Medical Discharges in the UK Regular Armed Forces
2007/08 - 2011/12

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INTRODUCTION

1.   This report provides statistical information on medical discharges among UK Regular Service personnel during the five financial years 2007/08 - 2011/12. 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 cause leading to discharge

2.   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 between the three Services, comparisons between the single Service statistics are judged to be invalid.

3.   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.

4.   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.

5.   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 Service Personnel and Veterans' Agency (SPVA)[b]. DASA produce bi-annual reports on the Armed Forces Compensation Scheme and annual reports on War Pension Scheme which can be found on the DASA website.

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[a] As laid down in JSP 346 and/or the single Services retention standards for their career group.
[b] JSP 950 Leaflet 6-7-6 'Harmonisation of Medical Boards Leading to Discharge'

6. This report has been provided in response to regular requests for information about UK Service personnel medically discharged from the Armed Forces.

KEY POINTS

Naval Service

7. During the five year reporting period 2007/08 - 2011/12, a total of 1,481 Naval Service personnel were medically discharged, at an overall crude rate of 7.8 per 1,000 personnel. There were certain sub-groups where the rates of medical discharges were higher: personnel aged between 25 and 39, females, Other (non-Officer) Ranks, and untrained personnel.

8. During the latest financial year 2011/2012 there has been a rise in both the number and the crude rate of Naval Service personnel medically discharged, when compared to the four previous financial years. This rise has been seen across all sub-groups with the exception of personnel aged under 20 and untrained personnel. The rise seen in these sub-groups is likely to be a result of changes in policy and practices in the Medical Boarding process.

9. During 2011/12 the most noticeable changes in sub-groups were:
   - The number and rate of female personnel medically discharged; in 2011/12, 75 personnel were discharged at a rate of 21.9 per 1,000 strength, this compares with a rate for the overall time period of 11.5 per 1,000 strength.
   - The number and rate of Other (non-Officer) Ranks medically discharged; in 2011/12, 438 personnel were discharged at a rate of 14.9 per 1,000 strength, this compares with a rate for the overall time period of 9.1 per 1,000 strength.

10. Musculoskeletal disorders and injuries was the most common principal cause of medical discharge from the Naval Service during the reporting period (869 cases, or 59% of all cause coded Naval Service medical discharges). Mental and behavioural disorders (167 cases, or 11% of all cause coded Naval Service medical discharges) was the second most common principal cause of medical discharge.

Army

11. During the five year reporting period 2007/08 - 2011/12, a total of 4,439 Army personnel were medically discharged, at an overall crude rate of 8.1 per 1,000 personnel. There were certain sub-groups where the rates of medical discharge were higher: personnel aged under 25, females, Other (non-Officer) Ranks and untrained personnel.

12. Annual numbers and crude rates of medical discharge fluctuated each year. The annual number and rate of medical discharge was highest in 2007/08 (n = 1,118, rate = 10.3 per 1,000 strength), they have decreased until 2009/10 and then have shown a rise again over the last two years with 2011/12 recording 963 medical discharges at a rate of 8.8 per 1,000 strength. This change over this time period is likely to reflect changes in policy and practices in the Medical Boarding process.

13. During 2011/12, the most noticeable changes amongst subgroups include:
   - The rate of medical discharge for personnel aged 25 and over has risen. Although the rates of medical discharge are still highest amongst personnel under 25.
   - The rate of medical discharges amongst females and males is now roughly the same, 8.9 and 8.8 per 1,000 strength respectively; whilst in the overall time period females had a higher rate of medical discharge than males, 10.0 and 7.6 per 1,000 strength respectively.

14. Musculoskeletal disorders and injuries was the most common principal cause of medical discharge from the Army during the reporting period 2007/08 - 2011/12 (2,615 cases, or 60% of all cause coded Army medical discharges). Mental and behavioural disorders (633 cases, or 15% of all cause coded Army medical discharges) was the second most common principal cause of medical discharge.

RAF

15.   During the five year reporting period 2007/08 - 2011/12, a total of 913 RAF personnel were medically discharged, at an overall crude rate of 4.2 per 1,000 personnel. There were certain sub-groups where the rates of medical discharge were higher: personnel aged over 50, females, Other (non-Officer) Ranks and untrained personnel.

16.   During 2011/12, the same demographic subgroups had higher rates of medical discharge; personnel aged over 50, females, Other (non-Officer) Ranks and untrained personnel. However the difference between a number of these rates has reduced in this time period:
- The rate of medical discharges amongst males and females in 2011/12 was 4.2 and 5.4 per 1,000 strength respectively; whilst in the overall time period females had a much higher rate of medical discharge than males, 3.6 and 8.2 per 1,000 strength respectively.
- The rate of medical discharges amongst Officers and other Ranks in 2011/12 was 2.8 and 4.9 per 1,000 strength respectively; whilst in the overall time period Officers had a lower rate of medical discharge than other ranks, 1.8 and 4.9 per 1,000 strength respectively.
- The rate of medical discharges amongst trained and untrained personnel in 2011/12 was 4.3 and 5.2 per 1,000 strength respectively; whilst in the overall time period trained personnel had a lower rate of medical discharge than untrained personnel, 4.0 and 7.0 per 1,000 strength respectively.

17.   Musculoskeletal disorders and injuries was the most common reason for medical discharges from the RAF during the reporting period (450 cases, or 55% of all cause coded RAF medical discharges). Mental and behavioural disorders (164 cases, or 20% of all cause coded RAF medical discharges), was the second most common cause for medical discharge.

DATA, DEFINITIONS AND METHODS

18.   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.

19.   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.

20.   Information on potential hazardous exposure is not generally available and medical boards are not called upon to decide possible attribution of medical conditions. Therefore this report focuses on general risk factors and on medical causes only. It does not offer analyses of the external causes of injury-related conditions, nor does it speculate on the aetiology of conditions that could have potentially resulted from exposure to hazardous substances in the course of duty.

