

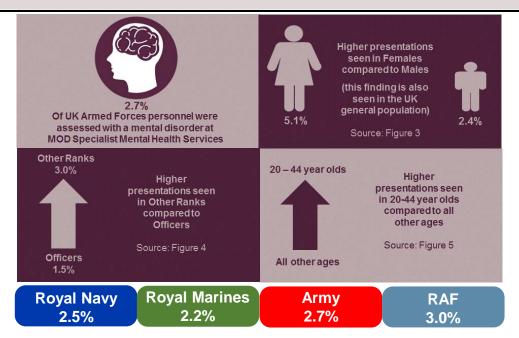
# UK Armed Forces Mental Health: Annual Summary & Trends Over Time, 2007/08 - 2018/19

Published 20 June 2019

This annual bulletin provides statistical information on mental health in the UK Armed Forces for the period 1 April 2007 to 31 March 2019. It summarises all initial assessments for a new episode of care of Service personnel at MOD Specialist Mental Health services (Departments of Community Mental Health (DCMH) for outpatient care and all admissions to the MOD's in-patient care contractor) by financial year.

This report presents twelve-year trend information on demographic groups at risk and comparisons to mental health in the UK population.

# **Key Points and Trends 2018/19**



Lower presentations seen among Royal Marines compared to the Army and RAF Source: Figure 2

The rate of mental disorder among UK Armed Forces personnel assessed at MOD Specialist Mental Health Services increased over time from 1.8% in 2007/08 to 3.2% in 2015/16 and remained around that level until 2017/18 (this represents approximately 3 in 100 personnel).

In 2018/19 there was a statistically significant decrease in the rate of mental disorder to **2.7%** of UK Armed Force personnel. Findings of significantly higher presentations in certain demographic groups remained broadly similar throughout the last twelve years (as presented in above graphic).

The rate of PTSD remains **low** at **0.2**%, which represents 2 in 1,000 personnel assessed with the disorder in 2018/19.

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Background Quality Report: <a href="https://www.gov.uk/government/statistics/mental-health-in-the-uk-armed-forces-background-quality-report">www.gov.uk/government/statistics/mental-health-in-the-uk-armed-forces-background-quality-report</a>

Would you like to be added to our contact list, so that we can inform you about updates to these statistics and consult you if we are thinking of making changes? You can subscribe to updates by emailing <a href="mailto:DefStrat-Stat-WDS-Pubs@mod.gov.uk">DefStrat-Stat-WDS-Pubs@mod.gov.uk</a>

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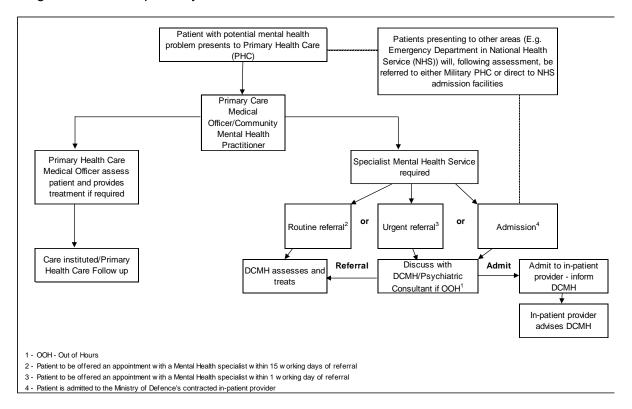
# Supplementary tables containing:

- all data presented in this publication
- figures presenting UK Armed Forces personnel PTSD by gender and Psychoactive Substance Misuse due to alcohol by gender.
- tables presenting UK Armed Forces personnel by assignment type Regular, Reservist and Other
- more information regarding each Service.

can be found at: https://www.gov.uk/government/collections/defence-mental-health-statistics-index

#### Introduction

- 1. Assessment and care-management within the UK Armed Forces for personnel experiencing mental health problems is available at three levels :
  - In Primary Health Care (PHC), by the patient's own Medical Officer (MO).
  - In the community through specialists in military Departments of Community Mental Health (DCMH).
  - In hospitals, either the NHS or the contracted In-Patient Service Provider (ISP).
- 2. 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. The following diagram shows the pathways into mental health services in the UK Armed Forces:



- 3. This report summarises all attendances for a new episode of care of Armed Forces personnel at MOD Specialist Mental Health services (MOD's DCMH for outpatient care, and all admissions to the MOD's in-patient care contractor) only. It therefore captures patients referred to the Specialist Mental Health Service and does not represent the totality of mental health problems in the UK Armed Forces as some patients can be treated wholly within the primary care setting by their GP or medical officer.
- 4. DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation Trust (SSSFT); UK based Service personnel from British Forces Germany are treated at Gilead IV hospital, Bielefield under a contract with Soldiers, Sailors, Airmen an Families Association (SSAFA) through the Limited Liability Partnership. When presenting inpatient data in this report, the data include returns from both contract providers.

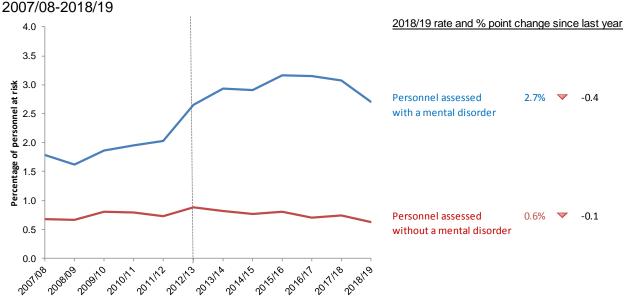
# 2.7%

UK Armed Forces personnel assessed with a mental disorder in 2018/19 at MOD Specialist Mental Health Services

**4** in **5** UK Armed Forces personnel seen at MOD Specialist Mental Health in 2018/19 were assessed with a mental disorder

5. UK Armed Forces personnel may access specialist mental health care as an outpatient at a MOD Department of Community Mental Health (DCMH) and/or as an in-patient at a MOD in-patient care provider. Clinician's record the patient's initial mental health assessment based on the presenting signs and symptoms. A number of patients are assessed by clinician's as having no specific and identifiable mental disorder.

Figure 1: UK Armed Forces personnel presenting at MOD Specialist Mental Health Services by initial assessment, percentage of personnel at risk<sup>1,2</sup>.



Source: DS Database and DMICP

- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71)
- 6. A rising trend was seen between 2007/08 and 2015/16 where the rate of UK Armed Forces personnel assessed with a mental disorder at MOD Specialist Mental Health Services rose from 1.8% to 3.2% and the rate then remained at this level until 2017/18. In the latest year, the rate fell to 2.7%, a statistically significant decrease. This represents approximately 3 in 100 UK Armed Forces personnel.
- 7. A possible explanation for the rise in the years up until 2015/16 may be the successful effect of campaigns run by the MOD to reduce stigma resulting in an increase in mental health awareness among UK Armed Forces personnel, Commanding Officers and clinician's in the primary care setting leading to greater detection rates and referrals to specialist care. The subsequent fall in rates of mental disorders seen at MOD Specialist Mental Health Services in 2018/19 may be the result of a change to the management of low risk patients with uncomplicated common mental health disorders. In accordance with NICE (National Institute Clinical Excellence) guidelines, these patients are now offered self-help and psychological interventions in Primary Care first before referral to MOD Specialist Mental Health Services. With more low risk patients being managed in primary care, initial evidence indicates reduced referral rates to MOD Specialist Mental Health Services.

8. Thus, the information presented in Figure 1 showed a reduction in referrals to MOD Specialist Mental Health Services in 2018/19 and may not necessarily mean overall rates of mental health in the UK Armed Forces have fallen, as some personnel with signs and symptoms of mental health may be treated solely within primary care.

