

Annual Medical Discharges in the UK Regular Armed Forces 2010/11 - 2014/15

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INTRODUCTION

- 1. This report provides statistical information on medical discharges among UK Regular Service personnel during the five financial years 2010/11 2014/15. Each of the three Services are presented separately, Naval Service (includes Royal Navy and Royal Marines), Army and RAF, and information has been provided on:
 - Key socio-demographic factors, Rank and training status
 - The principal and contributory causes leading to discharge
- 2. Time series graphs have also been included presenting the overall number and crude rates per 1,000 strength per year of medical discharges for the last ten years, to help assess the impact of changes in policy and practices.
- 3. Medical discharges in the UK Armed Forces involve a series of processes, at times complex, which differ in each Service to meet their specific employment requirements. Due to these differences comparisons between the single Service statistics are judged to be invalid.

KEY POINTS

- For all three Services:
 - The most common principal cause of medical discharge in the reporting period was musculoskeletal disorders and injuries.
 - The second most common principal cause of medical discharge was Mental and behavioural disorders.
- 5. Across all three Services for the period 1 April 2010 to 31 March 2015 other ranks were at a higher risk of being medically discharged. Females were at a higher risk of medical discharge in the Naval Service and the RAF, whilst untrained personnel were at a higher risk of being medically discharged in the Army.
- 6. The rate of medical discharges for the Army has been increasing from 2010/11 (7.5 per 1,000 personnel) to 2014/15 (23.1 $^{\rm p}$ per 1,000 personnel). However, the number of personnel medically discharged fell from 2,239 $^{\rm p}$ in 2013/14 to 2,119 $^{\rm p}$ in 2014/15.
- 7. The rate of medical discharges in 2014/15 for the Naval Service (11.3 per 1,000 personnel) and the RAF (4.7 per 1,000 personnel) increased from 2013/14. Both Services had shown a decrease in 2013/14.
- 8. During the period 1 April 2010 to 31 March 2015, over 50% of personnel leaving the UK Regular Armed Forces on a medical discharge had more than one condition leading to discharge. Taking all causes into consideration (principal and contributory) for all three Services the most common cause was musculoskeletal disorders and injuries. Mental and behavioural disorders was the second most common cause of medical discharges in the Naval Service and RAF; however in the Army the second most common cause of medical discharge was factors influencing health status.

Background

- 9. Service personnel with medical conditions or fitness issues which affect their ability to perform their duties will generally be referred to a medical board for a medical examination and review of their medical grading. In clear cut cases where the individual's fitness falls below the Service employment and retention standards^a the board will recommend a medical discharge. In many cases however, the patient will first be downgraded, to allow for treatment, recovery and rehabilitation. For personnel who do not make a total recovery, the board may recommend the patient is retained as permanently downgraded with limited duties, or they may recommend a medical discharge. The recommendation is then forwarded to personnel administration units or an employment board for ratification or decision and action. This report focuses exclusively on medical discharges that have actually occurred. Personnel discharged under administrative categories on medical grounds are not defined as medical discharges and thus are not included in this report.
- 10. Medical boards that lead to medical discharge are run by consultant occupational physicians, however information is provided by a number of different clinical specialists which is taken into consideration along with an assessment of the individual's functional capacity and ability to be deployed/employed in a suitable environment. Statistics based on these discharges do not represent measures of true morbidity or pathology. At best they indicate a minimum burden of ill-health in the Armed Forces. Furthermore, the number and diversity of processes involved when administering a medical discharge introduce a series of time lags, as well as impact on the quality of data recorded.
- 11. Medical Boards do not make decisions on attributability to Service. These decisions are made by administrators of the MOD pension and compensation schemes at the Defence Business Services (DBS) previously Service Personnel and Veterans' Agency (SPVA). Defence Statistics produce biannual reports on the Armed Forces Compensation Scheme and annual reports on War Pension Scheme which can be found at https://www.gov.uk/government/organisations/ministry-of-defence/about/statistics.
- 12. This report has been provided in response to regular requests for information from internal stakeholders, the public and the media about UK Service personnel medically discharged from the Armed Forces.

DATA, DEFINITIONS AND METHODS

- 13. Any trends in the statistics presented within this report do not directly reflect actual occupational health morbidity within the Armed Forces. Medical discharge data are presented by year of medical discharge, and not year of injury / onset of condition that led to medical discharge. Therefore any trends identified may only be corresponding directly to changes in boarding practice, retention policies or changes to continuing employment standards.
- 14. The length of time between detecting and diagnosing a medical condition and the date at which an individual is eventually released under a medical discharge varies for each individual. The timing of a discharge medical board must strike an appropriate balance between the needs of the individual Service and those of the patient. The date of the medical discharge board should allow the timely provision of occupational health advice following the initial referral, and time elapsed waiting for further treatment may affect this process.
- 15. This report only focuses on medical causes for medical discharges. Medical boards are not called upon to decide possible causes for the medical conditions. Therefore the report does not offer analysis of external causes of injury related conditions or illnesses such as exposure to hazardous substances.

^a As laid down in JSP 346 and/or the single Services retention standards for their career group.

Data sources

- 16. Data are compiled by Defence Statistics from three sources:
 - a) Medically discharged personnel are identified in monthly downloads taken from the Joint Personnel Administration System (JPA). JPA is used to hold the administration data for all Regular Forces. The number of Service personnel in each year is also taken from the monthly downloads from JPA.
 - b) The principal and contributory causes of medical discharge are taken from F Med 23's. F Med 23's are official medical documents used to record all medical board proceedings. Defence Statistics are supplied F Med 23's by the single Service medical boards and code them into the medical discharge database. If consent for Defence Statistics to hold the information is not given the individual appears in the database with no clinical information recorded.
 - c) Where paper versions of the FMed 23 form have not been made available to Defence Statistics, the electronic version as recorded on the Defence Medical Information Capability Programme (DMICP) has been utilised.

Population

- 17. This report covers Regular Service personnel (trained and untrained). Royal Navy and Royal Marines personnel are recorded as Naval Service personnel; Army Regular personnel include Ghurkha Regiments and Military Provost Guard Service (MPGS).
- 18. Defence Statistics do receive some FMed 23's for Reservist personnel, however the number and coverage is currently unknown. Therefore this report does not cover the following Reservist personnel: Naval Activated Reservists; known members of the Home Service of the Royal Irish Regiment, mobilised Reservists, full time Reservists and the Army Reserves (previously Territorial Army) and; RAF Reservists. However, there may be a presence of a small unknown number of Reservist personnel within the medical discharge dataset which may cause a small bias in the results. This is due to the differing demographic properties (age, gender, rank, training status etc) of Reservist personnel and Regular personnel.
- 19. Personnel described in this report as "trainees" or "untrained" are those classified as under training or artificer candidate for Naval Service and Phase 1 and 2 training for Army and RAF.
- 20. Note that untrained personnel are sometimes discharged under administrative categories, albeit on medical grounds. These discharges usually concern individuals who have failed their initial training for medical reasons, or who at their initial medical failed to disclose medical reasons which may later affect their application and training. As these cases are not defined as medical discharges they are not included in this report.
- 21. In 2013/14, Defence Statistics did not receive the FMED 23 forms for 195 trained Regular Army personnel listed as medical discharges on JPA. In previous reports, the Army Personnel Centre (APC) have confirmed whether these cases are medical discharges and retrieved any FMED23 forms not received by Defence Statistics. This service is no longer provided by APC and we are therefore unable to determine whether these personnel have medically discharged or the principal and contributory causes for their discharge. Defence Statistics intend to update these figures by pursuing alternative lines of obtaining this information and therefore all Army figures provided for 2013/14 are provisional and have been annotated in the tables with a "p".
- 22. In 2014/15 Defence Statistics did not receive the FMED 23 forms for a further 709 trained Regular Army personnel listed as medical discharges on JPA. For these personnel, Defence Statistics interrogated the Defence Medical Information Capability Program (DMICP) to determine whether they had been medically downgraded between 1 April 2013 and 31 March 2015. Of the 709 personnel without an FMED 23 form, 509 had a medical downgrading between these dates. Of these, 126 had medical cause information associated with the downgrading for the other 383 personnel Defence Statistics are unable to determine a cause of discharge. The remaining 200 have

not been included in this report as it is not possible to determine from Fmed 23's or DMICP downgrading template that this is the correct reason for exiting from the Armed Forces.

Cause coding of medical conditions

- 23. The International Classification of Diseases & Related Health Problems version 10 (ICD 10) was used to classify medical discharges. As a result of public interest some ICD-10 groups have been provided in more detail allowing the presentation of specific conditions.
- 24. At the point of medical board, personnel have the opportunity to withhold or give their consent to their medical information relating to the medical board being forwarded to Defence Statistics. Should they withhold their consent they will still be counted as a medical discharge as indicated on JPA, however their reason for medical discharge will not be held by Defence Statistics, therefore their principal or contributory conditions leading to medical discharge are not presented. In Tables 2, 6 and 10 these are indentified by the field labelled 'Withheld Consent'.
- 25. There are also occasions when Defence Statistics have been unable to locate the medical documents/FMED 23s to enable the medical discharge record to be cause coded (ICD-10 Coded). In Tables 2, 6 and 10 these records are indentified by the field labelled 'No Details held on principal condition for medical boarding'. For the current year (2014/15) Defence Statistics were again unable to obtain 709 FMED 23 forms for Regular Army personnel. In previous years, missing Army forms have been sourced from the Army Personnel Centre (APC). However, APC were unable to provide this information for 2012/13, 2013/14 and 2014/15 resulting in the increase in Army medical discharges without a known cause code.
- 26. Principal condition is the first principal ICD 10 code on the medical discharge documents (FMED 23). Contributory cause contains all other principal conditions and any contributory conditions on the medical discharge paper (FMED 23).
- 27. Prior to the 2013/14 report, this publication has only included the principal condition leading to discharge i.e. the condition that had the greatest effect on their ability to continue their service. Since over 50% of Armed Forces personnel medically discharged have more than one condition affecting their ability to continue their role in the Armed Forces (both principal and contributory), the addition of contributory causes provides a more comprehensive picture.
- 28. The addition of contributory cause is intended to provide information on the total number of personal medically discharged from service that had their ability to perform their duties affected by specific medical conditions. It can not be used to identify the complexity of conditions for which personnel have been medically discharged, nor to identify relationships between conditions suffered by personnel medically discharged from service (co-morbidity).
- 29. It should be noted that the ICD 10 code group factors influencing health status (Z00 Z99) forms a larger proportion of contributory cause codes than principal cause codes. This is due to this category encompassing historic medical conditions that have affected an individual's ability to perform their duties.