Data sources for medical discharges

21.   Data are compiled by DASA from two sources:
    a) Monthly downloads from JPA (Joint Personnel Administration) system are used to determine the number of medical discharges for each Service.
    b) Medical documents (FMed 23s), raised for each individual by Service medical boards, are copied to DASA provided the consent of the individual was given. Individuals that withhold consent are captured on DASA's database with no clinical information recorded. Where consent is given, the individual's condition(s) that led to the medical board is entered onto DASA's database. This report concentrates exclusively on the medical information provided on the FMed 23 as the "Principal condition that led to the board" and does not analyse any possible co-morbidity.

Population

22.   In this report Regular Service personnel include all Regulars (trained and untrained). Royal Navy and Royal Marines personnel are recorded as Naval Service personnel; Naval Activated Reservists are excluded. Army Regular personnel include Ghurkha Regiments; known members of the Home Service of the Royal Irish Regiment, mobilised Reservists, full time Reservists and the Territorial Army are excluded. RAF Reservists are also excluded.

23.   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.

24.   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.

Cause coding of medical conditions

25.   The International Classification of Diseases & Related Health Problems version 10 (ICD 10) was used to classify medical discharges with a principal cause leading to discharge. As a result of public interest some ICD-10 groups have been provided in more detail allowing the presentation of specific conditions.

26.   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 DASA. 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 DASA, therefore their principal condition leading to medical discharge is not presented. In Tables 2, 4 and 6 these are indentified by the field labelled 'Withheld Consent'.

27.   There are also occasions when DASA 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, 4 and 6 these records are indentified by the field labelled 'No Details held on principal condition for medical boarding'.

28.   Early in 2012 DASA carried out a review to identify any potential duplicate medical discharge records, i.e. where JPA recorded a person as having left the Armed Forces more than once within an certain time period e.g. less than 6 months. Less than five personnel were found to have duplicate records, this is likely to be due to their date of exit being delayed. In these instances the latest record was retained in DASA's dataset with all earlier records removed. The relevant numbers in **Tables 3, 4, 5 and 6** have been revised accordingly and are de-noted as 'r'.

Denominator data

29.   In order to calculate rates, extracts of all Regular Service personnel (strengths data) were taken from DASA's personnel databases that hold information supplied by the Joint Personnel Administration (JPA) system. Strengths data for 2009-2012 held on JPA are provisional and currently subject to review.

30.   Whilst FMed23 forms received by DASA do include some Reservists, the number and coverage of Reservists captured is currently unknown and reliable denominator data is not available. Therefore, numbers and rates have been calculated using only strengths for Regular personnel and for this report all known Reservists have been removed. However, there may be a presence of a small unknown number of Reservists within the medical discharge dataset which may cause a small bias in the results.

Statistical methods

Rates

31. Crude rates are presented for overall totals of medical discharges each year for each Service. 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 Service strengths for each year).

32. 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 2011/12.

33. 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 2011/12.

34. 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).

35. All rates presented for each group have been "annualised" to enable rates for the overall 5-year period of this study to be compared with rates for individual years. Note that standardisation has not been carried out by Service. For technical reasons, this renders comparisons between the Services invalid, reflecting advice received from the single Services that such comparisons are inappropriate.

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 and the possibility that it is different or not from another to which it is being compared. These confidence intervals have been calculated based on the Normal approximation where there were more than 30 cases, and on the Poisson distribution in other instances[c]. They provide the range of values within which we expect to find the real value of the indicator under consideration in the study with a probability of 95%. Thus two rates where their 95% CI do not overlap are described as being "significantly different". In this report, the term "significantly" is only used in this context of statistical significance.

Tables

38. The tables in this report have been scrutinised to ensure individual identities have not been revealed inadvertently. In line with DASA's 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 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.

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[c] Pearson ES, Hartley HO, 1954. Biometrika tables for statisticians volume I. Cambridge: Cambridge University Press.

FINDINGS

39.   This report presents descriptive statistical information on the causes and trends of medical discharges among the UK regular Armed Forces. There were 6,833 medical discharges in total during the five year period 2007/08 - 2011/12 for the three Services (annual mean=1,367, these constitute approximately 8% of all exits from the Armed Forces in any year). The findings for each Service are presented separately.

Naval Service

40.   **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 2007/08 - 2011/12.

Table 1: UK regular Naval Service medical discharges[1] by age group[1], gender[1], rank[1] and training status[1], 2007/08 - 2011/12, Numbers[2] and Rates[3] per 1,000 strength

	All Years		2007/08		2008/09		2009/10		2010/11		2011/12	
	n	r	n	r	n	r	n	r	n	r	n	r
All	1,481	7.8	299	7.7	216	5.6	206	5.3	290	7.5	470	12.8
Under 20	29	2.7	12	4.7	~	2.0	~	2.5	~	2.1	~	1.7
20-24	303	7.0	63	7.1	53	6.1	48	5.4	56	6.4	83	10.2
25-29	390	9.4	85	10.9	49	6.1	51	6.1	77	8.9	128	14.9
30-34	256	9.7	46	8.6	33	6.5	29	5.7	48	9.0	100	17.6
35-39	272	8.8	59	8.5	53	7.9	33	5.3	58	9.9	69	13.4
40-44	142	6.5	25	5.8	13	3.0	24	5.6	26	5.9	54	12.0
45-49	68	5.6	~	3.6	~	3.4	12	4.9	16	6.3	24	9.2
50+	21	5.3	~	1.6	~	2.9	~	3.6	~	5.5	~	10.9
Male	1,267	7.5	263	7.5	185	5.3	181	5.2	243	7.0	395	11.8
Female	214	11.5	36	9.8	31	8.5	25	6.8	47	12.9	75	21.9
Officers	89	2.4	20	2.7	8	1.1	10	1.3	19	2.5	32	4.4
Other ranks	1,392	9.1	279	9.0	208	6.7	196	6.3	271	8.8	438	14.9
Trained	1,299	7.5	251	7.3	167	4.9	163	4.7	269	7.6	449	13.0
Untrained	182	10.4	48	11.4	49	12.4	43	11.0	21	6.6	21	9.3

[1]As recorded on the Joint Personnel Administration System (JPA).
[2]Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 38).
[3]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 31-35).

41.   During the five-year period 2007/08 - 2011/12, a total of 1,481 Naval Service personnel were medically discharged, at an overall crude rate of 7.8 per 1,000 personnel. There were certain sub-groups where the rates of medical discharges were higher; personnel aged 25-39, females, other (non-Officer) ranks and untrained personnel.