Table 1: UK Armed Forces personnel presenting at MOD Specialist Mental Health Services by Service provider, initial assessment, numbers and percentage population at risk<sup>1,2,3,4</sup>. 2014/15-2018/19

	2014/15	2015/16	2016/17	2017/18	2018/19
Number of personnel	n	n	n	n	n
Personnel with an initial assessment with MOD Mental					
Health Services <sup>1</sup>	6,059	6,364	6,137	5,960	5,080
At a DCMH	5,943	6,255	6,023	5,846	4,987
At a MOD in-patient provider	305	292	271	263	268
Personnel assessed with a mental disorder <sup>2</sup>	4,858	5,147	5,083	4,886	4,214
Personnel assessed without a mental disorder <sup>2</sup>	1,274	1,300	1,133	1,175	962
Missing mental disorder information <sup>3</sup>	32	21	11	7	13
Percentage of personnel at risk.	%	%	%	%	%
Personnel with an initial assessment with MOD Mental					
Health Services <sup>1</sup>	3.6	3.9	3.8	3.7	3.3
At a DCMH	3.6	3.8	3.7	3.7	3.2
At a MOD in-patient provider	0.2	0.2	0.2	0.2	0.2
Personnel assessed with a mental disorder <sup>2</sup>	2.9	3.2	3.2	3.1	2.7
Personnel assessed without a mental disorder <sup>2</sup>	0.8	0.8	0.7	0.7	0.6
Missing mental disorder information <sup>3</sup>	0.0	0.0	0.0	0.0	0.0

- 9. The rate of mental disorder among UK Armed Forces personnel assessed within specialised psychiatric services (2.7%) was lower than the rate of **4.4%** within the UK general population who accessed secondary mental health services<sup>a</sup> in 2017/18<sup>1</sup> (latest data available).
- 10. Comparisons with the UK general population are difficult for a number of reasons. Due to the nature of the role UK Armed Forces personnel undertake, in particular access to weapons; a patient's medical officer may refer at an earlier stage to specialised mental health services compared to the UK general population. In addition, the source of the UK general population statistic for mental ill-health also covers services such as Adult Learning Disability, Autistic Spectrum and Children/ Young People services which are not relevant to the UK Armed Forces population (these services accounted for just 6% of all secondary mental health service usage in 2017/18).
- 11. The lower rates seen among UK Armed Forces personnel accessing specialist mental health services compared to the UK general population may be due to the structure within the military; tight

<sup>1.</sup> Please note, an individual may have had contact at both DCMH and In-patient provider.

<sup>2.</sup> Clinician's initial assessment based on presenting symptoms (paragraphs 66 and 67).

<sup>3.</sup> Initial diagnosis not available (See BQR)

<sup>4.</sup> Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71)

UK general population aged 16-59 years accessing NHS secondary mental health services in 2017/18 was used as a comparison against

UK Armed Forces personnel. Source: <a href="https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-bulletin/2017-18-annual-report">https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-bulletin/2017-18-annual-report</a>

unit cohesion plays a vital role in maintaining good mental health as well as helping to identify early signs of mental ill-health.

12. The rigorous selection of individuals into the UK Armed Forces may help to prevent those with more serious mental disorders joining the Services. In addition, UK Armed Forces personnel who have a mental disorder which prevents continued Service in the military environment may be considered for medical discharge, thus more severe cases of mental health requiring in-patient admission may not remain in the UK Armed Forces population; this is different to the UK general population.

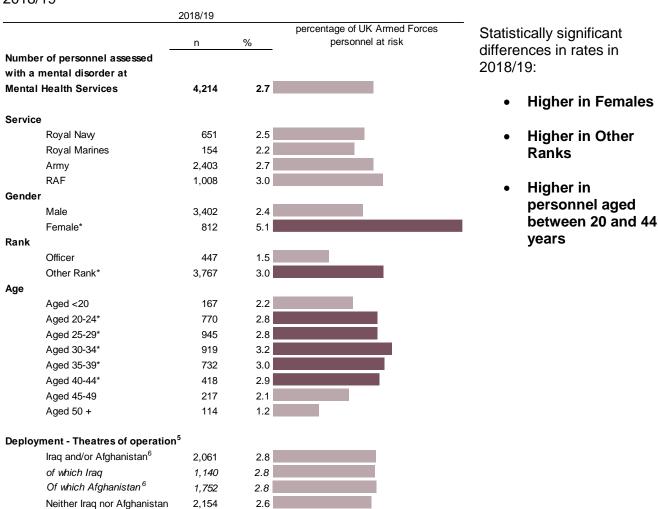
Higher presentations seen in:

Females
Other Rank

20 - 44 vear olds

13. Analysis in this section presents the number of UK Armed Forces personnel assessed with a mental health disorder at MOD Specialist Mental Health services by demographic groups: Service; Gender; Officer/Other Rank; Age Group and deployment status. Table 2 presents the findings for 2018/19 collectively.

Table 2: UK Armed Forces personnel assessed with a mental disorder at MOD Specialist Mental Health Services by demographics, number and percentage of personnel at risk<sup>1,2,3,4,5,6</sup>. 2018/19

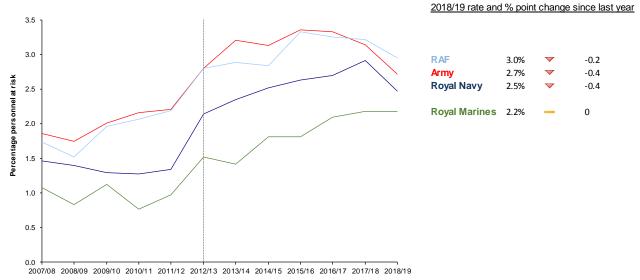


- 1. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71)
- 2. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- Numbers within demographic groups may not sum the total as personnel who have more than one episode of care in a year and change age group, rank or deployment status will be counted once in each sub-category.
- 4. '\*' denotes significantly higher rates to comparison group(s).
- 5. Deployment to the wider theatre of operation (see BQR)
- 6. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see BQR).

14. The higher rates of presentation among the demographic groups seen in Table 2 were broadly similar to those seen in previous years. Figures 2-5 present rates for personnel assessed with mental disorders among each demographic group since 2007/08 along with possible explanations for the differences observed.

#### Service

Figure 2: UK Armed Forces personnel assessed with a mental disorder at MOD Specialist Mental Health Services by Service, percentage of personnel at risk<sup>1,2,3</sup>. 2007/08 - 2018/19

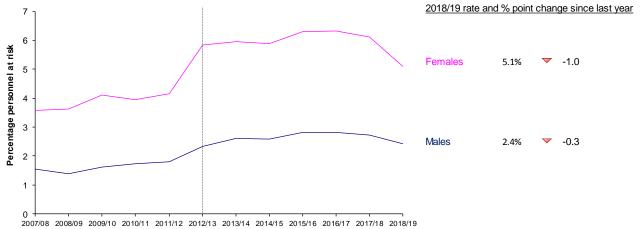


- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71)
- 3. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 15. There was a rising trend in rates of mental disorder seen at MOD Specialist Mental Health Services in each of the Services between 2007/08 and 2015/16 with rates falling in the latest year among Royal Navy, Army and RAF personnel. The fall in Royal Navy and Army rates in 2018/19 were statistically significant. The new mental health care pathway model which follows NICE guidelines for treating low risk patients with uncomplicated common mental disorders in primary care first may be reducing referral rates to MOD Specialist Mental Health Services.
- 16. **Royal Marines had significantly lower rates** of mental ill health than the Army and RAF throughout the period presented. The Royal Marines undergo rigorous training to ensure only the 'elite' go forward as Royal Marines (thus the selection process removes those that may be more susceptible to mental health problems). The tight unit cohesion that exists amongst the elite forces further supports the 'healthy worker' effect (personal communication with Def Prof Mental Health) and may also influence the lower rates of mental ill health in this Service. In addition, high levels of preparedness may serve to lessen the impact of operational deployment experiences on mental ill health among the Royal Marines<sup>b</sup>.
- 17. Whilst Royal Marines had significantly lower rates of mental health compared to the other Services, there was a 102% rise in rates between 2007/08 and 2018/19, the highest rise across the Services. This rise may have been the result of MOD run campaigns aimed at reducing stigma throughout the period, including a specific Royal Marine initiative, Project REGAIN aimed at encouraging help seeking within the Service, introduced in January 2017.