Statistical methods

Crude rates

- 30. The crude rates are calculated by dividing the number of events (in this case medical discharges for each year) by the population at risk (in this case the average number of Service personnel on strength in each year^b).
- 31. Crude rates enable comparison between groups by removing the issue of different populations at risk (group sizes). The rates in this report present the number of personnel per 1,000 on strength that are medically discharged each year. As the size of the Armed forces varies through time, this is a more accurate means of comparing the proportion of personnel medically discharged from Service in different years than utilising counts of the personnel medically discharged.
- 32. Crude rates do not take the changing demographic profile (e.g. the gender and age structure) into account.
- 33. Crude rates are presented overall and for 'ranks' and 'training status' for each individual service each year.

Standardised rates

- 34. Only the rates provided for the five year reporting period (as opposed to those provided for the individual years) have been standardised. Unlike crude rates, standardised rates take into account the differing demographic structure of populations. The rates have been standardised to enable comparison to rates from the most recent year.
- 35. An outline of how these rates are calculated is provided below:
 - Gender standardised rates are presented for age groups, enabling comparisons to be made that take into account the gender profile of each age group. The chosen 'standard' population year is 2014/15.
 - Age standardised rates are presented for males and females, enabling comparisons to be made that take into account the age profile of each gender. The chosen 'standard' population year is 2014/15.
 - Demographic specific rates are provided for 'ranks' and 'training status' and are based on the appropriate denominator of the personnel at risk for the category being analysed (e.g. rates of discharge among Officers are based on the total Officer strength).
- 36. Please note that the comparison of standardised rates between this report and previous Official Statistic releases is not advisable, as the population used to standardise the rates differs between reports.

95% Confidence intervals

37. Confidence intervals (CI) are a statistical device designed to provide a measure of the likely variation of a given statistic. They provide the range of values within which we expect to find the actual value of the variable. In this report, confidence intervals have been calculated with a probability of 95%.

Z test for independent proportions

38. The z test for independent proportions is utilised evaluate if two rates are different to a statistically significant degree. The confidence level to which this test has been run in this report is 95%: this means that if the test determines two populations to have different medical discharge rates, this will be true in greater than 95% of cases.

Tables

39. The tables in this report have been scrutinised to ensure individual identities have not been revealed inadvertently. In line with Defence Statistics' rounding policy for health statistics (May 2009), and in keeping with the Office for National Statistics Guidelines, all numbers less than five have been suppressed and presented as '~'. Where there is only one cell in a row or column that is less than

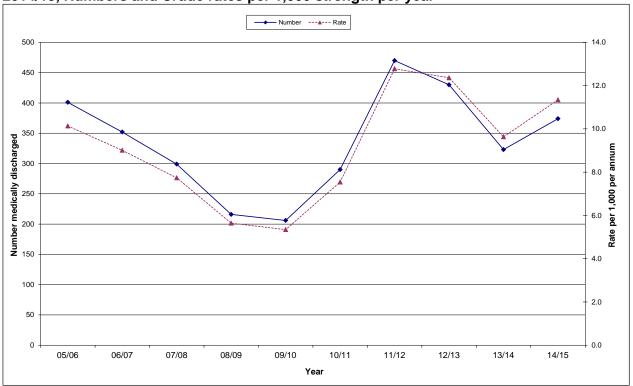
^b The average number of Service personnel on strength in each year is calculated using the 13 month average. i.e. For RAF 13/14 the number of RAF personnel at the first of each month from April 2013 to, and including, April 2014 are summed and divided by 13.

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.	

FINDINGS

Naval Service

Figure 1: UK Regular Naval Service medical discharges, by financial year, 2005/06 - 2014/15, Numbers and Crude rates per 1,000 strength per year



Source: FMED 23 and JPA

40. **Figure 1** shows the number and rate of personnel medically discharged from UK Regular Naval Service from 1 April 2005 to 31 March 2015, split by financial year. The graph shows a decrease in both the number and crude rate of medical discharges between 2005/06 and 2009/10. Medical discharges increased in rate from 2010/11 to 2011/12. From 2012/13 to 2013/14 both the number and rate of medical discharges declined. In 2014/15 the rate of medical discharges rose (11.3 per 1,000 personnel), and was above the level seen for the overall 5-year reporting period (10.7 per 1,000 personnel).

41. The decrease in the number and rate between 2005/06 and 2009/10 may be partly due to the Service endeavouring to retain seriously injured personnel if there was a role for them to fulfil, or if retention was in the interest of both the individual and the Service^c. The rise between 2009/10 and 2011/12 is likely to be a result of the improved management of the recovery care pathway, the completion of treatment and the restricted number of non-deployable roles available with the Naval Service.

^c As personnel wounded, injured or sick and those requiring long term (greater than three months) support for medical, welfare or disciplinary reasons are assigned to a Recovery Cell, Troop or HASLER Company (Coy)

- 42. **Table 1** presents numbers and rates of medical discharges among UK Regular Naval Service personnel by age group, gender, rank, training status and financial year for the five-year reporting period 2010/11 2014/15.
- 43. The dip in the number and rate of medical discharges in 2013/14 is believed to be the result of a number of factors, including:
 - A reduction in the capacity of Naval Service Medical Boards due to a lack of administrative support during 2013/14.
 - An elevated appetite in the Naval Service to retain permanently downgraded personnel during 2013/14.
- 44. The most noticeable changes in 2014/15 were:
 - Those aged 30 34 showed a 50% increase (11.1 per 1,000 personnel to 16.7 per 1,000 personnel) in the rate of medical discharge from 2013/14 to 2014/15.
 - The rate of medical discharges for Royal Marines increased from 12.4 per 1,000 in 2013/14 to 15.7 per 1,000 in 2014/15.

Table 1: UK Regular Naval Service medical discharges by age group¹, gender¹, rank¹ and training status¹, 2010/11 - 2014/15, Numbers² and Rates³ per 1,000 strength

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	All Years		2010	/11	2011	/12	2012	2/13	2013	3/14	2014	/15
	n	r	n	r	n	r	n	r	n	r	n	r
All	1,887	10.7	290	7.5	470	12.8	430	12.4	323	9.6	374	11.3
Under 20	12	2.0	~	2.1	~	1.7	~	5.9	~	1.2	0	0.0
20-24	307	8.0	56	6.4	83	10.2	70	9.3	51	7.2	47	7.1
25-29	560	13.3	77	8.9	128	14.9	104	12.5	120	14.5	131	15.8
30-34	417	14.4	48	9.0	100	17.6	102	17.4	66	11.1	101	16.7
35-39	293	12.5	58	9.9	69	13.4	75	16.8	41	10.1	50	12.6
40-44	183	9.0	26	5.9	54	12.0	45	10.6	30	7.8	28	8.0
45-49	90	7.2	16	6.3	24	9.2	25	9.8	~	4.4	~	5.8
50+	25	5.0	~	5.5	~	10.8	~	4.2	~	2.9	~	2.6
Male	1,624	10.3	243	7.0	395	11.8	377	11.9	279	9.1	330	11.0
Female	263	15.7	47	12.9	75	21.9	53	16.7	44	14.5	44	14.5
Officers	126	3.5	19	2.5	32	4.4	28	4.0	22	2.0	25	2.7
	1		-	2.5		4.4		4.0		3.2		3.7
Other ranks	1,761	12.5	271	8.8	438	14.9	402	14.5	301	11.3	349	13.3
Trained	1,758	10.8	269	7.6	449	13.0	399	12.4	298	9.7	343	11.4
Untrained	129	9.3	21	6.6	21	9.3	31	11.9	25	8.8	31	10.5
Royal Navy	1,298	9.5	225	7.4	332	11.5	262	9.7	227	8.8	252	10.0
Royal Marines	589	14.9	65	8.0	138	17.2	168	21.6	96	12.4	122	15.7

Source: FMED 23 and JPA

- 45. During the five-year period 2010/11 2014-15, a total of 1,887 Naval Service personnel were medically discharged, at an overall crude rate of 10.7 per 1,000 personnel.
- 46. During the latest financial year 2014/15 there was an increase in both the overall number and the crude rate of Naval Service personnel medically discharged from 2013/14. However, the number and crude rate is still lower than that seen in 2011/12 and 2012/13.
- 47. The dip in the number and rate of medical discharges in 2013/14 is believed to be the result of a number of factors, including:
 - A reduction in the capacity of Naval Service Medical Boards due to a lack of administrative support during 2013/14.
 - An elevated appetite in the Naval Service to retain permanently downgraded personnel during 2013/14.

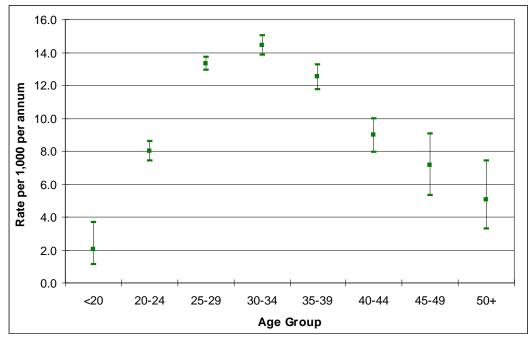
¹As recorded on the Joint Personnel Administration System (JPA) at the time of discharge.

²Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

³Age and gender standardised rates are presented for each age group and gender; rank and training status specific rates are presented for each rank and training status; overall crude rates are presented for each financial year (see paragraphs 30-36).

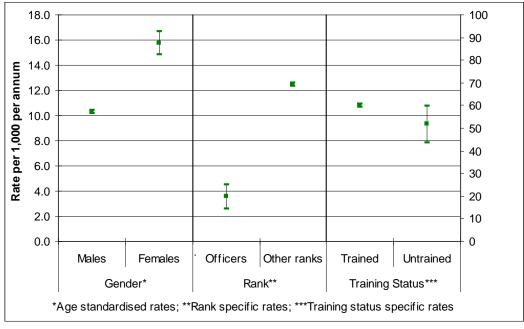
- 48. The most noticeable changes in 2014/15 were:
 - Those aged 30 34 showed a 50% increase (11.1 per 1,000 personnel to 16.7 per 1,000 personnel) in the rate of medical discharge from 2013/14 to 2014/15.
 - The rate of medical discharges for Royal Marines increased from 12.4 per 1,000 in 2013/14 to 15.7 per 1,000 in 2014/15.