42.   During the latest financial year 2011/12 there has been a rise in both the number and the crude rate of Naval Service personnel medically discharged, when compared to the four previous financial years. This rise has been seen across all sub-groups with the exception of personnel aged under 20 and untrained personnel[d]. The most noticeable rises have been seen in:
- The number and rate of female personnel medically discharged; in 2011/12, 75 personnel were discharged at a rate of 21.9 per 1,000 strength, this compares with a rate for the overall time period of 11.5 per 1,000 strength.
- The number and rate of Other (non-Officer) Ranks medically discharged; in 2011/12, 438 personnel were discharged at a rate of 14.9 per 1,000 strength, this compares with a rate for the overall time period of 9.1 per 1,000 strength.

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[d] The number and rates for these subgroups in 2011/12 are comparable with previous years. There has also been a reduction in the intake numbers during this time period, therefore a reduction in training activities (risk factor for injury) for young untrained personnel.

- The number and rate of trained personnel medically discharged; in 2011/12, 449 personnel were discharged at a rate of 13.0 per 1,000 strength, this compares with a rate for the overall time period of 7.5 per 1,000 strength.

43. The rise seen in these sub-groups is likely to be a result of changes in policy and practices in the Medical Boarding process.

Figure 1: UK Regular Naval Service medical discharges by age group, 2007/08 - 2011/12, Annualised gender-standardised rates and 95% CI

Figure 2: UK Regular Naval Service medical discharges by gender, rank and training status, 2007/08 - 2011/12, Annualised gender-standardised rates and 95% CI

*Age standardised rates; **Rank specific rates; ***Training status specific rates
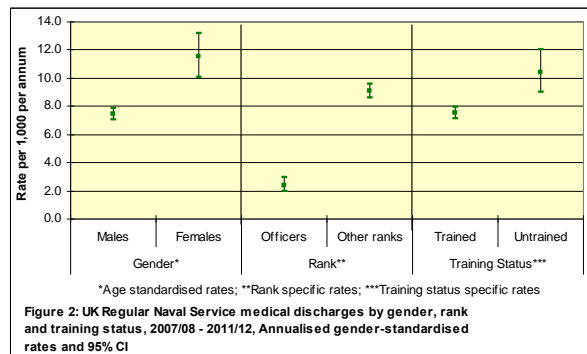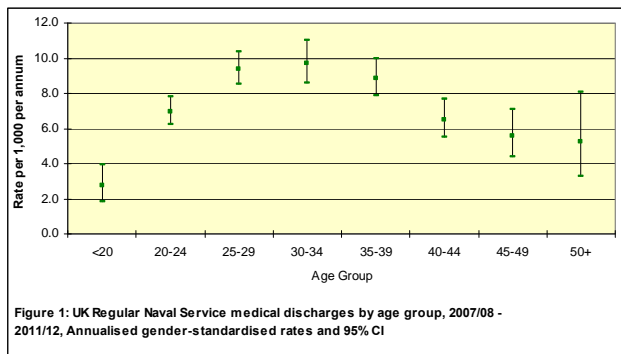
44. **Figure 1** shows that during the five-year period 2007/08 - 2011/12, the gender standardised rates of medical discharges for personnel aged between 25 and 39 were higher than other age groups. The rates for those aged between 25 and 39 is thought to reflect the requirement for Naval Service personnel 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.

45. **Figure 2** shows that during the five-year period 2007/08 - 2011/12:
- The age standardised rate of medical discharges for female personnel (11.5 per 1,000 personnel, 95%CI=10.1-13.2) was significantly higher than for male personnel (7.5 per 1,000 personnel, 95%CI=7.1-7.9).
- The rank specific rate of medical discharges for Other Ranks (9.1 per 1,000 personnel, 95%CI=8.6-9.6) was significantly higher than for Officers (2.4 per 1,000 personnel, 95%CI=1.9-2.9).
- The training status specific rate of medical discharges for untrained personnel (10.4 per 1,000 personnel, 95%CI=9.0-12.0) was significantly higher than for trained personnel (7.5 per 1,000 personnel, 95%CI=7.1-7.9).

46. **Table 2** presents numbers of medical discharges among UK regular Naval Service personnel by principal ICD 10 cause code group and financial year for the five-year period 2007/08 - 2011/12.

Table 2: UK regular Naval Service medical discharges by principal ICD 10 cause code group, 2007/08- 2011/12, Numbers[1]

