Rates enable comparisons between groups and over time, taking account of the number of personnel in a group (personnel at risk) at a particular point in time. The number of events (i.e. DSH) is divided by the number of personnel at risk and multiplied by 1,000 to calculate the rate.</td>
<td>Whilst the total number of personnel with a DSH event has remained relatively stable over the period since 2010/11, the decrease in the size of the population at risk has resulted in an increase in the overall rate.</td>
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</tbody>
</table>

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\(^a\) DSH rates are represented per 1,000 personnel at risk due to the small number of DSH records per year.


<table>
<thead>
<tr>
<th>Rank</th>
<th>Untrained(^d)</th>
<th>Trained</th>
<th>RAF</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
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<tr>
<td></td>
<td>n</td>
<td>rate 95% CI</td>
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<td>&lt; 20</td>
<td>49</td>
<td>0.7 (0.1 - 1.0)</td>
<td>73</td>
<td>0.7 (0.2 - 1.2)</td>
<td>50</td>
<td>0.7 (0.1 - 1.0)</td>
<td>76</td>
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<td>20-24</td>
<td>19</td>
<td>0.7 (0.3 - 1.3)</td>
<td>36</td>
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<td>40-44</td>
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<td>45+</td>
<td>3</td>
<td>0.7 (0.3 - 1.3)</td>
<td>4</td>
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Source: Initial NOTICAS and DMICP
1. Individuals with a self harm record were counted once per year (see Methodology).
2. Rates are based on the calculation of the absolute number and are presented to 1 decimal place.
3. Sub-group totals do not always sum to the overall total as a number of records had missing demographic data at the time of the incident.
4. Naval Service includes Royal Navy and Royal Marines.
5. Untrained personnel include those in Phase 1 and Phase 2 training (see Data Sources).
\(^d\)\(^r\) denotes where previously published figures have been revised.
\(^\sim\)\(^d\)\(^r\) denotes where data has been suppressed in accordance with JSP 200.
Figure 1: UK Armed Forces Personnel, incidents of DSH\(^1\) by Service\(^2\), rates per 1,000 personnel at risk per annum.
2010/11 to 2017/18

Army personnel had significantly higher rates of DSH than the other Services in each of the eight years presented. There was no significant difference in rates between Naval Service and RAF personnel.

Source: Initial NOTICAS and DMICP
1. Individuals with a self harm record were counted once per year
2. Naval Service includes Royal Navy and Royal Marines

Figure 2: UK Armed Forces Personnel, incidents of DSH\(^1\) by Gender, rates per 1,000 personnel at risk per annum.
2010/11 to 2017/18

Females had significantly higher rates of DSH than males in each of the eight years presented.

Source: Initial NOTICAS and DMICP
1. Individuals with a self harm record were counted once per year
Revisions
Defence Statistics have found that incorrect information was previously published on the number and rate of DSH among UK Armed Forces personnel for 2011/12, 2013/14, 2015/16 and 2016/17. After reviewing records it was found that some of the incidences reported as DSH resulted in death and should therefore be classed as suicide. The definition for DSH is a deliberate intent to inflict damage or alter oneself which does not result in death and therefore a suicide is not a DSH incident. This was due to a human error when processing the data. Also, some changes within the demographics data has occurred since the previous publication where demographic information was missing for some records, but has now been found. Any changes to previously published data have been denoted by “r”. The revisions did not result in any significant change and there has been no impact on the overall findings of the bulletin.

Limitations
There are known difficulties in accurately capturing DSH episodes common to both the UK general population and military populations. The reporting of DSH is dependent on when the DSH is identified and brought to the attention of the appropriate parties either by the individual themselves seeking help or if discovered by a third party. Potential barriers to seeking care include:
- The associated stigma relating to DSH
- The mechanism they use to self-harm some of which may not be visible
- It may be possible for the individual to treat themselves at home (for example cuts).
Information on numbers and rates of DSH in the whole UK population is not available, thus any comparisons between the UK military and civilians has been based on small location based studies.

Data limitations:
As it is not currently possible to identify individual episodes of self harm from continuation of care for a previous episode, the methodology used in this bulletin counts each individual with a self harm record once per year to reflect the number of personnel who self harm in the Armed Forces. This is a more accurate methodology than was used in the first bulletin released in September 2016 whereby all Service personnel who had a DSH event recorded from 2009 onwards were counted once over the whole time period presented. Based on the previous methodology, personnel were treated as having a single event, however we know that some individuals may have subsequent self harm episodes. Therefore, the information presented in this bulletin is not comparable to that first release.

DMICP data was sourced using read codes from the data warehouse where the read code indicated Deliberate Self Harm. Information entered using free text has not been included as the information is not held in the central data warehouse; therefore the figures provided are a minimum.