Figure 2: UK Regular Naval Service medical discharges by age group, 2010/11 - 2014/15, Annualised gender standardised rates per 1,000 strength and 95% CI



Source: FMED 23 and JPA

Figure 3: UK Regular Naval Service medical discharges by gender, rank and training status, 2010/11 - 2014/15, Annualised gender standardised rates per 1,000 strength and 95% CI



Source: FMED 23 and JPA

49. **Figure 2** shows that during the five-year period 2010/11 - 2014/15, the gender standardised rates of medical discharges for personnel aged between 25 and 39 were higher than the other age groups. The rates for those aged between 25 and 39 is thought to be the result of a number of factors:

- a) Naval Service personnel are required to be fit for service at sea, as medical conditions that could be managed on land can be more problematic at sea. It is therefore felt that, as a rule, it is only when personnel are older that the manning situation can only allow for some personnel to be retained on shore without this strict criterion, which may account for the lower medical discharge rate among these personnel.
- b) The correlation between age and rank; personnel in higher ranks are more likely to be retained in a shore role than lower ranked personnel.
- c) The increased skill at specialist trades that comes with time served in the Naval Service may increase the value of personnel in shore based roles, increasing the likelihood that they may be retained in service.
- 50. This may account for the lower medical discharge rate among personnel aged 40 and over.
- Figure 3 shows that during the five-year period 2010/11 2014/15: 51.
 - The age standardised rate of medical discharges for female personnel (15.7 per 1,000 personnel, 95%Cl=14.8-16.7) was significantly higher than for male personnel (10.3 per 1.000 personnel, 95%CI=10.2-10.4).
 - The rank specific rate of medical discharges for Other Ranks (12.5 per 1,000 personnel, 95%CI=12.4-12.6) was significantly higher than for Officers (3.5 per 1.000 personnel, 95%CI=2.6-4.5).
 - The training status specific rate of medical discharges showed no significant difference for untrained personnel (9.3 per 1,000 personnel, 95%CI=7.9-10.8) and for trained personnel (10.8 per 1,000 personnel, 95%CI=10.7-10.9).
- **Table 2** presents number and proportion⁹ of medical discharges among UK Regular Naval Service personnel by principal ICD 10 cause code group and financial year for the five-year period 2010/11 - 2014/15.

^d Tested using a z-test for proportions at a 95% confidence level

e Tested using a z-test for proportions at a 95% confidence level

f Tested using a z-test for proportions at a 95% confidence level

⁹ As a proportion of all cause coded discharges.

Table 2: UK Regular Naval Service medical discharges by principal ICD 10 cause code group, 2010/11 - 2014/15, Numbers¹ and Percentages²

,		All	201	0/11	201	1/12	201	2/13	2013	3/14	2014	1/15
	n	%	n	%	n	%	n	%	n	%	n	%
All Causes of medical discharge	1,887		290		470		430		323		374	
All Cause Coded medical discharges	1,885	100	290	100	469	100	429	100	323	100	374	100
Infectious and parasitic diseases (A00 - B99)	10	<1	~	<1	5	1	~	<1	~	<1	0	0
Neoplasms (C00 - D48)	25	1	~	1	7	1	6	1	~	1	~	1
Blood disorders (D50 - D89)	12	<1	~	1	~	<1	~	<1	~	<1	~	<1
Endocrine, nutritional and metabolic diseases (E00 - E90)	37	2	5	2	8	2	9	2	9	3	6	2
- Of Which diabetes (E10-E14)	31	2	~	1	7	1	8	2	7	2	~	2
- Of which insulin-dependent (E10)	22	1	~	<1	~	<1	5	1	5	2	6	2
- Of which non-Insulin-dependent (E11)	9	<1	~	<1	~	<1	~	<1	~	<1	0	0
Mental and behavioural disorders (F00 - F99)	202	11	42	14	39	8	45	10	36	11	40	11
- Of which Mood disorders (F30 - F39)	85	5	17	6	16	3	18	4	15	5	19	5
- Of Which depression (F32 & F33)	73	4	16	6	14	3	16	4	13	4	14	4
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	89	5	19	7	17	4	24	6	13	4	16	4
- Of which post-traumatic stress disorder (PTSD) (F431)	37	2	7	2	6	1	14	3	5	2	5	1
- Of which adjustment disorder (F432)	9	<1	~	1	~	<1	~	<1	~	<1	0	0
Nervous system disorders (G00 - G99)	52	3	11	4	17	4	11	3	8	2	5	1
- Of which epilepsy (G40)	16	<1	~	1	5	1	5	1	~	<1	~	<1
Eye and adnexa diseases (H00 - H59)	29	2	~	1	7	1	7	2	~	1	7	2
- Of which blindness, low vision and visual disturbance (H53 & H54)	7	<1	~	<1	~	<1	~	<1	0	0	~	<1
Ear and mastoid process diseases (H60 - H95)	95	5	5	2	32	7	25	6	19	6	14	4
- Of which hearing loss (H833 & H90 - H91)	89	5	~	1	30	6	23	5	18	6	~	4
- Of which noise-induced hearing loss (H833)	54	3	~	1	16	3	18	4	9	3	~	2
- Of which tinnitus (H931)	0	0	0	0	0	0	0	0	0	0	0	0
Circulatory system disorders (I00 - I99)	42	2	10	3	13	3	6	1	7	2	6	2
Respiratory system disorders (J00 - J99)	31	2	~	2	12	3	~	1	~	2	~	1
- Of which asthma (J45 & J46)	29	2	5	2	11	2	~	<1	5	2	~	1
Digestive system disorders (K00 - K93)	56	3	8	3	14	3	12	3	8	2	14	4
Skin and subcutaneous tissue diseases (L00 - L99)	50	3	7	2	14	3	12	3	6	2	11	3
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	1,128	60	166	57	262	56	256	60	196	61	248	66
- Of which Injuries and disorders of the knee ³	328	17	43	15	90	19	77	18	47	15	71	19
- Of which knee pain (M2556)	105	6	13	4	31	7	25	6	20	6	16	4
- Of which back pain (M549)	151	8	26	9	26	6	39	9	29	9	31	8
- Of which low back pain (M544-5)	124	7	20	7	22	5	33	8	25	8	24	6
- Of which heat injury (T67)	0	0	0	0	0	0	0	0	0	0	0	0
- Of which cold injury (T68 & T69)	5	<1	~	<1	~	<1	~	<1	0	0	~	<1
Genitourinary system diseases (N00 - N99)	17	<1	~	<1	8	2	5	1	~	<1	~	<1
Pregnancy, childbirth and puerperium (O00 - O99)	0	0	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	9	<1	~	<1	~	<1	~	<1	~	<1	0	0
Clinical and laboratory findings (R00 - R99)	61	3	9	3	19	4	16	4	10	3	7	2
Factors influencing health status (Z00 - Z99)	29	2	~	2	~	1	8	2	~	<1	~	2
No details held on principle condition for medical boarding	1		0		1		0		0		0	
Witheld consent	1		0		0		1		0		0	

Source: FMED 23

² Data presented as "<1%" represent a value of greater than 0% but smaller than 1%

- 53. During the five-year period the most common principal cause of medical discharge for the Naval Service was musculoskeletal disorders and injuries with 60% (n=1,128) of all cause coded medical discharges.
 - Injuries and disorders of the knee accounted for 29% (n=328) of all musculoskeletal disorders and injuries and 17% of all cause coded medical discharges.
 - Back pain accounted for 13% (n=151) of all musculoskeletal disorders and injuries, of which low back pain accounted for 82% (n=124).
- 54. Musculoskeletal injuries and disorders, as a percentage of all cause coded medical discharges, has been increasing from 2010/11 (57%); it currently accounts for 66% of all cause coded medical discharges in 2014/15.
- 55. The second most common cause of medical discharge was mental and behavioural disorders which accounted for 11% (n=202) of all cause coded medical discharges over the five year period. The majority of mental and behavioural disorders were the result of neurotic disorders (n=89, 44%) and mood disorders (n=85, 42%).
 - Of the neurotic disorders the most common was post-traumatic stress disorder (PTSD) (n=37, 42%). PTSD accounted for 2% of all cause coded medical discharges.
 - Depression accounted for 86% (n=73) of all mood disorders and 4% of all cause coded medical discharges.

¹ Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

³ Injuries and disorders of the knee have been compiled using ICD 10 codes M17, M22, M23, M2406, M2416, M2436, M2536, M2556, M2566, M2586, M2596, M7046, M7126, M7636, M7656, M925, S800, S820, S83, S89.

- 56. As a percentage of all cause coded medical discharges, ear and mastoid process has decreased from 6% in 2013/14 to 4% in 2014/15. The change over this time period is likely to reflect changes in policy and practices and the work underway by the Defence Hearing Working Group. Hearing loss accounted for 94% (n=89) of all diseases of the ear and mastoid process between 2010/11 and 2014/15, of which noise-induced hearing loss accounted for 61% (n=54).
- 57. **Table 3** presents the number of principal and contributory causes for medical discharges among UK Regular Naval Service personnel by ICD 10 cause code group and financial year for 2010/11 2014/15.

Table 3: UK Regular Naval Service, principal and contributory¹ causes for medical discharges, by ICD 10 cause code group and financial year, 2010/11 - 2014/15, Numbers^{2,4} and Percentages⁵

Cause Code Groupings	Α	AII	2010	0/11	2011	/12	2012	2/13	2013	3/14	2014	1/15
	n	%	n	%	n	%	n	%	n	%	n	%
All Causes of medical discharge	1,887		290		470		430		323		374	
All Cause Coded medical discharges	1,885		290		469		429		323		374	
Infectious and parasitic diseases (A00 - B99)	10	<1	~	<1	5	1	~	<1	~	<1	0	0
Neoplasms (C00 - D48)	35	2	~	1	11	2	7	2	~	2	8	2
Blood disorders (D50 - D89)	32	2	7	2	10	2	8	2	~	2	~	<1
Endocrine, nutritional and metabolic diseases (E00 - E90)	67	4	10	3	13	3	17	4	16	5	11	3
- Of Which diabetes (E10-E14)	37	2	~	1	~	1	10	2	8	2	8	2
- Of which insulin-dependent (E10)	23	1	~	1	~	<1	5	1	5	2	6	2
- Of which non-Insulin-dependent (E11)	14	<1	~	<1	~	<1	5	1	~	<1	~	<1
Mental and behavioural disorders (F00 - F99)	313	17	54	19	75	16	61	14	57	18	66	18
- Of which Mood disorders (F30 - F39)	147	8	28	10	30	6	31	7	28	9	30	8
- Of Which depression (F32 & F33)	128	7	27	9	26	6	27	6	23	7	25	7
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	155	8	24	8	35	7	36	8	29	9	31	8
- Of which post-traumatic stress disorder (PTSD) (F431)	69	4	10	3	12	3	19	4	15	5	13	3
- Of which adjustment disorder (F432)	25	1	~	1	7	1	~	<1	~	1	6	2
Nervous system disorders (G00 - G99)	138	7	21	7	29	6	35	8	25	8	28	7
- Of which epilepsy (G40)	17	<1	~	1	5	1	6	1	~	<1	~	<1
Eye and adnexa diseases (H00 - H59)	45	2	7	2	10	2	12	3	7	2	9	2
- Of which blindness, low vision and visual disturbance (H53 & H54)	14	<1	5	2	~	<1	~	<1	~	<1	~	<1
Ear and mastoid process diseases (H60 - H95)	227	12	21	7	51	11	75	17	50	15	30	8
- Of which hearing loss (H833 & H90 - H91)	215	11	20	7	48	10	69	16	49	15	29	8
- Of which noise-induced hearing loss (H833)	95	5	8	3	19	4	30	7	22	7	16	4
- Of which tinnitus (H931)	101	5	~	<1	29	6	34	8	22	7	~	4
Circulatory system disorders (I00 - I99)	84	4	16	6	26	6	15	3	15	5	12	3
Respiratory system disorders (J00 - J99)	56	3	10	3	18	4	12	3	11	3	5	1
- Of which asthma (J45 & J46)	51	3	10	3	17	4	11	3	8	2	5	1
Digestive system disorders (K00 - K93)	84	4	10	3	20	4	23	5	10	3	21	6
Skin and subcutaneous tissue diseases (L00 - L99)	73	4	12	4	21	4	18	4	7	2	15	4
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	1,282	68	201	69	305	65	301	70	216	67	259	69
- Of which Injuries and disorders of the knee ³	413	22	62	21	112	24	95	22	59	18	85	23
- Of which knee pain (M2556)	163	9	22	8	43	9	39	9	29	9	30	8
- Of which back pain (M549)	232	12	32	11	44	9	63	15	42	13	51	14
- Of which low back pain (M544-5)	195	10	24	8	38	8	54	13	38	12	41	11
- Of which heat injury (T67)	~	<1	0	0	0	0	~	<1	0	0	0	0
- Of which cold injury (T68 & T69)	10	<1	~	<1	~	<1	~	<1	~	<1	~	<1
Genitourinary system diseases (N00 - N99)	30	2	~	<1	10	2	8	2	7	2	~	1
Pregnancy, childbirth and puerperium (O00 - O99)	0	0	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	19	1	6	2	5	1	~	1	~	<1	~	<1
Clinical and laboratory findings (R00 - R99)	105	6	15	5	33	7	25	6	19	6	13	3
Factors influencing health status (Z00 - Z99)	240	13	27	9	73	16	62	14	37	11	41	11
No details held on principle condition for medical boarding	1		0		1		0		0		0	
Witheld consent	1		0		0		1		0		0	