#### Gender

Figure 3: UK Armed Forces personnel assessed with a mental disorder at MOD Specialist Mental Health Services by gender, percentage of personnel at risk<sup>1,2,3</sup>

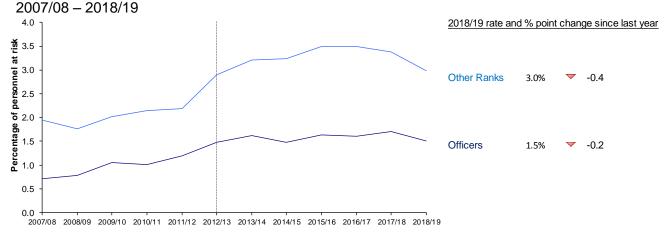
2007/08 - 2018/19



- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71)
- 3. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 18. Rates of mental disorders in **females were significantly higher than males** across all years presented (Figure 3). This finding was replicated in the civilian population where females were more likely to report mental ill health than males. A study following up the mental health of adults suggested that this is because females were likely to have more interactions with health professionals<sup>c</sup>. MOD has not investigated whether females in the UK Armed Forces have more interactions with health professionals than their male colleagues.
- 19. Whilst rates among females remain higher than males; there was a larger increase among the percentage of males with a mental disorder between 2007/08 and 2018/19 compared to females (56% and 43% respectively). The reasons for this are unclear however it is possible that increased mental health awareness is encouraging help seeking among groups who have previously not presented for help. A similar pattern was seen among the UK general population with higher increases in rates of mental health among males compared to females b,d.

#### Rank

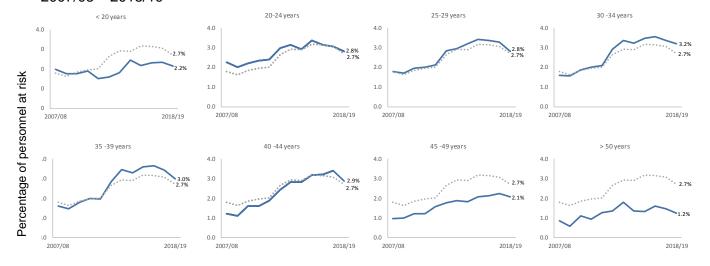
Figure 4: UK Armed Forces personnel assessed with a mental disorder at MOD Specialist Mental Health Services by Officer/Other Rank, percentage of personnel at risk<sup>1,2,3</sup>.



- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71).
- 3. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 20. Other Ranks had consistently higher rates of mental ill health compared to Officers in the UK Armed Forces for all years presented (Figure 4). The differences between Other Ranks and Officers may be due to educational and/or socio-economic background, where both higher educational attainment and higher socio-economic background are associated with lower levels of mental ill health disorder. Most Officers (except for those promoted from the Ranks) are recruited as graduates of the higher education system, whilst the majority of Other Ranks are recruited straight from school, particularly for the Army.
- 21. Whilst Other Ranks had consistently higher rates of mental ill health; Officers have seen a higher increase in the percentage of personnel who presented to MOD Specialist Mental Health Services compared to Other Ranks (114% and 53% respectively) over the time period 2007/08 to 2018/19. A possible explanation of the increase in presentations could be due to MOD's commitment to antistigma campaigns and an increase in mental health awareness among groups who historically have been more reluctant to seek help.

Age

Figure 5: UK Armed Forces personnel assessed with a mental disorder at MOD Specialist Mental Health Services by Age group, percentage of personnel at  $risk^{1,2}$  2007/08 - 2018/19



Overall proportion of mental disorders among UK Armed Forces personnel

Source: DS Database, DMICP, SSSFT and BFG

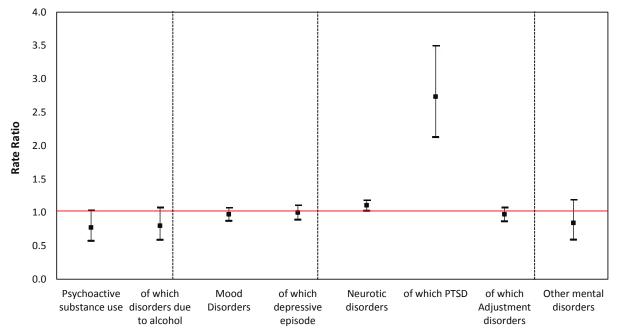
- 1. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71).
- 2. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 22. Rates of mental disorders were **highest among those aged between 20-44 years** compared to those aged under 20 years and 45 years and over (Figure 5). This differs to the civilian population where young people (16-19 years) had the higher presentation to secondary mental health services<sup>a</sup>. The reasons for the differences are unclear.
- 23. Several of the age groups saw an increase in the percentage of presentations which was greater than that seen in the UK Armed Forces as a whole (51%), for example personnel aged 40-44 years had a 137% increase in presentations to MOD Specialist Mental Health services in 2018/19 compared to the start of reporting in 2007/08. The reasons for this are unclear.

## Previous deployment

- 24. Previous releases of this official statistic have shown statistically significant higher rates of mental health disorders between 2013/14 and 2015/16 among UK Armed Forces personnel who were previously deployed to Iraq and/or Afghanistan compared to those who had not previously deployed there (see Figure 11 in supplementary web tables). Since 2015/16 there was no significant difference in the rates of mental health disorders between UK Armed Forces personnel who were previously deployed to Iraq and/or Afghanistan compared to those who had not previously deployed there. This comparison only includes deployment to Operation TELIC (Iraq), Operation HERRICK (Afghanistan) and Operation VERITAS (Afghanistan) and does not include deployment to recent operations to Operation SHADER (Iraq) and Operation TORAL (Afghanistan).
- 25. To investigate whether there were certain mental health disorders associated with deployment, rate ratios (RR) were calculated. The rate ratios provide a comparison of cases seen between personnel identified as having deployed to Iraq and/or Afghanistan and those who have not been identified as having deployed there. A rate ratio less than 1 indicates lower rates in those deployed than those not deployed, whereas a rate ratio greater than 1 indicates higher rates in those deployed than those not deployed. If the 95% confidence interval does not encompass the value 1.0, then this difference is statistically significant.

- 26. When looking at the specific mental disorders for those previously deployed to Iraq and/or Afghanistan, there were some statistically significant differences:
  - Rates of PTSD were higher in those who had previously deployed to Iraq and/or Afghanistan than those not deployed there (Figure 6). In 2018/19, there was an increased risk of 170% for PTSD for Service personnel previously deployed to Iraq and/or Afghanistan.

Figure 6: UK Armed Forces personnel seen at the MOD's DCMH's, for Iraq and/or Afghanistan by mental disorder. Rate Ratio, 95% Confidence Interval<sup>1,2</sup>, 2018/19



Source: DS Database and DMICP

1. Deployment to the wider theatre of operation (see BQR)

2. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see BQR).

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## Results: Trends in UK Armed Forces mental disorders at MOD DCMH 2007/08 - 2018/19

The most prevalent disorders were:

Adjustment Disorders

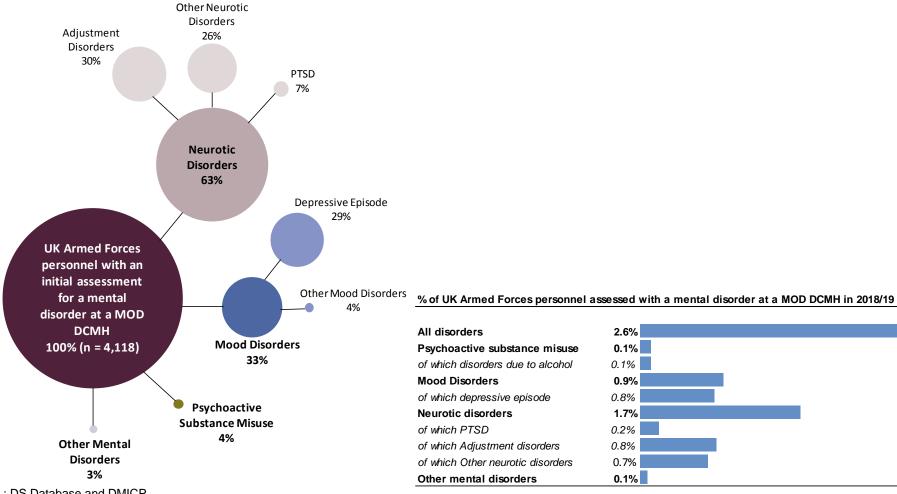
Depressive Episode
Other Neurotic Disorders