	All	2007/08	2008/09	2009/10	2010/11	2011/12
All Causes of medical discharge	**1,481**	**299**	**216**	**206**	**290**	**470**
All Cause Coded medical discharges	**1,468**	**292**	**212**	**205**	**290**	**469**
Infectious and parasitic diseases (A00 - B99)	**9**	0	~	~	~	5
Neoplasms (C00 - D48)	**15**	~	~	~	~	7
Blood disorders (D50 - D89)	**~**	0	0	~	~	~
Endocrine, nutritional and metabolic diseases (E00 - E90)	**32**	6	~	9	~	8
- Of Which diabetes (E10-E14)	*27*	*6*	*~*	*7*	*~*	*7*
- Of which insulin-dependent (E10)	*17*	*5*	*~*	*~*	*~*	*~*
- Of which non-Insulin-dependent (E11)	*9*	*0*	*~*	*~*	*~*	*~*
Mental and behavioural disorders (F00 - F99)	**167**	36	29	21	42	39
- Of which Mood disorders (F30 - F39)	*68*	*15*	*11*	*9*	*17*	*16*
- Of Which depression (F32 & F33)	*60*	*13*	*9*	*8*	*16*	*14*
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	*72*	*16*	*13*	*7*	*19*	*17*
- Of which post-traumatic stress disorder (PTSD) (F431)	*28*	*7*	*~*	*~*	*7*	*6*
- Of which adjustment disorder (F432)	*16*	*~*	*5*	*~*	*~*	*~*
Nervous system disorders (G00 - G99)	**64**	15	9	12	11	17
- Of which epilepsy (G40)	*25*	*9*	*~*	*~*	*~*	*5*
Eye and adnexa diseases (H00 - H59)	**16**	~	0	~	~	7
- Of which blindness, low vision and visual disturbance (H53 & H54)	*5*	*~*	*0*	*0*	*~*	*~*
Ear and mastoid process diseases (H60 - H95)	**54**	~	7	7	~	32
- Of which hearing loss (H833 & H90 - H91)	*50*	*~*	*6*	*7*	*~*	*30*
- Of which noise-induced hearing loss (H833)	*23*	*0*	*~*	*~*	*~*	*16*
- Of which tinnitus (H931)	*~*	*0*	*~*	*0*	*0*	*0*
Circulatory system disorders (I00 - I99)	**42**	8	~	~	10	13
Respiratory system disorders (J00 - J99)	**33**	~	~	7	~	12
- Of which asthma (J45 & J46)	*29*	*~*	*~*	*~*	*~*	*11*
Digestive system disorders (K00 - K93)	**31**	~	~	~	8	14
Skin and subcutaneous tissue diseases (L00 - L99)	**39**	9	~	~	7	14
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	**869**	187	138	116	166	262
- Of which Injuries and disorders of the knee [2]	*255*	*58*	*39*	*26*	*42*	*90*
- Of which knee pain (M2556)	*85*	*16*	*12*	*13*	*13*	*31*
- Of which back pain (M549)	*113*	*28*	*13*	*20*	*26*	*26*
- Of which low back pain (M544-5)	*92*	*23*	*12*	*15*	*20*	*22*
- Of which heat injury (T67)	*0*	*0*	*0*	*0*	*0*	*0*
- Of which cold injury (T68 & T69)	*13*	*~*	*5*	*~*	*~*	*~*
Genitourinary system diseases (N00 - N99)	**13**	~	0	0	~	8
Pregnancy, childbirth and puerperium (O00 - O99)	**~**	~	0	0	0	0
Congenital malformations (Q00 - Q99)	**12**	~	~	~	~	~
Clinical and laboratory findings (R00 - R99)	**49**	8	6	7	9	19
Factors influencing health status (Z00 - Z99)	**14**	~	0	~	6	6
No details held on principle condition for medical boarding	**13**	7	~	~	0	~
Witheld consent	**0**	0	0	0	0	0

[1] Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 38)
[2] 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, S83, S89

47.   During the five-year period the most common cause of medical discharge for the Naval Service was musculoskeletal disorders and injuries with 59% (n=869) of all cause coded medical discharges. Injuries and disorders of the knee accounted for 29% (n=255) of all musculoskeletal disorders and injuries, of which knee pain accounted for 33% (n=85). Back pain accounted for 13% (n=113) of all musculoskeletal disorders and injuries, of which low back pain accounted for 81% (n=92).

48.   Medical discharges attributable to cold injuries accounted for 1% (n=13) of all musculoskeletal disorders and injuries and less than 1% of all cause coded medical discharges. There were no medical discharges during the reporting period attributable to heat injuries.

49.   The second most common cause of medical discharge was mental and behavioural disorders with 11% (n=167) of all cause coded medical discharges. The majority of mental and behavioural disorders were the result of neurotic disorders (n=72, 43%) and mood disorders (n=68, 41%).
   - Of the neurotic disorders the most common were post-traumatic stress disorder (PTSD) (n=28, 39%) and adjustment disorder (n=16, 22%). However, these disorders each made up only 3% of all cause coded medical discharges.
   - Of the mood disorders, depression accounted for 88% (n=60) and accounted for 4% of all cause coded medical discharges.

50.   Hearing loss accounted for 93% (n=50) of all diseases of the ear and mastoid process, of which noise-induced hearing loss accounted for 46% (n=23). Medical discharges attributable to diseases of the ear and mastoid process only accounted for 4% (n=54) of all cause-coded medical discharges.

51.   Causes of medical discharge for the Naval Service have been scrutinised in order to identify whether any specific causes have contributed to the rise in the number of Naval Service personnel medically discharged during the latest financial year 2011/2012. The most noticeable rises in cause groups have been seen in:
- Musculoskeletal disorders and injuries, with 262 Naval Service personnel medically discharged in 2011/12 compared to the mean average over the five year period of 174.
- Ear and mastoid process diseases, 32 Naval Service personnel medically discharged in 2011/12 compared to the mean average over the five year period of 11.

Army

52.   **Table 3** 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 2007/08 - 2011/12.

Table 3: UK regular Army medical discharges[1] by age group[1], gender[1], rank[1] and training status[1], 2007/08 - 2011/12, Numbers[2] and Rates[3] per 1,000 strength

	All Years		2007/08		2008/09		2009/10		2010/11		2011/12	
	n	r	n	r	n	r	n	r	n	r	n	r
All	4,439	8.1	1,118	10.3	839 [r]	7.7	685 [r]	6.1	834	7.5	963	8.8
Under 20	1,099	20.5	360	29.1	246	20.9	181	15.4	164	17.4	148	17.5
20-24	1,532	10.8	378	13.5	284 [r]	10.2	268	9.1	324	11.2	278	9.9
25-29	821	6.6	175	7.2	153	6.3	119 [r]	4.8	175	7.0	199	7.9
30-34	430	4.9	87	5.3	61 [r]	3.7	48	2.8	80	4.3	154	8.0
35-39	301	3.7	75	4.4	51	3.0	38	2.3	43	2.7	94	6.4
40-44	184	4.8	27	4.2	34	4.9	22	2.8	36	4.2	65	7.3
45-49	37	2.7	9	3.4	~	1.5	~	1.4	~	1.3	16	5.2
50+	35	4.3	7	4.8	~	3.9	~	3.0	~	4.6	9	5.1
Male	4,003	7.6	997	9.9	752 [r]	7.5	617	6.0	750	7.3	887	8.8
Female	436	10.0	121	14.7	87	10.6	68 [r]	8.0	84	9.9	76	8.9
Officers	168	2.3	47	3.2	37	2.5	28	1.9	28	1.9	28	1.9
Other ranks	4,271	9.0	1,071	11.4	802 [r]	8.5	657 [r]	6.8	806	8.4	935	9.9
Trained	2,082	4.2	479	4.9	351 [r]	3.6	266	2.7	410	4.0	576	5.8
Untrained	2,357	44.9	639	57.2	488	44.8	419 [r]	34.9	424	47.4	387	41.0

[1] As recorded on the Joint Personnel Administration System (JPA).
[2] Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 38).
[3] 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 paragraph 31-35).
[r] Revised due to identification of duplicate discharge record (see paragraph 28).