Source: FMED 23

- 58. The most common principal and contributory cause grouping for Regular Naval Service personnel was musculoskeletal disorders and injuries (68% of all cause coded UK Regular Naval Service medical discharges between 2010/11 and 2014/15). The two most prominent ICD 10 codes within this cause grouping were low back pain (M544-5, n=195) and knee pain (M2556, n=163).
- 59. The second most common principal and contributory cause grouping for Regular Naval Service personnel was mental and behavioural disorders, accounting for 17% of all cause coded UK

Personnel are only counted once per cause code grouping

² Personnel may have multiple contributory ICD 10 codes in different cause code groups associated with their medical discharge.

Therefore totals may not match those provided in Tables 1-3

³ Injuries and disorders of the knee have been compiled using ICD 10 codes M17, M22, M23, M2406, M2416, M2436, M2536, M2556, M2566, M2586, M2596, M7046, M7126, M7636, M7656, M925, S800, S82, S83, S89.

⁴ Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

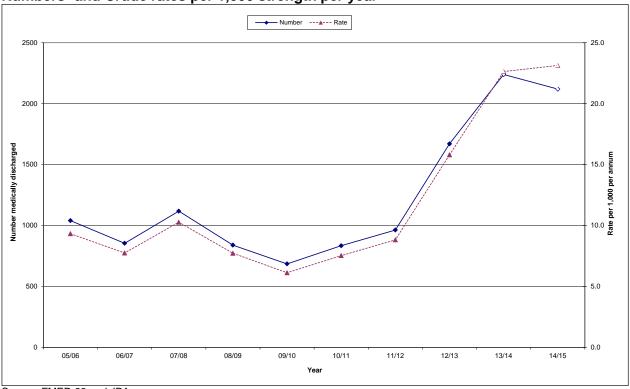
⁵ Data presented as "<1%" represent a value of greater than 0% but smaller than 1%

Regular Naval Service medical discharges between 2010/11 and 2014/15. The majority of mental and behavioural disorders were the result of neurotic disorders (n=155) and mood disorders (n=147).

60. The number and proportion of personnel medically discharged with a principal or contributory cause of ear and mastoid process disease has fallen from 50 (15%) in 2013/14 to 30 (8%) in 2014/15.

Army

Figure 4: UK Regular Army medical discharges, by financial year, 2005/06 - 2014/15, Numbers¹ and Crude rates per 1,000 strength per year^p



Source: FMED 23 and JPA

P Data for 2013/14 is provisional and subject to change

- 61. **Figure 4** shows the number and rate of personnel medically discharged from UK Regular Army between 1 April 2005 and 31 March 2015, by financial year. The graph shows an increase in both the number and rate of medical discharges from 2009/10 to a high point in 2013/14. The largest year on year increase in rate was seen between 2011/12 and 2012/13 (80%).
- 62. The decrease in the number and rate between 2007/08 and 2009/10 may be partly due to the Service endeavouring to retain seriously injured personnel if there is a role for them to fulfil, or if retention is in the interest of both the individual and the Service^h. The rise in the last three financial years is likely to be a result of the improved management of the recovery care pathway, the completion of treatment and the restricted number of non-deployable roles available with the Army.
- 63. **Table 4** presents numbers and rates of medical discharges among UK Regular Army personnel by age group, gender, rank, training status and financial year for the five-year reporting period 2010/11 2014/15.

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¹ Excludes 200 personnel registered on JPA as medically discharged in 2014/15 for which Defence Statistics were unable to obtain a paper or electronic copy of their FMED 23 form (see paragraph 22)

^h In February 2010 the Army Recovery Capability (ARC) was launched. The ARC ensures that wounded, injured, or sick personnel are focussed on achieving a successful outcome that is right for the individual and right for the Army. It ensures personnel who need it, have access to the key services and resources needed to help them return to duty or make a smooth transition into an appropriately skilled civilian life. The key services and resources are available to personnel from all three Services, including mobilised reservists

Table 4: UK Regular Army medical discharges¹ by age group¹, gender¹, rank¹ and training status¹, 2010/11 - 2014/15, Numbers^{2,3} and Rates⁴ per 1,000 strength

	All Years		2010	/11	2011	/12	2012	2/13	2013/	14	2014/	15
	n	r	n	r	n	r	n	r	n	r	n	r
All	7,825 ^p	15.2 ^p	834	7.5	963	8.8	1,670	15.8	2,239 ^p	22.6 ^p	2,119 ^p	23.1 ^p
Under 20	856 P	22.0 ^p	164	17.4	148	17.7	177	22.6	201 ^p	28.2 ^p	166 ^p	26.7 ^p
20-24	1,889 ^p	14.5 ^p	324	11.2	278	9.9	486	18.3	414 ^p	17.0 ^p	387 ^p	17.4 ^p
25-29	2,106 ^p	17.3 ^p	175	7.0	199	7.9	393	15.7	687 ^p	28.6 ^p	652 ^p	28.7 ^p
30-34	1,444 ^p	15.7 ^p	80	4.3	154	8.0	295	15.3	465 ^p	25.4 ^p	450 ^p	26.8 ^p
35-39	846 ^p	12.2 ^p	43	2.7	94	6.4	164	11.9	269 ^p	20.7 ^p	276 ^p	22.3 ^p
40-44	481 P	11.9 ^p	36	4.2	65	7.3	114	13.5	142 ^p	18.6 ^p	124 ^p	17.9 ^p
45-49	121 ^p	8.3 ^p	~	1.3	~	5.2	26	8.6	35 ^p	12.0 ^p	40 ^p	14.0 ^p
50+	82 ^p	9.9 ^p	~	4.6	~	5.1	15	8.9	26 ^p	16.3 ^p	24 ^p	15.5 ^p
Male	7,147 ^p	15.1 P	750	7.3	887	8.8	1,521	15.6	2,053 ^p	22.6 ^p	1,936 ^p	23.1 ^p
Female	678 ^p	16.4 ^p	84	9.9	76	8.9	149	17.5	186 ^p	22.6 ^p	183 ^p	23.3 ^p
Officers	212 P	3.0 ^p	28	1.9	28	1.9	45	3.1	53 ^p	3.9 ^p	58 ^p	4.4 ^p
Other ranks	7,613 ^p	17.1 ^p	806	8.4	935	9.9	1,625	17.8	2,186 ^p	25.6 ^p	2,061 ^p	26.3 ^p
Trained	5,590 ^p	11.8 ^p	404	4.0	574	5.7	1,184	12.3	1,738 ^p	19.1 ^p	1,690 ^p	20.0 ^p
Untrained	2,235	52.2	430	48.4	389	41.7	486	52.0	501	62.3	429	59.7

Source: FMED 23 & JPA

- During the five year reporting period 2010/11 2014/15, a total of 7,825^p Army personnel 64. were medically discharged, at an overall crude rate of 15.2^p per 1,000 personnel.
- Annual numbers and crude rates of medical discharge have risen from 2010/11 (n = 834, rate = 7.5 per 1,000 strength) to 2014/15 (n = 2,119 p rate = 23.1 p per 1,000 strength). This is an increase in the crude rate of 208%. Whilst the highest number of personnel medically discharged occurred in 2013/14 (2,239 P), 2014/15 had the highest rate of discharge (23.1P per 1,000 strength). This continued rise over this time period is likely to reflect changes in policy and practices in the management of the recovery pathway and the medical boarding process.

As recorded on the Joint Personnel Administration System (JPA) at the time of Discharge.

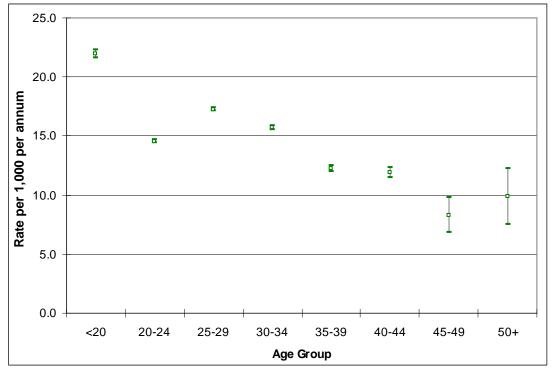
² Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

Excludes 200 personnel registered on JPA as medically discharged in 2014/15 for which Defence Statistics were unable to obtain a paper or electronic copy of their FMED 23 form (see paragraph 22)

Age and gender standardised rates are presented for each age group and gender; rank and training status specific rates are presented for each rank and training status; overall crude rates are presented for each financial year (see paragraphs 30-36).