The NOTICAS data relies on either a DSH tick box on the form being completed or via a free text search of the comments section, thus the figures provided are a minimum.

Background notes
This ad hoc statistical bulletin has been released in response to a request from the Coroner of the reopened inquiry into the death of a soldier at Deepcut Barracks in 2001, requesting information on DSH in the UK Armed Forces, in particular among Army personnel in comparison with the UK general population.

This statistical bulletin ensures MOD is open and transparent about the methodology and quality of any statistics and that equal access is given to all, as required by the Code of Practice for Official Statistics.

Care management
Assessment and care management within the Armed Forces for personnel experiencing mental health problems is available at three levels:
- Primary Health Care (PHC), by the patient’s own Medical Officer (MO).
- Through specialists in military Departments of Community Mental Health (DCMH).
- In hospitals, either the NHS or the contracted In-Patient Service Provider (ISP).

The level of care a patient may require is determined by a number of factors, including the severity of symptoms and the degree of risk posed by the patient's current condition.

Data used in this response covers all aspects of the care management pathway where entered onto NOTICAS and/or DMICP.

Data sources

*Initial Notification of Casualty (NOTICAS)*
Notification of Casualty (or "NOTICAS") is the name for the formalised system of reporting casualties within the UK Armed Forces. The NOTICAS reports raised for casualties contain information on how seriously medical staff judge their condition to be. They are not strictly medical categories but are designed to give an indication of the severity of the injury or illness to inform what the individual’s next of kin are told.

Initial NOTICAS casualty reporting system data was used in this bulletin as it covers incidents where personnel have been admitted to an NHS Emergency Department and where the next of kin has been informed.

Information supplied by the Defence Business Services, Knowledge and Information Management Information Centre of Excellence (DBS KI MICOE) highlighted incidents where the DSH box was ticked. In addition to these, NOTICAS incidents where a free text search of the comments section highlighted it was a DSH related incident was also included. Free text search included the words ‘Deliberate’, ‘Self Harm’, Deliberate Self Harm’ and ‘DSH’.

**Defence Medical Information Capability Program (DMICP)**

DMICP is the MOD electronic integrated primary health care record for UK Armed Forces personnel. DMICP was rolled out in 2007 and legacy medical data for currently serving personnel was migrated across during rollout. In April 2013, DMICP templates began to capture detailed information about the DSH event; prior to this there were no means of identifying separate DSH events/episodes among personnel. However, as not all DSH related read codes were entered in the DSH template accurately, identifying episodes of DSH is still not possible.

Primary care data, as captured on DMICP were used to compile the response where the following read codes were entered; DMS4691, DMS4692, DMS4693, DMS4698, DMS4707, DMS4708, DMS4710, DMS4711, DMS4713, DMS4714, DMS4716, DMS4717, DMS4719, DMS4720, DMS4722, DMS4723, DMS4725, DMS4726, DMS4729, EMISCSE4TK-1, TK-2, TK-4, TK-5, TK60, TK601, TRIQQIN7, U2, U200, U200-1, U200-2, U201U202-1, U204-3, U208, U20B, U21, U2-1, U22, U2-3, U29, U290, U2B, U2C, U2D, U2E and U2y.

Please note if the DSH incident were recorded as free text only in the patient medical record the information does not transfer into the central data warehouse, thus was not available for analysis. It would require many hours of a clinicians time to review the patient records to code the information and thus make the information centrally available; in the timeframe required to provide the analysis, this was deemed to be disproportionate effort.

There has been no audit of the clinical accuracy of the DMICP data entered in the patient record and no validation of the patient record with data held in the data warehouse.

**Joint Personnel Administration System (JPA)**

JPA is the system used by the Armed Forces to deal with matters of pay, leave and other personnel administrative tasks. JPA replaced a number of single-Service IT systems and was implemented in April 2006 for RAF, November 2006 for Naval Service and April 2007 for Army.

The patient data from each data source were cross referenced with the JPA system for UK Armed Forces personnel. JPA is the source for demographic information on UK Armed Forces personnel and is used to gather information on a person’s service, rank, training status, gender and age.
Some demographic data i.e. rank and training status, was not available at the time of extraction. This primarily affected individuals who had a DSH code entered onto DMICP in the initial days of joining the UK Armed Forces.

Untrained personnel or ‘trainees’ in this report are those classified as under training or artificer candidate for Naval Service and Phase 1 and 2 training for Army and RAF. Trained personnel are defined as those who have completed both Phase 1 and 2 training.

**Methodology**

UK Armed Forces population used within this bulletin included regulars (including Gurkhas and Military Provost Guard Staff), mobilised reservists, Full Time Reserve Service personnel and Non-regular Permanent Staff and trained and untrained personnel.