53.   During the five-year period 2007/08 - 2011/12, a total of 4,439 Army personnel were medically discharged, at an overall crude rate of 8.1 per 1,000 personnel. There were certain sub-groups where the rates of medical discharges were higher; personnel aged under 25, females, other (non-Officer) ranks and untrained personnel.

54.   Annual numbers and crude rates of medical discharge fluctuated each year. The annual number and rate of medical discharge was highest in 2007/08 (n = 1,118, rate = 10.3 per 1,000 strength), they have decreased until 2009/10 and then have shown a rise again over the last two years with 2011/12 recording 963 medical discharges at a rate of 8.8 per 1,000 strength. This change over this time period is likely to reflect changes in policy and practices in the Medical Boarding process.

55.   During 2011/12, the most noticeable changes amongst subgroups include:
   - The rate of medical discharge for personnel aged 25 and over has risen. Although the rates of medical discharge were still highest amongst personnel under 25.
   - The rate of medical discharges amongst males and females is now roughly the same, 8.8 and 8.9 per 1,000 strength respectively; whilst in the overall time period females had a higher rate of medical discharge than males, 7.6 and 10.0 per 1,000 strength respectively.

Figure 3: UK Regular Army medical discharges by age group, 2007/08 - 2011/12, Annualised gender-standardised rates and 95% CI

Figure 4: UK Regular Army medical discharges by gender, rank and training status, 2007/08 - 2011/12, Annualised gender-standardised rates and 95% CI
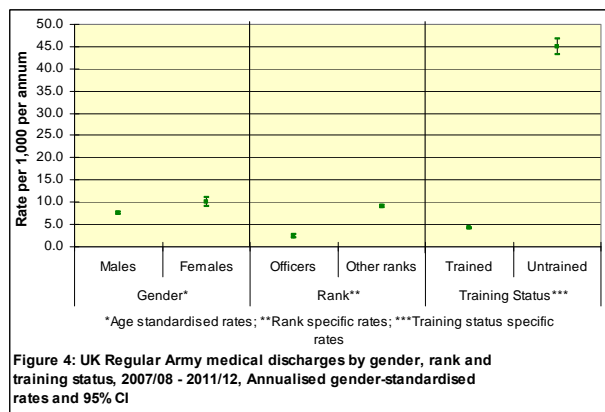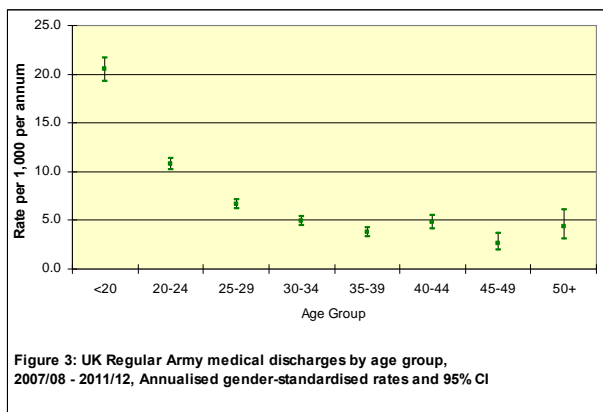
56.   **Figure 3** shows that during the five year reporting period 2007/08 - 2011/12, the gender standardised rates of medical discharges for personnel in each age group under 30 were higher than for personnel in each age group 30 years and over and those aged under 25 were significantly higher than older age groups.

57.   **Figure 4** shows that during the five-year period 2007/08 - 2011/12:
* The age standardised rate of medical discharges for female personnel (10.0 per 1,000 personnel, 95% CI=9.1-11.0) was significantly higher than for male personnel (7.6 per 1,000 personnel, 95% CI=7.4-7.8).
* The rank specific rate of medical discharges for Other Ranks (9.0 per 1,000 personnel, 95% CI=8.7-9.3) was significantly higher than for Officers (2.3 per 1,000 personnel, 95% CI=2.0-2.6).
* The training status specific rate of medical discharges for untrained personnel (44.9 per 1,000 personnel, 95% CI=43.2-46.8) was significantly higher than for trained personnel (4.2 per 1,000 personnel, 95% CI=4.0-4.4).

58.   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.

59.   The higher rate of discharge seen amongst the younger age-groups is likely to have been influenced by the findings for trainees mentioned above, as basic training at recruitment occurs mostly among young personnel. For older personnel, these findings are likely to reflect the different nature of the roles played by older Army personnel compared to their younger colleagues, and the ability of the Army to retain experienced personnel in a downgraded capacity if necessary.

60.   **Table 4** presents numbers of medical discharges among UK Regular Army personnel by principal ICD 10 cause code group and financial year for the five year period 2007/08 - 2011/12.

Table 4: UK regular Army medical discharges by principal ICD 10 cause code group, 2007/08-2011/12, Numbers[1]