Pludicates a provisional data point (see paragraph 21)

Figure 5: UK Regular Army medical discharges by age group, 2010/11 - 2014/15, Annualised gender standardised rates per 1,000 strength and 95% Cl^p



Source: FMED 23 & JPA Data is provisional and subject to change

Figure 6: UK Regular Army medical discharges by gender, rank and training status, 2010/11 -2014/15, Annualised gender standardised rates per 1,000 strength and 95% Cl^p



Source: FMED 23 & JPA Data is provisional and subject to change

- 66. **Figure 5** shows that during the five year reporting period 2010/11 2014/15, the gender standardised rates of medical discharges for personnel under 20 years old were higher than for personnel aged over 20 years old. Additionally, gender standardised rates of medical discharges for personnel aged between 20 and 35 were higher than personnel aged 35 or over.
- 67. The higher rate of discharge seen amongst the younger age-groups is likely to be linked to the high rate of discharge for untrained personnel (see paragraph 69).
- 68. **Figure 6** shows that during the five-year period 2010/11 2014/15:
 - The age standardised rate of medical discharges for female personnel (16.4^p per 1,000 personnel, 95% Cl=16.0-16.7^p) was not significantly higher than for male personnel (15.1^p per 1,000 personnel, 95% Cl=15.0-15.1^p).
 - The rank specific rate of medical discharges for Other Ranks (17.1° per 1,000 personnel, 95% Cl=17.1-17.1°) was significantly higher than for Officers (3.0° per 1,000 personnel, 95% Cl=2.5-3.5°).
 - The training status specific rate of medical discharges for untrained personnel (52.2^p per 1,000 personnel, 95% CI=52.0-52.4^p) was significantly^k higher than for trained personnel (11.8^p per 1,000 personnel, 95% CI=11.8-11.8^p).
- 69. The higher rate seen among untrained personnel is thought to reflect both the intensive physical nature of the training programmes for new Army recruits, and the demanding entry standards into the Field Army once qualified. Recruits whose fitness is found to fall below entry standards during training are readily medically discharged, whereas trained Army personnel may be retained if suitable employment can be found which is occupationally suitable for the individual's medical condition.
- 70. **Table 5** presents number and proportion of medical discharges among UK Regular Army personnel by principal ICD 10 cause code group and financial year for the five-year period 2010/11 2014/15.

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Tested using a z-test for proportions at a 95% confidence level

Tested using a z-test for proportions at a 95% confidence level

^k Tested using a z-test for proportions at a 95% confidence level

As a proportion of all cause coded discharges.

Table 5: UK Regular Army medical discharges by principal ICD 10 cause code group, 2010/11 - 2014/15, Numbers¹ and Percentages^{2,4}

	All		201	0/11	201	1/12	201	2/13	2013	/14	2014	/15
	n	%	n	%	n	%	n	%	n	%	n	%
All Causes of medical discharge	7,825 P		834		963		1,670		2,239 P		2,119 P	
All Cause Coded medical discharges	7,222 ^p	100	832	100	963	100	1,648	100	2,043 p	100	1,736 p	100 F
Infectious and parasitic diseases (A00 - B99)	55 P	<1 P	5	<1	8	<1	16	<1	17 ^p	<1 ^p	9 P	<1 ^F
Neoplasms (C00 - D48)	55 P	<1 p	6	<1	11	1	10	<1	14 ^p	<1 p	14 P	<1 F
Blood disorders (D50 - D89)	22 ^p	<1 P	~	<1	~	<1	9	<1	~ P	<1 p	~ P	<1 F
Endocrine, nutritional and metabolic diseases (E00 - E90)	87 P	1 P	7	<1	13	1	29	2	21 ^p	1 P	17 P	<1 F
- Of Which diabetes (E10-E14)	56 ^p	<1 P	~	<1	~	<1	21	1	15 P	<1 ^p	9 P	<1 F
- Of which insulin-dependent (E10)	45 ^p	<1 p	~	<1	6	<1	16	<1	13 ^p	<1 ^p	7 ^p	<1 F
- Of which non-Insulin-dependent (E11)	9 ^p	<1 p	~	<1	~	<1	~	<1	~ P	<1 ^p	~ P	<1 F
Mental and behavioural disorders (F00 - F99)	1,001 P	14 P	128	15	124	13	188	11	279 Р	14 P	282 P	16 F
- Of which Mood disorders (F30 - F39)	225 ^p	3 ^p	33	4	40	4	39	2	52 ^p	3 ^p	61 ^p	4 F
- Of Which depression (F32 & F33)	178 ^p	2 P	25	3	28	3	32	2	41 ^p	2 ^p	52 ^p	3 1
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	653 ^p	9 P	71	9	69	7	124	8	185 ^p	9 ^p	204 ^p	12 ^F
- Of which post-traumatic stress disorder (PTSD) (F431)	410 ^p	6 P	33	4	44	5	73	4	123 ^p	6 ^p	137 ^p	8 1
- Of which adjustment disorder (F432)	66 ^p	<1 p	9	1	8	<1	10	<1	22 ^p	1 ^p	17 P	<1
Nervous system disorders (G00 - G99)	235 P	3 P	23	3	39	4	64	4	59 P	3 P	50 P	3 '
- Of which epilepsy (G40)	81 P	1 P	11	1	13	1	22	1	23 ^p	1 ^p	12 ^p	<1 F
Eye and adnexa diseases (H00 - H59)	64 ^p	<1 P	10	1	13	1	11	<1	20 ^p	<1 ^p	10 P	<1
- Of which blindness, low vision and visual disturbance (H53 & H54)	29 ^p	<1 p	~	<1	6	<1	7	<1	8 ^p	<1 ^p	~ P	<1
Ear and mastoid process diseases (H60 - H95)	452 P	6 P	37	4	66	7	101	6	151 P	7 P	97 ₽	6
- Of which hearing loss (H833 & H90 - H91)	421 ^p	6 ^p	34	4	63	7	99	6	136 ^p	7 ^p	89 ^p	5 1
- Of which noise-induced hearing loss (H833)	193 ^p	3 ^p	14	2	33	3	44	3	64 ^p	3 ^p	38 ^p	2
- Of which tinnitus (H931)	17 ^p	<1 P	0	0	~	<1	~	<1	8 P	<1 ^p	6 ^p	<1 ¹
Circulatory system disorders (I00 - I99)	149 P	2 ^p	26	3	22	2	38	2	38 ^p	2 ^p	25 P	1 '
Respiratory system disorders (J00 - J99)	78 P	1 P	14	2	16	2	18	1	12 ^p	<1 ^p	18 ^p	1 '
- Of which asthma (J45 & J46)	67 ^p	<1 ^p	13	2	16	2	15	<1	12 ^p	<1 ^p	11 P	<1 ¹
Digestive system disorders (K00 - K93)	135 P	2 P	11	1	17	2	35	2	45 P	2 p	27 P	2
Skin and subcutaneous tissue diseases (L00 - L99)	104 P	1 P	13	2	19	2	17	1	30 P	1 P	25 P	1 '
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	4,397 P	61 P	496	60	552	57	1,016	62	1,246 ^p	61 ^p	1,087 P	63
- Of which Injuries and disorders of the knee ³	859 ^p	12 ^p	135	16	117	12	182	11	229 ^p	11 ^p	196 ^p	11 '
- Of which knee pain (M2556)	334 ^p	5 ^p	62	7	40	4	75	5	84 ^p	4 ^p	73 ^p	4
- Of which back pain (M549)	563 ^p	8 ^p	62	7	72	7	125	8	156 ^p	8 ^p	148 ^p	9 1
- Of which low back pain (M544-5)	456 ^p	6 ^p	40	5	56	6	104	6	129 ^p	6 ^p	127 ^p	7 '
- Of which heat injury (T67)	25 ^p	<1 P	5	<1	~	<1	7	<1	9 P	<1 ^p	~ P	<1
- Of which cold injury (T68 & T69)	283 ^p	4 P	16	2	36	4	85	5	81 P	4 ^p	65 ^p	4
Genitourinary system diseases (N00 - N99)	40 P	<1 P	6	<1	7	<1	6	<1	12 ^p	<1 ^p	9 ₽	<1
Pregnancy, childbirth and puerperium (O00 - O99)	0 P	0 P	0	0	0	0	0	0	О р	0 P	О Р	0 '
Congenital malformations (Q00 - Q99)	22 ^p	<1 P	~	<1	~	<1	6	<1	~ ^p	<1 ^p	~ ^p	<1
Clinical and laboratory findings (R00 - R99)	213 P	3 ^p	36	4	35	4	44	3	49 P	2 ^p	49 P	3
Factors influencing health status (Z00 - Z99)	113 ^p	2 ^p	9	1	14	1	40	2	42 ^p	2 ^p	8 ^p	<1
No details held on principle condition for medical boarding	601 P		1		0		22		195 P		383 P	
Witheld consent	2 ^p		1		0		0		1 P		0 P	

Source: FMED 23

² Data presented as "<1%" represent a value of greater than 0% but smaller than 1%

P Indicates a provisional data point (see paragraph 21)

- 71. Please note that due to the high number of discharges without cause codes in 2014/15 (n=383, 18% of all discharges), decreases in the number of personnel medically discharged for specific cause code groups between 2013/14 and 2014/15 should not be viewed as an actual decline.
- 72. During the five-year period the most common cause of medical discharge for the Army was musculoskeletal disorders and injuries with $61\%^p$ (n=4,397 p) of all cause coded medical discharges. Within this cause group:
 - Injuries and disorders of the knee accounted for 20%^p (n=859^p) of all musculoskeletal disorders and injuries, of which knee pain accounted for 39%^p (n=334^p).
 - Medical discharges for Injuries and disorders of the knee accounted for 12%^p of all cause coded medical discharges.
 - Back pain accounted for 13%^p (n=563^p) of all musculoskeletal disorders and injuries, of which low back pain accounted for 81%^p (n=456^p). Medical discharges for back pain accounted for 8%^p of all cause coded medical discharges.
- 73. Medical discharges attributable to cold injuries accounted for $6\%^p$ (n=283 p) of all musculoskeletal disorders and injuries and $4\%^p$ of all cause coded medical discharges. Less than $1\%^p$ (n=25 p) of all cause coded medical discharges were attributable to heat injuries.

¹ Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

³ Injuries and disorders of the knee have been compiled using ICD 10 codes M17, M22, M23, M2406, M2416, M2436, M2536, M2556, M2566, M2586, M2596, M7046, M7126, M7636, M7656, M925, S800, S820, S83, S89.

⁴ Excludes 200 personnel registered on JPA as medically discharged in 2014/15 for which Defence Statistics were unable to obtain a paper or electronic copy of their FMED 23 form (see paragraph 22)

- 74. The second most common cause of medical discharge was mental and behavioural disorders with 14%^p (n=1,001^p) of all cause coded medical discharges. The majority of mental and behavioural disorders were made up by neurotic disorders (n=653^p, 65%^p) and mood disorders (n=225^p, 22%^p).
 - Of the neurotic disorders the most common were post-traumatic stress disorder (PTSD) (n=410^p, 63%^p) and adjustment disorder (n=66^p, 10%^p). These disorders made up only 7%^p of all cause coded medical discharges.
 - Of the mood disorders, depression accounted for 79%^p (n=178^p) and accounted for 2%^p of all cause coded medical discharges.
 - Mental and behavioural disorders, as a proportion of all cause coded medical discharges, have remained stable over the period 2010/11 2014/15.
- 75. The proportion of ear and mastoid process diseases has remained stable over the reporting period. Medical discharges attributable to diseases of the ear and mastoid process accounted for 6%^p (n=452^p) of all cause-coded medical discharges.
- 76. Causes of medical discharge for the Army have been scrutinised in order to identify whether any specific causes have been drivers for the 133% increase between 2011/12 and 2013/14. All the main causes of medical discharge have increased at a similar rate; therefore the rise in total medical discharges cannot be attributed to any single principal cause code.
- 77. **Table 6** presents the number of principal and contributory causes for medical discharges among UK Regular Army personnel by ICD 10 cause code group and financial year for 2010/11 2014/15.