This bulletin presents the total number of UK Armed Forces personnel with at least one DSH event recorded per year in the MOD primary care system (DMICP) and/or the casualty notification system (NOTICAS). The data excludes all personnel recorded with DSH ideation and/or thoughts of DSH but for whom no act of actual DSH was coded in the primary care record.

It is currently not possible from DMICP data held outside of the DSH template to identify individual DSH events from continuation of care for a previous episode. The methodology used, counts each individual with a self harm record once per financial year.

**Rates**

Rates enable comparisons between groups and over time, taking account of the number of personnel in a group (personnel at risk) at a particular point in time. The number of events (i.e. DSH) is divided by the number of personnel at risk and multiplied by 1,000 to calculate the rate.

In order to calculate the rates in this bulletin, an estimate of person at risk was required for the denominator. The estimate was calculated by using the average number of personnel serving in a 13 month period (e.g. the number of personnel serving at the first of every month between April 2017 and April 2018 divided by thirteen for FY 2017/18). This methodology for calculating the estimate was in line with the method used for the UK Armed Forces Mental Health Annual report.

In order to understand if a difference in rates was statistically significant, 95% confidence intervals were used. Statistical significance indicates the likelihood that a finding was not due to chance. The 95% confidence interval for a rate provides the range of values within which we expect to find the real value of the indicator under study, with a probability of 95%.

If two confidence intervals do not overlap, a comparable statistical test would indicate a statistically significant difference. The rates and confidence intervals presented have been rounded to 1 decimal place and therefore when small numbers are presented the rate may lie towards one end of the confidence interval instead of more centrally between the lower and upper confidence interval.

The small number in some of the sub-group analysis may result in wide confidence intervals in the corresponding rate. The impact of this is that the range in which we expect the true value of that statistic to lie is much larger, making it harder to interpret the true underlying trend.

**Glossary**

**Army** - the British Army consists of the General Staff and the deployable Field Army and the Regional Forces that support them, as well as Joint elements that work with the Royal Navy and Royal Air Force. Its primary task is to help defend the interests of the UK.

**Confidence Interval** - the 95% confidence interval for a rate provides the range of values within which we expect to find the real value of the indicator under study, with a probability of 95%.

**Deliberate Self Harm** - includes incidents of self-injury (SI) and self-poisoning within this bulletin. It excludes personnel who had thoughts of deliberate self-harm or suicidal ideation.

**Defence Medical Information Capability Programme (DMICP)** - the DMICP programme commenced during 2007 and comprises an integrated primary Health Record (iHR) for clinical use and a pseudo-anonymised central data warehouse.

**MOD Specialist Mental Health Services** - encompasses the delivery of care through MOD’s Department for Community Mental Health (DCMH) for outpatient care, and all admissions to the MOD’s in-patient care contractor. It does not cover mental health care for patients treated wholly in the primary care setting by GPs.

**New Case of DSH** - the measure counts all Service personnel with a DSH record once per year as it is not currently possible to identify individual episodes of self harm from continuation of care for a previous episode.

**NOTICAS** - Notification of Casualty (or "NOTICAS") is the name for the formalised system of reporting casualties within the UK Armed Forces.

**Officer** - a member of the Armed Forces holding the Queen’s Commission to lead and command elements of the forces. Officers form the middle and senior management of the Armed Forces. This includes ranks from Sub-Lt/2nd Lt/Pilot Officer up to Admiral of the Fleet/Field Marshal/Marshal of the Royal Air Force, but excludes Non-Commissioned Officers.

**Other Ranks** - members of the Royal Marines, Army and Royal Air Force who are not officers but Other Ranks include Non-Commissioned Officers.

**Read Codes** – Read codes are a coded thesaurus of clinical terms. They have been used in the NHS since 1985. It provides a standard vocabulary for clinicians to record patient findings and procedures in health and social care IT systems across primary and secondary care.

**Royal Air Force (RAF)** - the aerial defence force of the UK.

**Royal Marines (RM)** - sea-going soldiers who are part of the Naval Service. RM officer ranks were aligned with those of the Army on 1 July 1999.
Royal Navy (RN) – the sea-going defence forces of the UK but excludes the Royal Marines and the Royal Fleet Auxiliary Service (RFA).

UK Armed Forces population - defined as the number of serving UK Armed Forces personnel.

UK Armed Forces - full time Service personnel, including Nursing Services and Gurkhas, Naval activated Reservists, mobilised Reservists, Military Provost Guarding Service (MPGS), Non Regular Permanent Service (NRPS) and reservist personnel. Unless otherwise stated, includes trained and untrained personnel.

Further information

Symbols
~ In line with JSP 200 (April 2016) to ensure individuals are not inadvertently identified suppression methodology has been applied to reduce the risk of disclosure, numbers fewer than five have been suppressed and presented as ‘~’. Where there was only one cell in a row or column that was fewer than five, the next smallest number has also been suppressed so that numbers cannot simply be derived from totals.

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