	All	2007/08	2008/09	2009/10	2010/11	2011/12
All Causes of medical discharge	**4,439**	**1,118**	**839** ʳ	**685** ʳ	**834**	**963**
All Cause Coded medical discharges	**4,338**	**1,057**	**809** ʳ	**677** ʳ	**832**	**963**
Infectious and parasitic diseases (A00 - B99)	**27**	6	~	~	~	8
Neoplasms (C00 - D48)	**33**	7	7	~	~	11
Blood disorders (D50 - D89)	**9**	0	~	~	~	~
Endocrine, nutritional and metabolic diseases (E00 - E90)	**36**	9	~	~	7	13
- Of Which diabetes (E10-E14)	*20*	*~*	*~*	*~*	*~*	*7*
- Of which insulin-dependent (E10)	*16*	*~*	*~*	*~*	*~*	*6*
- Of which non-Insulin-dependent (E11)	*~*	*0*	*0*	*~*	*~*	*~*
Mental and behavioural disorders (F00 - F99)	**633**	139	140	102 ʳ	128	124
- Of which Mood disorders (F30 - F39)	*186*	*51*	*37*	*25*	*33*	*40*
- Of Which depression (F32 & F33)	*143*	*42*	*31*	*17*	*25*	*28*
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	*334*	*63*	*71*	*60*	*71*	*69*
- Of which post-traumatic stress disorder (PTSD) (F431)	*156*	*21*	*32*	*26*	*33*	*44*
- Of which adjustment disorder (F432)	*51*	*12*	*10*	*12*	*9*	*8*
Nervous system disorders (G00 - G99)	**174**	61	20	31	23	39
- Of which epilepsy (G40)	*63*	*22*	*6*	*11*	*11*	*13*
Eye and adnexa diseases (H00 - H59)	**51**	14	7	7	10	13
- Of which blindness, low vision and visual disturbance (H53 & H54)	*24*	*7*	*~*	*~*	*5*	*6*
Ear and mastoid process diseases (H60 - H95)	**164**	23	21	17	37	66
- Of which hearing loss (H833 & H90 -H91)	*153*	*21*	*18*	*17*	*34*	*63*
- Of which noise-induced hearing loss (H833)	*62*	*7*	*~*	*~*	*14*	*33*
- Of which tinnitus (H931)	*~*	*0*	*0*	*0*	*0*	*~*
Circulatory system disorders (I00 - I99)	**94**	21	17	8	26	22
Respiratory system disorders (J00 - J99)	**78**	22	10	16	14	16
- Of which asthma (J45 & J46)	*69*	*19*	*10*	*11*	*13*	*16*
Digestive system disorders (K00 - K93)	**63**	14	13	8	11	17
Skin and subcutaneous tissue diseases (L00 - L99)	**67**	9	15	11	13	19
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	**2,615**	664	498 ʳ	405	496	552
- Of which Injuries and disorders of the knee [2]	*582*	*143*	*100* ʳ	*89*	*134*	*116*
- Of which knee pain	*275*	*78*	*53*	*42*	*62*	*40*
- Of which back pain (M549)	*336*	*95*	*61*	*46*	*62*	*72*
- Of which low back pain (M544-5)	*214*	*49*	*36*	*33*	*40*	*56*
- Of which heat injury (T67)	*10*	*0*	*~*	*~*	*~*	*~*
- Of which cold injury (T68 & T69)	*203*	*62*	*61*	*28*	*16*	*36*
Genitourinary system diseases (N00 - N99)	**24**	8	~	~	6	7
Pregnancy, childbirth and puerperium (O00 - O99)	**0**	0	0	0	0	0
Congenital malformations (Q00 - Q99)	**18**	0	~	6	~	5
Clinical and laboratory findings (R00 - R99)	**200**	55	37	37	36	35
Factors influencing health status (Z00 - Z99)	**52**	5	6	18	9	14
No details held on principle condition for medical boarding	**93**	60	29	~	~	0
Witheld consent	**8**	~	~	5	~	0

[1] Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 38)
[2] 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, S83, S89.
ʳ Revised due to identification of duplicate discharge record (see paragraph 28).

61.   During the five-year period the most common cause of medical discharge for the Army was musculoskeletal disorders and injuries with 60% (n=2,615) of all cause coded medical discharges. The fall and rise in the number of medical discharges each year over the five year time period for musculoskeletal disorders and injuries showed the same pattern as the overall number of medical discharges. Within this cause group:
-    Injuries and disorders of the knee accounted for 22% (n=582) of all musculoskeletal disorders and injuries, of which knee pain accounted for 47% (n=275).
-    Back pain accounted for 13% (n=336) of all musculoskeletal disorders and injuries, of which low back pain accounted for 64% (n=214).

62.   Medical discharges attributable to cold injuries accounted for 8% (n=203) of all musculoskeletal disorders and injuries and 5% of all cause coded medical discharges. Less than 0.25% (n=10) of all cause coded medical discharges were attributable to heat injuries.

63.   The second most common cause of medical discharge was mental and behavioural disorders with 15% (n=633) of all cause coded medical discharges. The majority of mental and behavioural disorders were made up by neurotic disorders (n=334, 53%) and mood disorders (n=186, 29%).

- Of the neurotic disorders the most common were post-traumatic stress disorder (PTSD) (n=156, 47%) and adjustment disorder (n=51, 15%). However, these disorders made up only 5% of all cause coded medical discharges.
- Of the mood disorders, depression accounted for 77% (n=143) and accounted for 3% of all cause coded medical discharges.

64.   Causes of medical discharge for the Army have been scrutinised in order to identify whether any specific causes have shown changes over the five year period, of particular note is the number of discharges with ear and mastoid process diseases. These have increased in the last two financial years; 37 in 2010/11 and 66 in 2011/12, compared with an annual mean of 33. This change over this time period is likely to reflect changes in policy and practices and the work underway by the Defence Hearing Working Group.

RAF

65.   **Table 5** 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 2007/08 - 2011/12.

Table 5: UK regular RAF medical discharges[1] by age group[1], gender[1], rank[1] and training status[1], 2007/08 - 2011/12, Numbers[2] and Rates[3] per 1,000 strength

	All Years		2007/08		2008/09		2009/10		2010/11		2011/12	
	n	r	n	r	n	r	n	r	n	r	n	r
All	913	4.2	212	4.8	195 [r]	4.5	179	4.1	145	3.3	182	4.4
Under 20	29	4.0	~	5.0	~	4.4	13	6.0	~	2.5	0	0.0
20-24	153	4.0	44	5.6	34	4.6	38	5.1	18	2.4	19	2.7
25-29	183	4.0	34	3.7	41 [r]	4.4	33	3.6	38	4.1	37	4.1
30-34	124	3.8	32	5.0	28	4.6	24	3.7	13	1.9	27	3.7
35-39	139	3.8	37	4.2	29	3.5	23	3.1	25	3.7	25	4.1
40-44	154	5.5	31	5.3	33	5.8	22	3.8	30	5.1	38	6.7
45-49	71	4.2	16	4.9	13	3.9	15	4.4	9	2.6	18	5.3
50+	60	6.3	~	7.4	~	5.6	11	5.8	~	3.9	18	8.7
Male	685	3.6	162	4.2	135	3.6	136	3.6	101	2.7	151	4.2
Female	228	8.2	50	8.7	60 [r]	10.5	43	7.2	44	7.4	31	5.4
Officers	89	1.8	19	2.0	16	1.7	15	1.5	13	1.3	26	2.8
Other ranks	824	4.9	193	5.6	179 [r]	5.3	164	4.8	132	3.9	156	4.9
Trained	802	4.0	199	4.8	169 [r]	4.3	135	3.4	128	3.2	171	4.3
Untrained	111	7.0	13	4.9	26	7.0	44	10.2	17	5.6	11	5.2