Table 6: UK Regular Army, principal and contributory¹ causes for medical discharges, by ICD 10 cause code group and financial year, 2010/11 - 2014/15, Numbers^{2,4} and Percentages⁵

Cause Code Groupings	A		2010		201		2012	2/13	2013/	<u>/14</u>	2014	/15
	n	%	n	%	n	%	n	%	n	%	n	%
All Causes of medical discharge	7.825 P	,,,	834	,,,	963	,,,	1,670	,,	2,239 P	,,,	2.119 -	
All Cause Coded medical discharges	7,222 ₽		832		963		1,648		2,043 ₽		1,736 ₽	
Infectious and parasitic diseases (A00 - B99)	79 ₽	1 P	~	<1	~	1	24	1	25 P	1 '		<1 P
Neoplasms (C00 - D48)	69 ₽	<1 P	8	<1	12	1	13	<1	16 P	<1	20 ₽	1 P
Blood disorders (D50 - D89)	~ P	<1 P	~	<1	~	<1	15	<1	~ P	<1 5	8 P	<1 P
Endocrine, nutritional and metabolic diseases (E00 - E90)	198 ₽	3 P	25	3	31	3	55	3	50 P	2 1	37 P	2 P
- Of Which diabetes (E10-E14)	86 ^p	1 P	7	<1	10	1	30	2	22 ^p	1 5	17 P	<1 P
- Of which insulin-dependent (E10)	47 P	<1 P	~	<1	~	<1	17	1	13 ^p	<1	~ P	<1 P
- Of which non-Insulin-dependent (E11)	31 P	<1 P	~	<1	~	<1	10	<1	8 ^p	<1	7 P	<1 P
Mental and behavioural disorders (F00 - F99)	1.462 ₽	20 ₽	151	18	167	17	278	17	405 P	20 1	461 P	27 ₽
- Of which Mood disorders (F30 - F39)	484 P	7 P	53	6	62	6	90	5	117 P	6	162 ^p	9 P
- Of Which depression (F32 & F33)	377 p	5 P	45	5	47	5	74	4	89 ^p	4	122 ^p	7 P
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	990 P	14 P	88	11	105	11	184	11	284 ^p	14	329 ^p	19 P
- Of which post-traumatic stress disorder (PTSD) (F431)	580 P	8 P	39	5	68	7	109	7	173 ^p	8	191 ^p	11 P
- Of which adjustment disorder (F432)	198 P	3 P	16	2	18	2	33	2	59 ^p	3 1	72 ^p	4 P
Nervous system disorders (G00 - G99)	433 P	6 ₽	48	6	67	7	113	7	106 P	5		6 P
- Of which epilepsy (G40)	103 P	1 P	14	2	17	2	27	2	32 ^p	2	13 ^p	<1 P
Eye and adnexa diseases (H00 - H59)	122 ₽	2 P	15	2	21	2	26	2	40 P	2 1	20 P	1 P
- Of which blindness, low vision and visual disturbance (H53 & H54)	63 ^p	<1 P	11	1	9	<1	19	1	15 ^p	<1	9 ^p	<1 P
Ear and mastoid process diseases (H60 - H95)	717 P	10 P	51	6	89	9	170	10	232 P	11 '	175 P	10 P
- Of which hearing loss (H833 & H90 - H91)	670 P	9 P	46	6	87	9	166	10	217 ^p	11	154 ^p	9 P
- Of which noise-induced hearing loss (H833)	269 p	4 P	19	2	44	5	61	4	86 ^p	4	59 ^p	3 ^p
- Of which tinnitus (H931)	180 P	2 P	10	1	14	1	41	2	52 ^p	3 1	63 ^p	4 P
Circulatory system disorders (I00 - I99)	275 ₽	4 P	41	5	46	5	76	5	63 ^p	3 1	49 P	3 P
Respiratory system disorders (J00 - J99)	139 ₽	2 P	16	2	23	2	36	2	30 P	1 '	34 P	2 P
- Of which asthma (J45 & J46)	121 P	2 P	14	2	22	2	32	2	28 ^p	1 1	25 ^p	1 P
Digestive system disorders (K00 - K93)	204 ₽	3 P	19	2	26	3	49	3	62 ^p	3 1	48 P	3 ^p
Skin and subcutaneous tissue diseases (L00 - L99)	144 P	2 P	16	2	23	2	32	2	35 P	2 1	38 P	2 P
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	5,083 ₽	70 ₽	548	66	630	65	1,173	71	1,473 P	72	1,259 P	73 P
- Of which Injuries and disorders of the knee ³	1,201 P	17 P	168	20	151	16	255	15	319 ^p	16 F	308 ^p	18 P
- Of which knee pain (M2556)	577 ^p	8 P	79	9	61	6	126	8	153 ^p	7 1	158 ^p	9 P
- Of which back pain (M549)	901 ^p	12 P	81	10	96	10	204	12	264 ^p	13	256 ^p	15 P
- Of which low back pain (M544-5)	729 ^p	10 P	56	7	77	8	164	10	211 ^p	10	221 ^p	13 P
- Of which heat injury (T67)	35 ^p	<1 P	7	<1	~	<1	10	<1	11 P	<1	~ P	<1 P
- Of which cold injury (T68 & T69)	410 P	6 P	25	3	45	5	115	7	116 ^p	6	109 ^p	6 ^p
Genitourinary system diseases (N00 - N99)	84 P	1 P	8	<1	12	1	20	1	26 ^p	1 5	18 P	1 P
Pregnancy, childbirth and puerperium (O00 - O99)	~ P	<1 P	0	0	0	0	~	<1	0 ^p	0 1	0 P	0 P
Congenital malformations (Q00 - Q99)	40 P	<1 P	~	<1	~	1	~	<1	~ ^p	<1 5	9 P	<1 P
Clinical and laboratory findings (R00 - R99)	366 P	5 ₽	49	6	58	6	77	5	91 P	4	91 P	5 P
Factors influencing health status (Z00 - Z99)	2,002 ₽	28 ₽	152	18	221	23	384	23	639 ^p	31	606 P	35 F
No details held on principle condition for medical boarding	601 P		1		0		22		195 P		383 ^p	
Witheld consent	1		1		0		0		1		0	

Source: FMFD 23

- 78. The most common cause grouping for Regular Army personnel was musculoskeletal disorders and injuries, accounting for 70% of all cause coded UK Regular Army medical discharges between 2010/11 and 2014/15. The four most prominent ICD 10 codes within this cause grouping were knee pain (M2556), low back pain (M5459), cold injury (T698) and compartment syndrome (T796).
- 79. The second most common cause grouping for Regular Army personnel accounting for 28% was factors influencing health status. The two most prominent ICD 10 codes within this cause grouping were other physical and mental strain related to work (Z566) and personal history of diseases of the musculoskeletal system and connective tissue (Z873).
- 80. The third most common cause grouping for Regular Army personnel was mental and behavioural disorders, accounting for 20% of all cause coded UK Regular Army medical discharges between 2010/11 and 2014/15. The most common conditions within this grouping were neurotic and mood disorders which include conditions such as Post-traumatic-stress-disorder and depression.
- 81. The number and proportion of personnel medically discharged with a principal or contributory cause of ear and mastoid process disease has seen an increase, from 51 (6%) in 2010/11 to 175°

¹ Personnel are only counted once per cause code grouping

² Personnel may have multiple contributory ICD 10 codes in different cause code groups associated with their medical discharge.

Therefore totals may not match those provided in Tables 1-3

³ Injuries and disorders of the knee have been compiled using ICD 10 codes M17, M22, M23, M2406, M2416, M2436, M2446, M2536, M2556, M2566, M2586, M2596, M7046, M7126, M7636, M7656, M925, S800, S82, S83, S89.

⁴ Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

⁵ Data presented as "<1%" represent a value of greater than 0% but smaller than 1%

^p Indicates a provisional data point (see paragraph 21)

 $(10\%^p)$ in 2014/15 (with a peak of 232^p , $11\%^p$ in 2013/14) . This was due to an increase in the number medical discharges with a contributory cause of hearing loss (H919), noise induced hearing loss (H833) and tinnitus (H931).

RAF

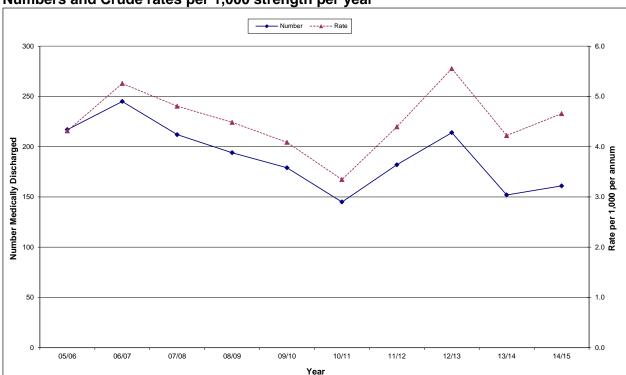


Figure 7: UK Regular RAF medical discharges, by financial year, 2005/06 - 2014/15, Numbers and Crude rates per 1,000 strength per year

Source: FMED 23 & JPA

- 82. **Figure 7** shows the number and rate of personnel medically discharged from UK Regular RAF between 1 April 2005 and 31 March 2015, by financial year. The graph shows a decrease in both the number and rate of medical discharges between 2006/07 and 2010/11, before the rate increased by 70% between 2010/11 and 2012/13. The rate dropped once more in 2013/14 by 25%, before rising in 2014/15. However, the rate of discharge remains lower than the peak seen in 2012/13.
- 83. The decrease in the number and rate between 2006/07 and 2010/11 may be partly due to the Service endeavouring to retain seriously injured personnel if there is a role for them to fulfil, or if retention is in the interest of both the individual and the Service^m.
- 84. 2010/11 and 2011/12 show an increasing gap between the number of medical discharges, and the rate per 1,000 personnel. This gap has remained during 2013/14 and 2014/15. This is a result of the reduction in manpower numbers seen within the RAF in recent years, combined with the increase in the number of medical discharges.
- 85. **Table 7** presents numbers and rates of medical discharges among UK regular RAF personnel by age group, gender, rank, training status and financial year for the five-year reporting period 2010/11 2014/15.

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^m As personnel wounded, injured or sick and those requiring long term (greater than three months) support for medical, welfare or disciplinary reasons are assigned to a Personnel Recovery Unit (formerly known as the Personnel Holding Flight).