Rates of PTSD remain low at

0.2% of UK Armed Forces personnel

- 27. Clinician's at MOD Specialist Mental Health Services record the patient's initial mental health assessment based on the presenting signs and symptoms, categorizing to World Health Organisation's International Statistical Classification of Diseases and Health-Related Disorders 10th edition (ICD-10) mental disorders (more details can be found in the Glossary). A patient admitted to a MOD in-patient provider will be discharged to the care of a DCMH and therefore the data in this section presents the number of personnel assessed at a MOD DCMH by mental disorder.
- 28. **Neurotic Disorders** (Adjustment, PTSD and Other Neurotic Disorders) were the most prevalent mental disorders among UK Armed Forces personnel in 2018/19 (accounting for 1.7% of the population or approximately 2 in every 100 personnel), with Adjustment Disorders accounting for around a third of all mental disorders in the UK Armed Forces (Figure 7). Rates of Adjustment disorders were significantly higher than all other mental disorders in each year between 2007/08 and 2015/16 (Figure 8).
- 29. The finding that Neurotic Disorders were the most prevalent mental disorders among UK Armed Forces personnel is consistent with the UK general population. However, there were differences in the specific types of Neurotic Disorders most commonly seen within the UK Armed Forces and the UK general population. In the UK general population, Generalised Anxiety disorders, Obsessive Compulsive Disorder and Phobias were the most common Neurotic disorders<sup>d</sup>, whereas Adjustment disorder was the most common in the UK Armed Forces. Adjustment disorder is a short-term condition occurring when a person is unable to cope with or adjust to a particular source of stress such as a major life change, loss or event. The higher rates of Adjustment disorders seen in the UK Armed Forces compared to the UK general population may reflect the impact of Service life with routine postings every few years and operational tours. Another possible explanation is a clinician's diagnostic habit to assess UK Armed Forces personnel with a condition which is less prognostically serious (personal correspondence with DCA Psychiatry, 2014).
- 30. In 2018/19, Depressive Episodes accounted for 29% of all mental disorders in the UK Armed Forces (Figure 7). The second most prevalent mental disorder among UK Armed Forces personnel.
- 31. The proportion of initial assessments for PTSD and Psychoactive Substance Misuse in 2018/19 remained low at 7% and 4% of all mental disorders assessed at MOD Specialist Mental Health Services.

Figure 7: UK Armed Forces personnel mental disorders at initial assessment at MOD DCMH<sup>1,2,3,4</sup> 2018/19

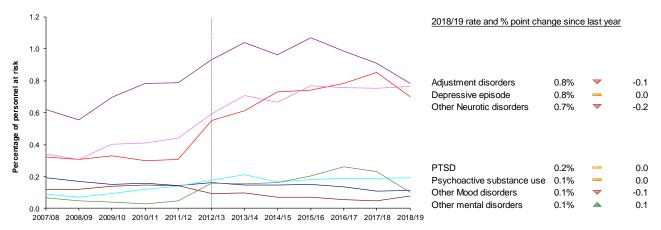


Source: DS Database and DMICP

- 1. Percentages in the graphic may not sum 100% due to some personnel presenting with more than one disorder and thus are counted within each disorder they have presented with.
- 2. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 3. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71)
- 4. The percentage of UK Armed Forces personnel assessed with a mental disorder differs from that presented in Table 1 as this only includes personnel assessed at a MOD DCMH in 2018/19 (See paragraph 27)

Figure 8: UK Armed Forces personnel mental disorders at initial assessment at MOD DCMH, percentage of personnel at risk<sup>1,2,3,4</sup>.

2007/08-2018/19

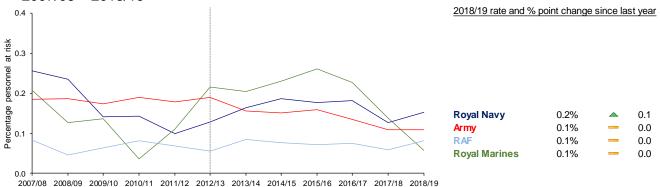


Source: DS Database and DMICP

- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71).
- 3. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 32. In 2018/19, the rate of Mood disorders, Adjustment disorders and Other Neurotic disorders fell from the previous year, in line with the overall rate of mental disorders in the UK Armed Forces. The fall in rates of Adjustment, Other Neurotic disorders and Other Mood disorders may be a result of the new care model introduced in 2018 which sees low risk patients with uncomplicated mental disorders being offered self-help and psychosocial interventions in primary care before referral to MOD Specialist Mental Health Services. Initial indications are that this has resulted in a reduction in referrals for patients with these mental disorders. The rate of Other Mental disorders (which includes Organic mental disorders, Schizophrenia, Eating disorders, Personality disorders, Sleep disorders and Attention deficit hyperactivity disorder (ADHD)) was the only disorder to increase. However, the numbers assessed with these disorders were low, so caution should be taken when interpreting these findings.
- 33. Despite media attention focusing on prevalence of **PTSD** and **Psychoactive substance misuse due to alcohol** in the UK Armed Forces, Figure 8 shows that these disorders remain **low** with around 2 in 1,000 Armed Forces personnel assessed with PTSD (0.2%) and 1 in 1,000 personnel assessed with Psychoactive substance misuse due to alcohol (0.1%). Figure 10 presents the differences in the percentage of UK Armed Forces personnel within each Service assessed with PTSD.
- 34. Rates of Psychoactive substance misuse due to alcohol showed a decline in presentations since reporting began in 2007/08 (-42%). Defence Statistics will continue to monitor factors that may be influencing this change. Differences in the percentage of UK Armed Forces personnel within each Service assessed with psychoactive substance misuse due to alcohol are shown in Figure 9.

Psychoactive Substance Misuse due to Alcohol

Figure 9: UK Armed Forces personnel with an initial assessment at the MOD's DCMH, for psychoactive substance misuse due to alcohol, by Service, percentage personnel at risk<sup>1,2,3</sup>. 2007/08 - 2018/19



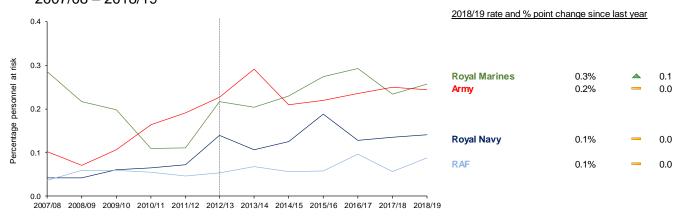
Source: DS Database and DMICP

- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71).
- 3. Excludes personnel where Initial diagnosis was not supplied (See BQR)

35. Despite the overall low number of initial assessments for Psychoactive Substance Misuse for Alcohol, there were differences between the Services over the period presented. Rates for alcohol misuse have remained stable among Royal Navy, Army and RAF personnel since 2007/08, however a different pattern was seen among the Royal Marines, with increasing rates between 2010/11 and 2015/16 and then decreasing rates between 2015/16 and 2018/19. Please note, the number of Royal Marines assessed with this disorder remain small (less than five in 2018/19), small numbers can lead to a larger percentage change and so caution should be taken in interpreting these findings. In 2018/19, the rates of Psychoactive Substance Misuse for Alcohol are similar for each Service at around 0.1% (1 in a 1,000 personnel).

Post-Traumatic Stress Disorder (PTSD)

Figure 10: UK Armed Forces personnel with an initial assessment at the MOD's DCMH, for PTSD by Service, percentage personnel at risk $^{1,2,3}$ . 2007/08 - 2018/19



Source: DS Database and DMICP

- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71).
- 3. Excludes personnel where Initial diagnosis was not supplied (See BQR)

36. The Army and Royal Marines had the highest proportion of personnel assessed with PTSD during the twelve-year period. Figure 6 shows that deployment to Iraq and/or Afghanistan resulted in an increased risk of a subsequent assessment of PTSD in the UK Armed Forces.

37. Despite the increase in the rates of personnel assessed with PTSD over time, <b>rates remain low at 0.2%</b> of UK Armed Forces personnel in 2018/19, equivalent to 2 in 1,000 personnel.