[1]As recorded on the Joint Personnel Administration System (JPA).
[2]Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 38).
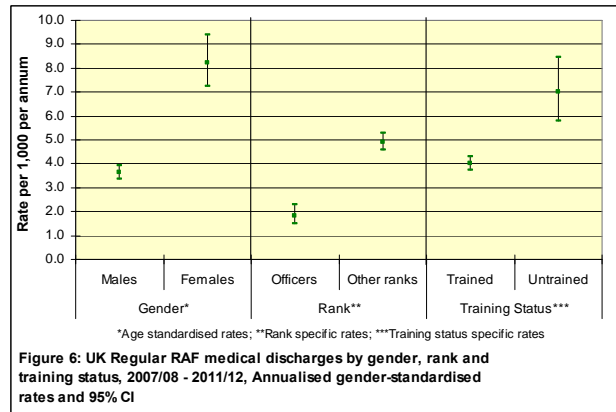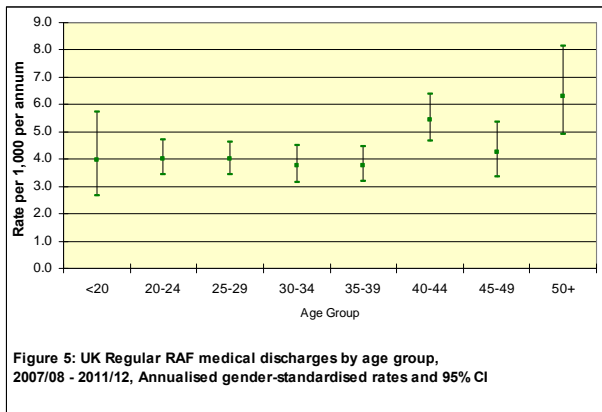[3]Age and gender standardised rates are presented for each age group and gender; rank and training status specific rates are presented for each rank and training status; overall crude rates are presented for each financial year (see paragraphs 31-35).
[r]Revised due to identification of duplicate discharge record (see paragraph 28).

66.   During the five-year period 2007/08 - 2011/12, a total of 913 RAF personnel were medically discharged, at an overall crude rate of 4.2 per 1,000 personnel. Overall annual numbers have decreased by 14% over the reporting period 2011/12 (n=182) from 2007/08 (n=212). However, crude rates of medical discharge have remained stable. There were certain sub-groups where the rates of medical discharge were higher: personnel aged over 50, females, Other (non-Officer) Ranks and untrained personnel.

67.   During 2011/12, the same demographic subgroups have higher rates of medical discharge; personnel aged over 50, females, Other (non-Officer) Ranks and untrained personnel. However the difference between a number of these rates has reduced in this time period:
   - The rate of medical discharges amongst males and females in 2011/12 was 4.2 and 5.4 per 1,000 strength respectively; whilst in the overall time period females had a higher rate of medical discharge than males, 3.6 and 8.2 per 1,000 strength respectively.
   - The rate of medical discharges amongst Officers and other Ranks in 2011/12 was 2.8 and 4.9 per 1,000 strength respectively; whilst in the overall time period Officers had a lower rate of medical discharge than other ranks, 1.8 and 4.9 per 1,000 strength respectively.
   - The rate of medical discharges amongst trained and untrained personnel in 2011/12 was 4.3 and 5.2 per 1,000 strength respectively; whilst in the overall time period trained personnel had a lower rate of medical discharge than untrained personnel, 4.0 and 7.0 per 1,000 strength respectively.

Figure 5: UK Regular RAF medical discharges by age group, 2007/08 - 2011/12, Annualised gender-standardised rates and 95% CI

Figure 6: UK Regular RAF medical discharges by gender, rank and training status, 2007/08 - 2011/12, Annualised gender-standardised rates and 95% CI

*Age standardised rates; **Rank specific rates; ***Training status specific rates

68.   **Figure 5** shows that during the five-year period 2007/08 - 2011/12, personnel aged 50 and over had the highest rate of medical discharge at 6.3 per 1,000. Personnel aged 50 and over showed a significantly higher discharge rate than personnel aged 20 - 39. Additionally Personnel aged 40 – 44 demonstrated a significantly higher discharge rate than personnel aged 25 – 39.

69.   **Figure 6** shows that during the five-year period 2007/08 - 2011/12:
- The age standardised rate of medical discharges for female personnel (8.2 per 1,000 personnel, 95%CI=7.2-9.4) was significantly higher than male personnel (3.6 per 1,000 personnel, 95%CI=3.4-3.9).
- The rank specific rate of medical discharges for Other Ranks (4.9 per 1,000 personnel, 95%CI=4.6-5.3) was significantly higher than for Officers (1.8 per 1,000 personnel, 95%CI=1.5-2.3).
- The training status specific rate of medical discharges for untrained personnel (7.0 per 1,000 personnel, 95%CI=5.8-8.4) was significantly higher than for trained personnel (4.0 per 1,000 personnel, 95%CI=3.7-4.3). The higher rate seen among untrained personnel is thought to be a reflection of a demanding physical training regime.

70.   **Table 6** presents numbers of medical discharges among UK regular RAF personnel by principal ICD 10 cause code group and financial year for the five-year period 2007/08 - 2011/12.