Table 7: UK Regular RAF medical discharges by age group, gender, rank and training

status¹, 2010/11 - 2014/15, Numbers² and Rates³ per 1,000 strength

	All Years		2010/	11	2011/	/12	2012	/13	2013	/14	2014	/15
	n	r	n	r	n	r	n	r	n	r	n	r
All	854	4.4	145	3.3	182	4.4	214	5.6	152	4.2	161	4.7
Under 20	6	1.4	~	2.5	0	0.0	~	3.6	0	0.0	0	0.0
20-24	79	2.5	18	2.4	19	2.7	~	3.6	~	1.4	11	2.1
25-29	191	4.5	38	4.1	37	4.1	34	4.0	43	5.3	39	5.1
30-34	138	3.8	13	1.9	27	3.7	44	6.0	23	3.2	31	4.4
35-39	135	4.9	25	3.7	25	4.2	31	5.9	23	4.7	31	6.1
40-44	144	5.8	30	5.1	38	6.7	33	6.4	25	5.5	18	4.4
45-49	86	5.3	~	2.6	18	5.3	24	7.4	~	4.5	21	6.9
50+	75	7.6	~	3.9	18	8.7	~	11.3	16	8.3	10	5.3
Male	667	4.0	101	2.7	151	4.2	175	5.3	114	3.7	126	4.2
Female	187	7.3	44	7.4	31	5.4	39	7.3	38	7.6	35	7.3
Officers	110	2.5	13	1.3	26	2.8	33	3.8	15	1.9	23	3.0
Other ranks	744	5.0	132	3.9	156	4.9	181	6.1	137	4.9	138	5.1
Trained	808	4.4	128	3.2	171	4.4	201	5.5	~	4.4	~	4.9
Untrained	46	4.2	17	5.6	11	5.2	13	7.3	~	1.6	~	1.0

Source: FMED 23 and JPA

86. During the five-year period 2010/11 - 2014/15, a total of 854 RAF personnel were medically discharged, at an overall crude rate of 4.4 per 1,000 personnel.

87. The most noticeable changes in 2014/15 were:

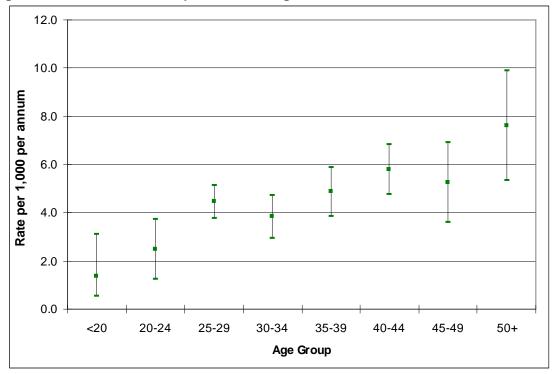
- Rates increased for personnel aged 45 to 49 by 53% (from 4.5 to 6.9 per 1,000 personnel), but fell by 36% for personnel aged over 50 (from 8.3 to 5.3 per 1,000 personnel).
- Rates for Officers increased by 58% from 2013/14 (1.9 per 1,000 personnel) to 3.0 per 1,000 personnel in 2014/15.
- Rates for untrained personnel declined by 38% from 1.6 per 1,000 personnel in 2013/14 to 1.0 per 1,000 personnel in 2014/15. This is compared with the overall rate for the time period of 4.2 per 1,000 personnel. This is a continuation of the decline seen in 2013/14. However, this maybe due to small numbers involved.

¹As recorded on the Joint Personnel Administration System (JPA).

²Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

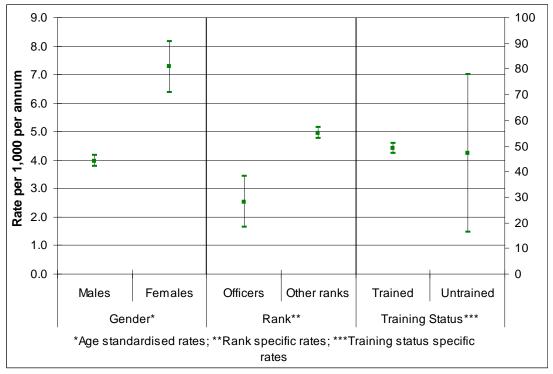
³Age and gender standardised rates are presented for each age group and gender; rank and training status specific rates are presented for each rank and training status; overall crude rates are presented for each financial year (see paragraphs 30-36).

Figure 8: UK Regular RAF medical discharges by age group, 2010/11 - 2014/15, Annualised gender standardised rates per 1,000 strength and 95% CI



Source: FMED 23 & JPA

Figure 9: UK Regular RAF medical discharges by gender, rank and training status, 2010/11 - 2014/15, Annualised gender standardised rates per 1,000 strength and 95% CI



Source: FMED 23 & JPA

88. **Figure 8** shows that during the five-year period 2010/11 - 2014/15, personnel aged 50 and over had the highest rate of medical discharge at 7.6 per 1,000 personnel. Personnel aged under 25 had significantly lower rates of medical discharge than personnel aged over 25.

ⁿ Tested using a z-test for proportions at a 95% confidence level

- 89. **Figure 9** shows that during the five-year period 2010/11 2014/15:
 - The age standardised rate of medical discharges for female personnel (7.3 per 1,000 personnel, 95%Cl=6.4-8.2) was significantly higher than male personnel (4.0 per 1,000 personnel, 95%Cl=3.8-4.2).
 - The rank specific rate of medical discharges for Other Ranks (5.0 per 1,000 personnel, 95%Cl=4.8-5.1) was significantly higher than for Officers (2.5 per 1,000 personnel, 95%Cl=1.6-3.4).
 - The training status specific rate of medical discharges for trained personnel (4.4 per 1,000 personnel, 95%Cl=4.3-4.6) was not significantly higher than for untrained personnel (4.2 per 1,000 personnel, 95%Cl=1.5-7.0).
- 90. **Table 8** presents number and proportion of medical discharges among UK Regular RAF personnel by principal ICD 10 cause code group and financial year for the five-year period 2010/11 2014/15.

Table 8: UK Regular RAF medical discharges by principal ICD 10 cause code group, 2010/11 - 2014/15, Numbers¹ and Percentages²

III Causes of medical discharge III Cause Coded medical discharges Ifectious and parasitic diseases (A00 - B99) Ieoplasms (C00 - D48) Ielood disorders (D50 - D89) Indocrine, nutritional and metabolic diseases (E00 - E90) Of Which diabetes (E10-E14)	n 854 799 ~ 18 ~ 10 7	% 100 <1 2 <1 1	n 145 129 0 ~ 0	% 100 0 <1	n 182 173	100	n 214 201	100	n 152	%	n 161	%
Il Cause Coded medical discharges fectious and parasitic diseases (A00 - B99) leoplasms (C00 - D48) lood disorders (D50 - D89) indocrine, nutritional and metabolic diseases (E00 - E90) Of Which diabetes (E10-E14)	799 ~ 18 ~ 10 7	<1 2 <1	129 0 ~	0	173			100			161	
nfectious and parasitic diseases (A00 - B99) leoplasms (C00 - D48) clood disorders (D50 - D89) cndocrine, nutritional and metabolic diseases (E00 - E90) Of Which diabetes (E10-E14)	18 ~ 10 7	<1 2 <1	0 ~	0			201	100	450			-
leoplasms (C00 - D48) clood disorders (D50 - D89) indocrine, nutritional and metabolic diseases (E00 - E90) Of Which diabetes (E10-E14)	18 ~ 10 7	2 <1	~		~			.00	150	100	146	100
clood disorders (D50 - D89) indocrine, nutritional and metabolic diseases (E00 - E90) Of Which diabetes (E10-E14)	10 7	<1		-1		<1	~	<1	0	0	0	0
indocrine, nutritional and metabolic diseases (E00 - E90) Of Which diabetes (E10-E14)	10 7		0		6	3	~	1	~	3	~	3
Of Which diabetes (E10-E14)	7	1	•	0	0	0	~	<1	0	0	0	0
· ,			~	2	~	1	~	<1	~	2	~	<1
0.000	~	<1	~	2	~	<1	~	<1	~	1	0	0
- Of which insulin-dependent (E10)		<1	~	<1	~	<1	0	0	~	1	0	0
- Of which non-Insulin-dependent (E11)	~	<1	~	<1	0	0	~	<1	0	0	0	0
fental and behavioural disorders (F00 - F99)	152	19	30	23	26	15	30	15	29	19	37	25
Of which Mood disorders (F30 - F39)	63	8	14	11	9	5	16	8	13	9	11	8
- Of Which depression (F32 & F33)	54	7	13	10	9	5	14	7	9	6	9	6
Of which Neurotic, stress related and somatoform disorders (F40 - F48)	71	9	10	8	14	8	13	6	14	9	20	14
- Of which post-traumatic stress disorder (PTSD) (F431)	19	2	~	2	~	2	~	<1	~	2	8	5
- Of which adjustment disorder (F432)	23	3	~	2	5	3	7	3	~	2	6	4
lervous system disorders (G00 - G99)	53	7	7	5	13	8	12	6	13	9	8	5
Of which epilepsy (G40)	6	<1	0	0	~	<1	~	2	~	<1	0	0
ye and adnexa diseases (H00 - H59)	6	<1	0	0	~	2	~	<1	~	<1	~	<1
Of which blindness, low vision and visual disturbance (H53 & H54)	~	<1	0	0	~	1	0	0	0	0	0	0
ar and mastoid process diseases (H60 - H95)	33	4	~	<1	6	3	10	5	11	7	~	3
Of which hearing loss (H833 & H90 - H91)	31	4	~	<1	6	3	9	4	10	7	~	3
- Of which noise-induced hearing loss (H833)	~	<1	0	0	0	0	~	<1	~	<1	0	0
Of which tinnitus (H931)	~	<1	0	0	0	0	0	0	~	<1	0	0
Sirculatory system disorders (I00 - I99)	20	3	~	2	9	5	~	1	5	3	~	<1
lespiratory system disorders (J00 - J99)	~	<1	0	0	~	<1	0	0	~	2	0	0
Of which asthma (J45 & J46)	~	<1	0	0	~	<1	0	0	0	0	0	0
ligestive system disorders (K00 - K93)	21	3	~	<1	~	2	8	4	~	2	6	4
kin and subcutaneous tissue diseases (L00 - L99)	12	2	~	2	~	1	~	2	~	<1	~	1
flusculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	433	54	73	57	94	54	118	59	72	48	76	52
Of which Injuries and disorders of the knee 3	92	12	17	13	21	12	21	10	18	12	15	10
- Of which knee pain (M2556)	45	6	11	9	7	4	9	4	9	6	9	6
Of which back pain (M549)	124	16	16	12	26	15	47	23	16	11	19	13
- Of which low back pain (M544-5)	107	13	12	9	21	12	42	21	15	10	17	12
Of which heat injury (T67)	0	0	0	0	0	0	0	0	0	0	0	0
Of which cold injury (T68 & T69)	~	<1	0	0	~	<1	~	1	0	0	0	0
Genitourinary system diseases (N00 - N99)	5	<1	~	<1	~	<1	~	<1	~	<1	~	<1
regnancy, childbirth and puerperium (O00 - O99)	0	0	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	0	0	0	0	0	0	0	0	0	0	0	0
Clinical and laboratory findings (R00 - R99)	26	3	6	5	6	3	7	3	~	2	~	3
actors influencing health status (Z00 - Z99)	~	<1	~	2	0	0	0	0	~	<1	0	0
lo details held on principle condition for medical boarding	12		0		0		0		0		12	
Vitheld consent	43		16		9		13		2		3	

Source: FMED 23

91. During the five-year period the most common cause of medical discharge for the RAF was musculoskeletal disorders and injuries with 54% (n=433) of all cause coded medical discharges.

Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

² Data presented as "<1%" represent a value of greater than 0% but smaller than 1%

³ Injuries and disorders of the knee have been compiled using ICD 10 codes M17, M22, M23, M2406, M2416, M2436, M2536, M2556, M2566, M2586, M2596, M7046, M7126, M7636, M7656, M925, S800, S820, S83, S89.

[°] Tested using a z-test for proportions at a 95% confidence level

^p Tested using a z-test for proportions at a 95% confidence level

^q Tested using a z-test for proportions at a 95% confidence level

As a proportion of all cause coded discharges.

- Back pain accounted for 29% (n=124) of all musculoskeletal disorders and injuries, of which low back pain accounted for 86% (n=107). RAF medical discharges for back pain accounted for 16% of all caused code medical discharges.
- 92. The second most common cause of medical discharge was mental and behavioural disorders with 19% (n=152) of all cause coded medical discharges during the five-year period 2010/11 2014/15. The majority of mental and behavioural disorders were made up by neurotic disorders (n=71, 47%) and mood disorders (n=63, 41%).
 - Of the mood disorders, depression accounted for 86% (n=54) and 7% of all cause coded medical discharges.
 - Of the neurotic disorders the most common were adjustment disorder (n=23, 32%) and post-traumatic stress disorder (PTSD) (n=19, 27%).
 - Mental and behavioural disorders was at its highest over the period in 2014/15 accounting for 25% (n=37).
- 93. **Table 9** presents numbers of principal and contributory causes for medical discharges among UK Regular RAF personnel by ICD 10 cause code group and financial year for 2010/11 2014/15.

Table 9: UK Regular RAF, principal and contributory^{1,2} causes for medical discharges, by ICD 10 cause code group and financial year, 2010/11 - 2014/15, Numbers^{3,4,5} and Percentages

Cause Code group and initialicial year, 2				_					2044			1/45
Cause Code Groupings	Α		2010		2011		2012		2013		2014	
All 6	n	%	n	%	n	%	n	%	n	%	n	%
All Causes of medical discharge	854 799		145		182 173		214		152 150		161	
All Cause Coded medical discharges		4	129			4	201	4		0	146	
Infectious and parasitic diseases (A00 - B99)	~	<1	0	0	~	<1	~	<1	0	0	0	0
Neoplasms (C00 - D48)	31	4	~	2	8	5	7	3	5	3	8	5
Blood disorders (D50 - D89)	6	<1	~	<1	~	2	~	<1	~	<1	0	0
Endocrine, nutritional and metabolic diseases (E00 - E90)	33	4	~	3	6	3	15	7	6	4	~	1
- Of Which diabetes (E10-E14)	13	2	~	2	~	1	~	2	~	2	~	<1
- Of which insulin-dependent (E10)	6	<1	~	2	~	<1	~	<1	~	1	0	0
- Of which non-Insulin-dependent (E11)	~	<1	~	<1	~	<1	~	<1	~	<1	0	0
Mental and behavioural disorders (F00 - F99)	242	30	43	33	46	27	57	28	46	31	50	34
- Of which Mood disorders (F30 - F39)	124	16	21	16	23	13	32	16	24	16	24	16
- Of Which depression (F32 & F33)	105	13	19	15	22	13	27	13	15	10	22	15
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	112	14	19	15	21	12	22	11	22	15	28	19
- Of which post-traumatic stress disorder (PTSD) (F431)	30	4	~	4	~	3	~	2	6	4	10	7
- Of which adjustment disorder (F432)	45	6	5	4	10	6	13	6	7	5	10	7
Nervous system disorders (G00 - G99)	92	12	12	9	24	14	20	10	22	15	14	10
- Of which epilepsy (G40)	9	1	0	0	~	1	~	2	~	<1	~	1
Eye and adnexa diseases (H00 - H59)	12	2	~	2	~	2	~	<1	~	1	~	1
- Of which blindness, low vision and visual disturbance (H53 & H54)	~	<1	~	<1	~	1	0	0	0	0	0	0
Ear and mastoid process diseases (H60 - H95)	56	7	~	<1	9	5	23	11	14	9	9	6
- Of which hearing loss (H833 & H90 - H91)	51	6	~	<1	9	5	21	10	13	9	7	5
- Of which noise-induced hearing loss (H833)	~	<1	0	0	0	0	~	1	~	<1	0	0
- Of which tinnitus (H931)	12	2	~	<1	0	0	6	3	~	1	~	2
Circulatory system disorders (I00 - I99)	40	5	~	3	12	7	12	6	7	5	~	3
Respiratory system disorders (J00 - J99)	19	2	~	2	~	<1	7	3	7	5	~	1
- Of which asthma (J45 & J46)	16	2	~	2	~	<1	6	3	5	3	~	1
Digestive system disorders (K00 - K93)	39	5	~	2	6	3	15	7	~	3	10	7
Skin and subcutaneous tissue diseases (L00 - L99)	18	2	~	3	~	2	6	3	~	1	~	2
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	503	63	84	65	107	62	135	67	85	57	92	63
- Of which Injuries and disorders of the knee ³	123	15	21	16	29	17	31	15	22	15	20	14
- Of which knee pain (M2556)	65	8	14	11	11	6	15	7	11	7	14	10
- Of which back pain (M549)	176	22	21	16	35	20	54	27	32	21	34	23
- Of which low back pain (M544-5)	145	18	17	13	25	14	48	24	27	18	28	19
- Of which heat injury (T67)	0	0	0	0	0	0	0	0	0	0	0	0
- Of which cold injury (T68 & T69)	~	<1	0	0	~	<1	~	1	0	0	0	0
Genitourinary system diseases (N00 - N99)	13	2	~	2	~	1	~	<1	~	3	~	2
Pregnancy, childbirth and puerperium (O00 - O99)	0	0	0	0	0	0	0	0	0	0	0	0
Congenital malformations (Q00 - Q99)	_	<1	0	0	~	<1	0	0	~	1	~	<1
Clinical and laboratory findings (R00 - R99)	60	8	11	9	11	6	17	8	10	7	11	8
Factors influencing health status (Z00 - Z99)	82	10	16	12	15	9	16	8	21	14	14	10
No details held on principle condition for medical boarding	12	.5	0	12	0		0		0		12	- 10
Witheld consent	43		16		9		13		2		3	
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Source: FMED 23

Therefore totals may not match those provided in Tables 1-3

⁵ Data presented as "<1%" represent a value of greater than 0% but smaller than 1%

- The most common cause grouping for Regular RAF personnel was musculoskeletal disorders and injuries, accounting for 63% of all cause coded UK Regular RAF medical discharges between 2010/11 and 2014/15. The two most prominent ICD 10 codes within this cause grouping were low back pain (M5459) and knee pain (M2556).
- The second most common cause grouping for RAF personnel was mental and behavioural disorders accounting for 30% of all cause coded UK Regular RAF medical discharges between 2010/11 and 2014/15. The most prominent ICD 10 code within this cause coding group was depressive episode, unspecified (F329).
- The number and proportion of personnel medically discharged with a principal or contributory cause of ear and mastoid process disease has seen an increase, from less than five (less than 1%) in 2010/11 to 9 (6%) in 2014/15 (with a peak of 14, 9% in 2013/14).

Personnel are only counted once per cause code grouping

² Personnel may have multiple contributory ICD 10 codes in different cause code groups associated with their medical discharge.

³ Injuries and disorders of the knee have been compiled using ICD 10 codes M17, M22, M23, M2406, M2416, M2436, M2446, M2536, M2556, M2566, M2586, M2596, M7046, M7126, M7636, M7656, M925, S800, S82, S83, S89.

Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 39).

DISCUSSION

- 97. Before using numbers of medical discharges to inform policy or audit, it is important to understand what is being measured. A medical discharge is an occupational health outcome resulting from the interaction between morbidity and Service manning requirements, and changes in patterns seen could result from either perspective. Statistics on medical discharges should therefore not be confused with measures of true incidence of pathology or morbidity in the Services. It is this mixed aspect that makes discussion of the patterns and trends seen in these statistics difficult.
- 98. An interpretation of statistics based on these discharges must also take into account the highly varied skill mix requirements of the Services to meet the UK's Defence mission. At its most simple, the requirement to deploy on sea, land, and air impose radically different assessment criteria for selecting recruits and for subsequently retaining personnel who may fall seriously ill or suffer a limiting injury. Flexibility in setting fitness levels to meet the manning requirements varies accordingly. Furthermore, as military medicine and occupational health in the Services are frequently under review, patient management and medical boarding procedures evolve, also potentially affecting the numbers and trends reported.
- 99. Having noted that the practices and protocols for recommending and awarding a medical discharge differ for each Service, this is particularly true for untrained personnel where there are no similarities between the single Services. This is thought to reflect several factors: differences in training regimes (including intra-Service and inter-Service differences in training course duration), different levels of fitness required by each Service, and differences in the main types of occupational roles and activities the Services aim to staff with the new recruits after initial training.
- 100. The crude rate of medical discharges for the Army has risen by 208% from 2010/11 to 2014/15. The rates of medical discharge in the Naval Service and RAF have increased from the previous reporting year, but remain lower than the rates seen in 2012/13.
- 101. The key trends that appeared for all three Services over the reporting period 2010/11 to 2014/15 were:
 - Non-officer ranks had a significantly higher rate of medical discharge than officers.
 - There were no specific age groups with the highest rate of medical discharge across all three Services.
 - The most common principal cause of medical discharge continued to be musculoskeletal disorders and injuries; the proportion medical discharges with this cause code grouping has remained stable over the reporting period.
 - Knee pain and Back pain were the most prominent musculoskeletal disorders.
 - The second most common cause of medical discharge was mental and behavioural disorders.
 - Neurotic and mood disorders accounted for the majority of mental and behavioural disorders.
 - The proportion of cause coded medical discharges with a principal cause of ear and mastoid process diseases has risen over the reporting period. The proportion of cause coded medical discharges with principal or contributory cause code of ear and mastoid process diseases has also risen.
- 102. It is Defence Statistics' aim to be able to investigate significant morbidity within the Armed Forces, comprising medical downgradings as well as medical discharges. While work continues in this area, Defence Statistics will release this report on an annual basis.