38. Personnel may have more than one episode of care in a year. To understand clinical activity and prevalence of mental health disorders assessed at MOD Specialist Mental Health Services, it is important to present the total number of new episodes of care. This is of particular use to MOD's policy areas and other internal users of this bulletin.

Table 3: UK Armed Forces new episodes of care at MOD Specialist Mental Health Services by Service provider, initial assessment, numbers and percentage personnel at risk<sup>1,2,3</sup>. 2014/15-2018/19

	2014/15	2015/16	2016/17	2017/18	2018/19
Number of new episodes of care					
New episodes of care at MOD Mental Health					
Services <sup>1</sup>	6,574	7,022	6,692	6,639	5,710
At a DCMH	6,210	6,686	6,381	6,336	5,402
At a MOD in-patient provider	364	336	311	303	308
Episodes assessed with a mental disorder 2	5,246	5,669	5,521	5,411	4,717
Episodes assessed without a mental disorder 2	1,292	1,332	1,160	1,221	980
Missing mental disorder information <sup>3</sup>	36	21	11	7	13
Percentage of personnel at risk					
New episodes of care at MOD Mental Health					
Services <sup>1</sup>	3.9	4.3	4.2	4.2	3.7
At a DCMH	3.7	4.1	4.0	4.0	3.5
At a MOD in-patient provider	0.2	0.2	0.2	0.2	0.2
Episodes assessed with a mental disorder <sup>2</sup>	3.1	3.5	3.4	3.4	3.0
Episodes assessed without a mental disorder 2	0.8	0.8	0.7	0.8	0.6
Missing mental disorder information <sup>3</sup>	0.0	0.0	0.0	0.0	0.0

- 39. The rate of new episodes of care at MOD Specialist Mental Health Services in 2018/19 fell to 3.7%, a statistically significant decrease.
- 40. In 2018/19, **5,080** UK Armed Forces personnel had **5,710** new episodes of care at MOD Specialist Mental Health services (Tables 1 and 3). There were 5,402 new episodes at a MOD DCMH and 308 new episodes at MOD In-patient providers.
- 41. Breaking this information into initial assessments for mental health disorders at a MOD DCMH during 2018/19, there were :
  - 2,576 personnel with 2,712 new episodes of care for Neurotic Disorders. Of which:
    - 1,220 personnel with 1,260 new episodes of Adjustment Disorder.
    - 301 personnel with 324 new episodes of PTSD.
  - 1,343 personnel with 1,404 new episodes of care for Mood Disorder. Of which:
    - 1,192 personnel with 1,247 episodes of Depressive episodes.

<sup>1.</sup> Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71)

<sup>2.</sup> Clinician's initial assessment based on presenting symptoms (paragraphs 66 and 67)

<sup>3.</sup> Excludes personnel where Initial diagnosis was not supplied (See BQR)

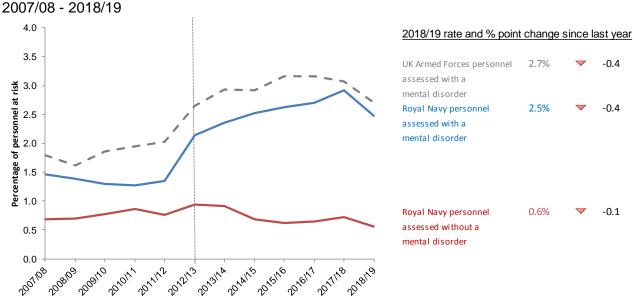
- 176 personnel with 190 new episodes of Psychoactive Substance Misuse. Of which:
  - 168 personnel with 182 episodes of Psychoactive Substance Misuse due to alcohol.
- 124 personnel with 129 new episodes of Other Mental Disorders.
- 42. Following a consultation in 2017 the production of more detailed tables presenting episodes of care data and rates have been ceased. Previous releases of the tables can still be found at https://www.gov.uk/government/collections/defence-mental-health-statistics-index.

Annex A1: Royal Navy personnel presenting at MOD Specialist Mental Health Services 2007/08-2018/19

<b>2.5%</b> Royal Navy personnel assessed with a mental disorder in 2018/19 at	Higher presentations seen in: Females Other Ranks	The most prevalent disorders were: Neurotic Disorders Mood Disorders
MOD Specialist Mental Health Services		

- 43. In 2018/19, approximately 3 in every 100 Royal Navy personnel were assessed with a mental disorder at MOD Specialist Mental Health Services.
- 44. The overall percentage of Royal Navy personnel presenting with mental ill health at MOD Specialist Mental Health Services was **2.5%** in 2018/19, a statistically significant decrease compared to the previous year. Rates of mental health among the UK Armed Forces also fell in the latest year.
- 45. There were statistically significant higher presentations in certain demographic groups in line with the findings for the UK Armed Forces as a whole :
  - Females
  - Other ranks
- 46. Neurotic Disorders and Mood Disorders were the most prevalent condition among Royal Naval personnel assessed with a mental disorder.
- 47. More information regarding presentations in certain demographics along with rates per 1,000 personnel at risk and 95% Confidence Intervals are available in Excel tables at https://www.gov.uk/government/collections/defence-mental-health-statistics-index.

Figure A1.1: Royal Navy personnel presenting at MOD Specialist Mental Health Services by initial assessment, percentage of personnel at risk<sup>1,2</sup>.



- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71).

Table A1.2: Royal Navy personnel assessed with a mental disorder at MOD Specialist Mental Health Services by demographics, number and percentage of personnel at risk<sup>1,2,3,4,5,6</sup>. 2018/19

	2018/19		
	n	%	percentage of Royal Navy personnel at risk
Number of Royal Navy personnel assess	sed		
with a mental disorder at			
Mental Health Services	651	2.5	
Gender			
Male	499	2.1	
Female*	152	4.9	
Rank			
Officer	96	1.5	
Other Rank*	555	2.8	
Age			
Aged <20	23	1.9	
Aged 20-24	123	2.7	
Aged 25-29	155	2.8	
Aged 30-34	135	2.9	
Aged 35-39	118	3.1	
Aged 40-44	55	2.3	
Aged 45-49	37	1.7	
Aged 50 +	15	0.8	
Deployment - Theatres of operation <sup>5</sup>			
Iraq and/or Afghanistan <sup>6</sup>	154	2.0	
of which Iraq	106	1.9	
Of which Afghanistan <sup>6</sup>	82	2.2	
Neither Iraq nor Afghanistan*	497	2.6	

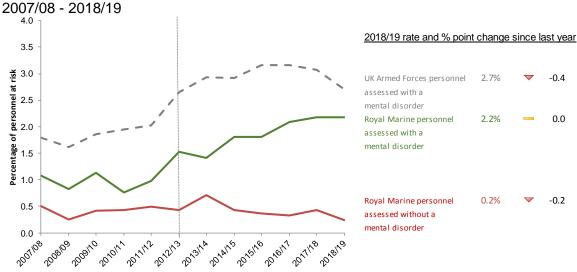
- 1. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71)
- 2. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 3. Numbers within demographic groups may not sum the total as personnel who have more than one episode of care in a year and change age group, rank or deployment status will be counted once in each sub-category.
- 4. '\*' denotes significantly higher rates to comparison group(s).
- 5. Deployment to the wider theatre of operation (see BQR)
- 6. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see BQR).

Annex A2: Royal Marine personnel presenting at MOD Specialist Mental Health Services 2007/08-2018/19

2.2%	Higher presentations seen in:	The most prevalent disorders were:
Royal Marines personnel assessed	Females	Neurotic Disorders
with a mental disorder in 2018/19 at		Mood Disorders
MOD Specialist Mental Health Services		

- 48. In 2018/19, approximately 2 in every 100 Royal Marine personnel were assessed with a mental disorder at MOD Specialist Mental Health Services.
- 49. The overall percentage of Royal Marine personnel presenting to MOD Specialist Mental Health Services with mental ill health in 2018/19 was the same as the previous year at a rate of **2.2%** of personnel, statistically significantly lower than the Army and RAF. Whilst rates of mental disorder for the Armed Forces as a whole fell in 2018/19, the rate for Royal Marines remained the same. This may be the result of an initiative within the Service to encourage help seeking called Project REGAIN which was introduced in January 2017.
- 50. Previous deployment to Iraq or Afghanistan was a predictor of mental disorders in the Royal Marines in 2009/10 and the last five years.
- 51. Royal Marine females had a significantly higher presentation rate in 2018/19 compared to males. However, numbers were small (seven Royal Marine females in 2018/19) so care should be taken when interpreting this difference. Please note investigations into the Royal Marine females assessed with a mental disorder in 2018/19 have been undertaken and they were all members of the Royal Marines Band and not the Royal Marines Commandos. Unlike for the overall UK Armed Forces, there was no significant difference among Royal Marines year on year between rank and age group.
- 52. Neurotic Disorders and Mood Disorders were the most prevalent conditions among Royal Marines assessed with a mental disorder.
- 53. More information regarding presentations in certain demographics along with rates per 1,000 personnel at risk and 95% Confidence Intervals are available in Excel tables at <a href="https://www.gov.uk/government/collections/defence-mental-health-statistics-index">https://www.gov.uk/government/collections/defence-mental-health-statistics-index</a>.

Figure A2.1: Royal Marine personnel presenting at MOD Specialist Mental Health services by initial assessment, percentage of personnel at risk<sup>1,2</sup>.



- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71).

Table A2.2: Royal Marine personnel assessed with a mental disorder at MOD Specialist Mental Health Services by demographics, number and percentage of personnel at risk<sup>1,2,3,4,5,6</sup>. 2018/19

		2018/19		
		n	%	percentage of Royal Marine personnel at risk
Number	of Royal Marine personnel ass	se sse d		•
with a m	ental disorder at			
Mental F	lealth Services	154	2.2	
Gender				
	Male	147	2.1	
	Female*	7	6.3	
Rank				
	Officer	14	1.7	
	Other Rank	140	2.3	
Age				
	Aged <20	0	-	
	Aged 20-24	15	1.1	
	Aged 25-29	45	2.3	
	Aged 30-34	43	3.1	
	Aged 35-39	29	3.2	
	Aged 40-44	21	4.1	
	Aged 45-49	~	0.5	
	Aged 50 +	~	1.2	
Deploym	nent - Theatres of operation <sup>5</sup>			
	Iraq and/or Afghanistan <sup>6</sup> *	89	2.9	
	of which Iraq	35	2.6	
	Of which Afghanistan <sup>6</sup> *	81	2.9	
	Neither Iraq nor Afghanistan	65	1.6	

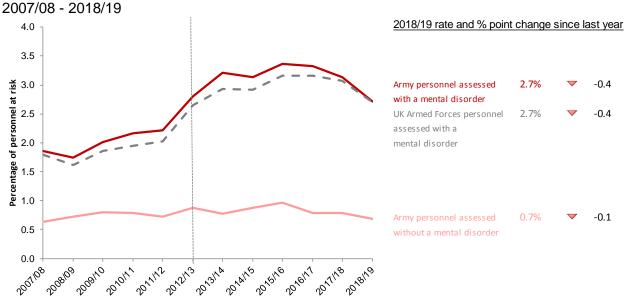
- 1. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71)
- 2. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 3. Numbers within demographic groups may not sum the total as personnel who have more than one episode of care in a year and change age group, rank or deployment status will be counted once in each sub-category.
- 4. '\*' denotes significantly higher rates to comparison group(s).
- 5. Deployment to the wider theatre of operation (see BQR)
- 6. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see BQR).

Annex A3: Army personnel presenting at MOD Specialist Mental Health Services 2007/08-2018/19

2.7%	Higher presentations seen in:	The most prevalent disorders were:
Army personnel assessed	Females	Neurotic Disorders
with a mental disorder in 2018/19 at	Other Ranks	Mood Disorders
MOD Specialist Mental Health Services	20 - 39 year olds	

- 54. In 2018/19, approximately 3 in every 100 Army personnel were assessed with a mental disorder.
- 55. The overall percentage of Army personnel presenting with mental ill health to MOD Specialist Mental Health Services was **2.7%** in 2018/19, a statistically significant decrease compared to the previous year. This is like the rate seen among the UK Armed Forces as a whole which also significantly decreased to 2.7% in 2018/19.
- 56. There were statistically significant higher presentations in certain demographic groups in line with the findings for the UK Armed Forces as a whole:
  - Females
  - Other ranks
  - Those aged between 20 and 39 years of age
- 57. Neurotic Disorders and Mood Disorders were the most prevalent conditions among Army personnel assessed with a mental disorder.
- 58. More information regarding presentations in certain demographics along with rates per 1,000 personnel at risk and 95% Confidence Intervals are available in Excel tables at <a href="https://www.gov.uk/government/collections/defence-mental-health-statistics-index">https://www.gov.uk/government/collections/defence-mental-health-statistics-index</a>.

Figure A3.1: Army personnel presenting at MOD Specialist Mental Health services by initial assessment, percentage of personnel at risk<sup>1,2</sup>.



- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71).

Table A3.2: Army personnel assessed with a mental disorder at MOD Specialist Mental Health Services by demographics, number and percentage of personnel at risk<sup>1,2,3,4,5,6</sup>. 2018/19

		2018/19		
				percentage of Army personnel
	_	n	%	at risk
Number o	of Army personnel assessed			
with a me	ental disorder at			
Mental He	ealth Services	2,403	2.7	
Gender				
	Male	2,016	2.5	
	Female*	387	5.0	
Rank				
	Officer	178	1.2	
	Other Rank*	2,225	3.0	
Age				
	Aged <20	116	2.2	
	Aged 20-24*	506	3.0	
	Aged 25-29*	566	2.9	
	Aged 30-34*	507	3.1	
	Aged 35-39*	399	2.9	
	Aged 40-44	212	2.7	
	Aged 45-49	94	1.9	
	Aged 50 +	45	1.1	
Deployme	ent - Theatres of operation <sup>5</sup>			
	Iraq and/or Afghanistan <sup>6</sup>	1,238	2.7	
	of which Iraq	646	2.8	
	Of which Afghanistan <sup>6</sup>	1,099	2.7	
	Neither Iraq nor Afghanistan	1,166	2.7	

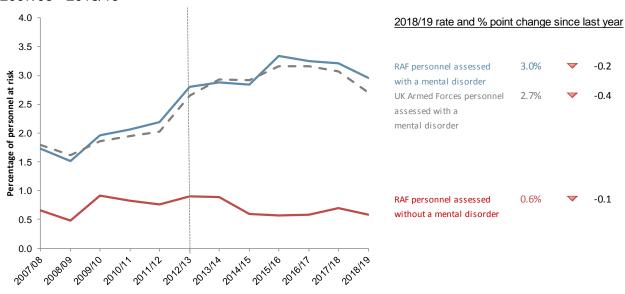
- 1. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71)
- 2. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 3. Numbers within demographic groups may not sum the total as personnel who have more than one episode of care in a year and change age group, rank or deployment status will be counted once in each sub-category.
- 4. '\*' denotes significantly higher rates to comparison group(s).
- 5. Deployment to the wider theatre of operation (see BQR)
- 6. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see BQR).

# Annex A4 RAF personnel presenting at MOD Specialist Mental Health Services 2007/08-2018/19

3.0%	Higher presentations seen in:	The most prevalent disorders were:
RAF personnel assessed	Females Other Ranks	Neurotic Disorders Mood Disorders
with a mental disorder in 2018/19 at MOD Specialist Mental Health Services		Widou Discruers

- 59. In 2018/19, approximately 3 in every 100 RAF personnel were assessed with a mental disorder.
- 60. The overall percentage of RAF personnel presenting to MOD Specialist Mental Health Services with mental ill health was **3.0%** in 2018/19, a decrease from 3.2% in the previous year. The rate of mental disorder among RAF personnel was higher than the rate of mental health among the UK Armed Forces as a whole (2.7%) although this difference was not statistically different.
- 61. There were statistically significant higher presentations in certain demographic groups in line with the findings for the UK Armed Forces as a whole:
  - Females
  - Other ranks
- 62. Neurotic Disorders and Mood Disorders were the most prevalent condition among RAF personnel assessed with a mental disorder.
- 63. More information regarding presentations in certain demographics along with rates per 1,000 personnel at risk and 95% Confidence Intervals are available in Excel tables at <a href="https://www.gov.uk/government/collections/defence-mental-health-statistics-index">https://www.gov.uk/government/collections/defence-mental-health-statistics-index</a>.

Figure A4.1: RAF personnel presenting at MOD Specialist Mental Health services by initial assessment, percentage of personnel at risk<sup>1,2</sup>. 2007/08 - 2018/19



- 1. Dotted lines represent 2012/13 revised methodology to include electronic patient record data source (paragraph 68).
- 2. Percentages are based on the calculation of the absolute number and are presented to 1dp (See paragraph 71).

Table A4.2: RAF personnel assessed with a mental disorder at MOD Specialist Mental Health Services by demographics, number and percentage of personnel at risk<sup>1,2,3,4,5,6</sup>. 2018/19

	2018/19		
			percentage of RAF personnel
	n	%	at risk
Number of RAF personnel assessed			
with a mental disorder at			
Mental Health Services	1,008	3.0	
Gender	740	0.5	
Male -	740	2.5	
Female*	268	5.5	
Rank			
Officer	159	1.9	
Other Rank*	849	3.3	
Age			
Aged <20	28	3.0	
Aged 20-24	126	2.8	
Aged 25-29	179	2.5	
Aged 30-34	234	3.6	
Aged 35-39	186	3.2	
Aged 40-44	130	3.5	
Aged 45-49	84	2.7	
Aged 50 +	51	1.9	
Deployment - Theatres of operation <sup>5</sup>			
Iraq and/or Afghanistan <sup>6</sup>	581	3.1	
of which Iraq	353	3.2	
Of which Afghanistan <sup>6</sup>	491	3.0	
Neither Iraq nor Afghanistar	427	2.8	

- 1. Percentages are based on the calculation of the absolute number and are presented to 1dp (paragraph 71)
- 2. Excludes personnel where Initial diagnosis was not supplied (See BQR)
- 3. Numbers within demographic groups may not sum the total as personnel who have more than one episode of care in a year and change age group, rank or deployment status will be counted once in each sub-category.
- 4. '\*' denotes significantly higher rates to comparison group(s).
- 5. Deployment to the wider theatre of operation (see BQR)
- 6. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see BQR).

**Admissions** In-patient admissions to the MOD mental health in-patient care providers.

**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.

**Assessed without a mental disorder** A few patients present to DCMH with symptoms that require the treatment skills of DCMH staff, whilst not necessarily having a specific and identifiable mental disorder as defined under ICD-10.

**Defence Medical Information Capability Programme (DMICP)** is the MOD electronic primary health care patient record.

**Department for Community Mental Health (DCMH)** DCMH are specialised psychiatric services based on community mental health teams closely located with primary care service at sites in the UK and abroad.

FTRS (Full-Time Reserve Service) are personnel who fill Service posts for a set period on a full-time basis while being a member of one of the Reserve Services, either as an ex-regular or as a volunteer. An FTRS reservist on:

**Full Commitment (FC)** fulfils the same range of duties and deployment liability as a regular Service person;

**Limited Commitment (LC)** serves at one location but can be detached for up to 35 days a year; **Home Commitment (HC)** is employed at one location and cannot be detached elsewhere.

Each Service uses FTRS personnel differently:

- The Naval Service predominantly uses FTRS to backfill gapped regular posts. However, they do have a small number of FTRS personnel that are not deployable for operations overseas. There is no distinction made in terms of fulfilling baseline liability posts between FTRS Full Commitment (FC), Limited Commitment (LC) and Home Commitment (HC).
- The Army employ FTRS(FC) and FTRS(LC) to fill Regular Army Liability (RAL) posts as a substitute for regular personnel for set periods of time. FTRS(HC) personnel cannot be deployed to operations and are not counted against RAL.
- The RAF consider that FTRS(FC) can fill Regular RAF Liability posts but have identified separate liabilities for FTRS(LC) and FTRS(HC).

**Gurkhas** are recruited and employed in the British and Indian Armies under the terms of the 1947 Tri-Partite Agreement (TPA) on a broadly comparable basis. They remain Nepalese citizens but in all other respects are full members of HM Forces. Since 2008, Gurkhas are entitled to join the UK Regular Forces after 5 years of service and apply for British citizenship.

International Statistical Classification of Diseases and Health-Related Disorders 10<sup>th</sup> edition (ICD-10) is the standard diagnostic tool for epidemiology, health management and clinical purposes. The following ICD 10 Chapters have been included in this report:

• F10 - F19 Mental and behavioural disorders due to psychoactive substance misuse, including alcohol. A wide variety of disorders that differ in severity (from uncomplicated intoxication and harmful use to obvious psychotic disorders and dementia), but that are all attributable to the use of one or more psychoactive substances (which may or may not have been medically prescribed).

- F30 F39 Mood affective disorders, including depressive episodes. Disorders in which the fundamental disturbance is a change in affect or mood to depression (with or without associated anxiety) or to elation. The mood change is usually accompanied by a change in the overall level of activity; most of the other symptoms are either secondary to, or easily understood in the context of, the change in mood and activity. Most of these disorders tend to be recurrent and the onset of individual episodes can often be related to stressful events or situations. Includes Manic and Bipolar affective disorders, Depressive and recurrent Depressive episodes and other mood affective disorders.
- F40 F49 Neurotic Stress related and somatoform disorders, including PTSD and Adjustment disorders. This includes mental disorders characterized by anxiety and avoidance behaviour, with symptoms distressing to the patient, intact reality testing, no violations of gross social norms, and no apparent organic aetiology.
- F00 F09, F20 F29 and F50 F99 are presented as 'Other mental health disorders'. This includes, disorders grouped together on the basis of their having in common a demonstrable etiology in cerebral disease, brain injury, or other insult leading to cerebral dysfunction; schizophrenia, personality disorders and eating disorders.

**In-patient services** are provided through eight NHS trusts in the UK which are part of a consortium headed by the South Staffordshire and Shropshire NHS Foundation Trust (SSSFT) and at Gilhead IV Hospital, Bielefield, Germany under a contract with Guys and St Thomas Hospital in the UK up until April 2013 and from this date the Soldiers, Sailors, Airmen and Families Association (SSAFA) through the Limited Liability Partnership.

**Mental disorder** Patients assessed by clinicians at a MOD DCMH or in-patient provider with a mental and behavioural disorder categorised under Chapter V in ICD-10.

**Military Provost Guard Service (MPGS)** provides trained professional soldiers to meet defence armed security requirements in units of all three Services based in Great Britain. MPGS provide armed guard protection of units, responsible for control of entry, foot and mobile patrols and armed response to attacks on their unit.

**Mobilised Reservists** are Volunteer or Regular Reserves who have been called into permanent service with the Regular Forces on military operations under the powers outlined in the Reserve Forces Act 1996. Call-out orders will be for a specific amount of time and subject to limits (e.g. under a call-out for warlike operations (Section 54), call-out periods should not exceed 12 months, unless extended.)

**MOD Specialist Mental Health Services** encompass the delivery of care through MOD's 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 episodes of care** New patients; or patients who have been seen at a DCMH but were discharged from care and have been referred again. This represents the level of clinical activity/prevalence and does not represent the number of personnel assessed as an individual may have more than one episode of care.

**Non-Regular Permanent Staff (NRPS)** are members of the Army Volunteer Reserve Force employed on a full-time basis. The NRPS comprises Commissioned Officers, Warrant Officers, Non - Commissioned Officers and soldiers posted to units to assist with the training, administrative and

special duties within the Army Reserve. Typical jobs are Permanent Staff Administration Officer and Regimental Administration Officer. Since 2010, these contracts are being discontinued in favour of FTRS (Home Commitment) contracts. NRPS are not included in the Future Reserves 2020 Volunteer Reserve population as they have no liability for call out.

**Number of Personnel** represents the number of individuals with an initial assessment at MOD Specialist Services. An individual may have more than one episode of care, but the individual will only be counted once in the number of personnel.

Officer An officer is 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.

**Operation HERRICK** is the name for UK operations in Afghanistan which started in April 2006. UK Forces are deployed to Afghanistan in support of the UN authorised, NATO led International Security Assistance Force (IASF) mission and as part of the US-led Operation Enduring Freedom (OEF).

**Operation SHADER** is providing military support to the US led Coalition to defeat Daesh in Iraq and Syria.

**Operation TELIC** is the name for UK operations in Iraq which started in March 2003 and finished on 21 May 2011. UK Forces were deployed to support the Government's objective to remove the threat that Saddam Hussein posed to his neighbours and his people and, based on evidence available at the time, disarm him of his weapons of mass destruction. The Government also undertook to support the Iraqi people in their desire for peace, prosperity and freedom.

**Operation TORAL** started 1 December 2014, is the UK's post 2014 contribution to operations in Afghanistan under the NATO RESOLUTE SUPPORT MISSION.

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

**Personnel at Risk** is defined as the number of serving UK Armed Forces personnel eligible for mental healthcare. This includes regular UK Armed Forces personnel, Ghurkhas, Military Provost Guard Staff, mobilised reservists, Full Time Reserve Service personnel and Non-regular Permanent Staff.

**Rate Ratio** (RR) provides a comparison of cases seen between personnel identified as having deployed to a theatre and those who have not been identified as having deployed to either theatre. A rate ratio less than 1 indicates lower rates in those deployed than those not deployed, whereas a rate ratio greater than 1 indicates higher rates in those deployed than those not deployed. If the 95% confidence interval does not encompass the value 1.0, then this difference is statistically significant.

Royal Air Force (RAF). The Royal Air Force (RAF) is the aerial defence force of the UK.

**Royal Marines** (RM) Royal Marines are 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).

**SSSFT** is the South Staffordshire and Shropshire NHS Foundation Trust which heads up the consortium providing in-patient care through eight NHS trusts in the UK.

**Strength** is defined as the number of serving UK Armed Forces personnel.

**UK Regulars** are full time Service personnel, including Nursing Services, but excluding FTRS personnel, Gurkhas, Naval activated Reservists, mobilised Reservists, Military Provost Guarding Service (MPGS) and Non-Regular Permanent Service (NRPS). Unless otherwise stated, includes trained and untrained personnel.

#### **Data, Definitions and Methods**

#### Data Sources

64. Defence Statistics receive data from DCMH and in-patient providers for all UK regular Armed Forces personnel from the following sources:

#### **DCMH**

- Between 01 January 2007 and 30 June 2014, the report captures data provided by DCMHs to Defence Statistics in monthly returns.
- For the period 01 April 2012 to 30 June 2014, new episodes of care data was also sourced from the electronic patient record held in Defence Medical Information Capability Program (DMICP) in addition to those provided by DCMH in monthly returns.
- Since 01 July 2014, DMICP was the single source of DCMH new episodes of care data.

# In-patient

 Since January 2007, SSSFT and Gilead IV hospital, Bielefeld have submitted relevant in-patient records.

### Data Coverage

- 65. The data in this report include regular UK Armed Forces personnel, Ghurkhas, Military Provost Guard Staff, mobilised reservists, Full Time Reserve Service personnel and Non-regular Permanent Staff as all of these individuals are eligible for assessment at a DCMH.
- 66. DCMH staff record the initial mental health assessment during a patient's first appointment, based on presenting complaints. The information is provisional and final diagnoses may differ as some patients do not present the full range of symptoms, signs or clinical history during their first appointment. The mental health assessment of conditions data were categorised into three standard groupings of common mental disorders used by the World Health Organisation's International Statistical Classification of Diseases and Health-Related Disorders 10th edition (ICD-10).
- 67. A number of patients present to DCMH with symptoms that require the treatment skills of DCMH staff, whilst not necessarily having a specific and identifiable mental disorder. These cases are referred to as "assessed without a mental disorder".

#### Methodology

- 68. Due to the methodology changes implemented in July 2009 and in July 2013, when looking at trends over time for new episodes of care across the series of published reports, it is advisable to note:
  - Prior to 2009/10, only an individual's first attendance at a DCMH or an in-patient provider were included in the data submitted by DCMHs to Defence Statistics.
  - Since 2009/10, the report captures all new episodes of care provided by DCMH to Defence Statistics in monthly returns.
  - Since 2012/13, the report captures all new episodes of care recorded in the MOD patient electronic record in addition to monthly submissions provided by DCMH to Defence Statistics.
- 69. Changes made to the methodology in July 2009 and July 2013 can be read in more detail in the Background Quality Report (BQR) published at www.gov.uk/government/publications/mod-national-and-official-statistics-by-topic.

70. 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. mental disorders) is then divided by the number of personnel at risk per annum and multiplied by 1,000 to calculate the rate per 1,000 personnel at risk.

# Percentage

- 71. Previous publications of this report have provided rates alongside numbers to provide context and comparison between groups. This information is still available in the Excel file accompanying the release of this report, however, due to user feedback, this publication now provides a focus on the percentage of the population at risk. This is calculated in the same way as the rate per 1,000 but multiplying by 100 instead of 1000, i.e. the number of events (for example mental disorders) is then divided by the number of personnel at risk per annum and multiplied by 100 to calculate the percentage of personnel affected. The percentages presented have been rounded to one decimal place.
- 72. The information presented in this publication has been structured to release information into the public domain in a way that contributes to the MOD accountability to the British public, but which doesn't risk breaching individual's rights to medical confidentiality. In line with JSP 200 Statistics (April 2016), and in keeping with the Office for National Statistics Guidelines, all numbers less than five have been suppressed and presented as '~' to prevent the inadvertent disclosure of individual identities. Where there is only one cell in a row or column that is less than five, the next smallest number (or numbers where there are tied values) has also been suppressed so that numbers cannot simply be derived from totals.

## Strengths and weaknesses of the data presented in this report

- 73. A key strength of this report is the presentation of the number of Service personnel who have been seen for a new episode of care at a DCMH or in-patient facility, as reported by clinicians. The inclusion in this report of new episodes of care direct from the legal electronic patient record improves the robustness and integrity of the underlying data. As the data is held in a pseudo-anonymised format in the DMICP data warehouse, patient consent is not an issue. A further strength is the use of the pseudo-anonymised patient identifier to enable DS to validate data therefore improving accuracy and enabling linkage to deployment records to identify any effect of deployment on mental health in the UK Armed Forces. In addition, the tables in this report have been scrutinised to ensure individual identities have not been revealed inadvertently.
- 74. Users should be aware that this report does not include information on patients seen only by their GP or Medical Officer. Mental disorder types reported here are the clinician's initial assessment during a patient's first appointment at a DCMH, based on presenting complaints, therefore final diagnosis may differ as some patients do not show full range of symptoms, signs or clinical history during their first appointment. It should also be noted that the clinician's primary diagnosis is reported here, however patients can present with more than one disorder. Changes in methodology in 2009/10 and 2012/13 also make it difficult to compare new episodes of care data over time. A further weakness of data in this report is that with any new data collection system, there is a training burden; user inexperience with the new mental health templates in DMICP may have affected coverage and accuracy. In addition, DMICP is a live system and extracts for this report are taken six weeks after the end of the reporting period. Therefore, any amendments to records or late data entries may be excluded from this report.
- 75. More detailed information on the data, definitions and methods used to create this report can be found in the Background Quality Report (BQR) published at www.gov.uk/government/publications/mod-national-and-official-statistics-by-topic.

#### References

- a. Mental Health Bulletin: 2017-18 Annual Report: NHS Digital. <a href="https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-bulletin/2017-18-annual-report">https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-bulletin/2017-18-annual-report</a>
- b. Sundin J., Jones N., Greenberg N., Rona R., Hotopf M., Wessely S., and Fear N. (2010) Mental Health among commando, airborne and other UK Infantry personnel Occupational Medicine, 60, 552-559.
- c. Singleton N, Lewis G (2003). Better or Worse: A longitudinal study of the mental health of adults living in private households in Great Britain, *Her Majesty's Stationery Office (HMSO): London.*
- d. McManus S, Bebbington P, Jenkins R, Brugha T. (eds.) (2016) Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014. Leeds: NHS Digital.
- e. Meltzer H, Singleton N, Lee A et al (2002). The social and economic circumstances of adults with mental disorders, *Her Majesty's Stationery Office (HMSO): London*.

#### **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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