Table 6: UK regular RAF medical discharges by principal ICD 10 cause code group, 2007/08 - 2011/12, Numbers[1]

	All	2007/08	2008/09	2009/10	2010/11	2011/12
All Causes of medical discharge	**913**	**212**	**195** [r]	**179**	**145**	**182**
All Cause Coded medical discharges	**820**	**200**	**173** [r]	**145**	**129**	**173**
Infectious and parasitic diseases (A00 - B99)	**5**	~	~	~	0	~
Neoplasms (C00 - D48)	**20**	~	6	5	~	6
Blood disorders (D50 - D89)	**0**	0	0	0	0	0
Endocrine, nutritional and metabolic diseases (E00 - E90)	**11**	5	~	~	~	~
- Of Which diabetes (E10-E14)	*8*	~	~	~	~	~
- Of which insulin-dependent (E10)	*7*	~	~	~	~	~
- Of which non-Insulin-dependent (E11)	*~*	*0*	*0*	*0*	*~*	*0*
Mental and behavioural disorders (F00 - F99)	**164**	45	40 [r]	23	30	26
- Of which Mood disorders (F30 - F39)	*72*	*15*	*23* [r]	*11*	*14*	*9*
- Of Which depression (F32 & F33)	*68*	*14*	*21* [r]	*11*	*13*	*9*
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	*63*	*20*	*11*	*8*	*10*	*14*
- Of which post-traumatic stress disorder (PTSD) (F431)	*11*	*~*	*~*	*~*	*~*	*~*
- Of which adjustment disorder (F432)	*28*	*11*	*8*	*~*	*~*	*5*
Nervous system disorders (G00 - G99)	**56**	15	10	11	7	13
- Of which epilepsy (G40)	*~*	*~*	*~*	*0*	*0*	*~*
Eye and adnexa diseases (H00 - H59)	**12**	5	~	~	0	~
- Of which blindness, low vision and visual disturbance (H53 & H54)	*6*	*~*	*0*	*~*	*0*	*~*
Ear and mastoid process diseases (H60 - H95)	**12**	~	~	~	~	6
- Of which hearing loss (H833 & H90 - H91)	*10*	*~*	*~*	*~*	*~*	*6*
- Of which noise-induced hearing loss (H833)	*0*	*0*	*0*	*0*	*0*	*0*
- Of which tinnitus (H931)	*0*	*0*	*0*	*0*	*0*	*0*
Circulatory system disorders (I00 - I99)	**25**	7	~	5 [r]	~	9
Respiratory system disorders (J00 - J99)	**7**	~	~	~	0	~
- Of which asthma (J45 & J46)	*~*	*0*	*~*	*~*	*0*	*~*
Digestive system disorders (K00 - K93)	**14**	~	6	~	~	~
Skin and subcutaneous tissue diseases (L00 - L99)	**11**	~	~	~	~	~
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	**450**	109	90	84 [r]	73	94
- Of which Injuries and disorders of the knee [2]	*83*	*18*	*17*	*11*	*17*	*20*
- Of which knee pain (M2556)	*31*	*~*	*7*	*~*	*11*	*7*
- Of which back pain (M549)	*112*	*32*	*19*	*19*	*16*	*26*
- Of which low back pain (M544-5)	*93*	*27*	*16*	*17*	*12*	*21*
- Of which heat injury (T67)	*0*	*0*	*0*	*0*	*0*	*0*
- Of which cold injury (T68 & T69)	*~*	*0*	*~*	*~*	*0*	*~*
Genitourinary system diseases (N00 - N99)	**7**	~	~	0	~	~
Pregnancy, childbirth and puerperium (O00 - O99)	**0**	0	0	0	0	0
Congenital malformations (Q00 - Q99)	**~**	0	~	~	0	0
Clinical and laboratory findings (R00 - R99)	**19**	~	~	~	6	6
Factors influencing health status (Z00 - Z99)	**~**	0	~	0	~	0
No details held on principle condition for medical boarding	**56**	12	21	23	0	0
Witheld consent	**37**	0	~	11	16	~

[1] Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 38)
[2] 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, S83, S89
[r] Revised due to identification of duplicate discharge record (see paragraph 28).

71.   During the five-year period the most common cause of medical discharge for the RAF was musculoskeletal disorders and injuries with 55% (n=450) of all cause coded medical discharges. Back pain accounted for 25% (n=112) of all musculoskeletal disorders and injuries, of which low back pain accounted for 83% (n=93). Injuries and disorders of the knee accounted for 18% (n=83) of all musculoskeletal disorders and injuries, of which knee pain accounted for 37% (n=31).

72.   Medical discharges attributable to cold injuries accounted for less than 1% (n<5) of all musculoskeletal disorders and injuries and less than 0.5% of all cause coded medical discharges. There were no medical discharges during the reporting period attributable to heat injuries.

73.   The second most common cause of medical discharge was mental and behavioural disorders with 20% (n=164) of all cause coded medical discharges. The majority of mental and behavioural disorders were made up by mood disorders (n=72, 44%) and neurotic disorders (n=63, 38%).

-   Of the mood disorders, depression accounted for 94% (n=68) and 8% of all cause coded medical discharges.

- Of the neurotic disorders the most common were adjustment disorder (n=28, 44%) and post-traumatic stress disorder (PTSD) (n=11, 17%).
- However, these disorders made up only 5% of all cause coded medical discharges.

74.   Hearing loss accounted for 83% (n=10) of all diseases of the ear and mastoid process, none of these were for noise-induced hearing loss. Medical discharges attributable to diseases of the ear and mastoid process only accounted for only 1% (n=12) of all cause-coded medical discharges.

75.   Causes of medical discharge for the RAF have been scrutinised in order to identify whether any specific causes have been drivers for the annual trends identified over the five-year period. For many causes annual proportions of medical discharges have varied from year to year, but no specific causes have been identified as responsible for the overall decrease in numbers. For example, annual proportions of medical discharges with musculoskeletal disorders and injuries (the largest contributor to overall numbers of medical discharges) have remained stable since 2007/08 (between 52% and 58%), despite annual numbers fluctuating over the reporting period.

DISCUSSION

76.   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.

77.   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.

78.   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.

79.   The key trends that appeared for all three Services over the reporting period 2006/07 to 2010/11 were:
- Certain demographic groups had significantly higher rates of medical discharge such as females, other (non-Officer) ranks and untrained personnel.
- The most common cause of medical discharge was musculoskeletal disorders and injuries.
- 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.

80.   While there has been a particular public interest in the number of medical discharges due to cold and heat injuries, there were very few medical discharges due to cold injuries in the RAF and Naval Service and none due to heat injuries. For the Army cold injuries account for 5% of all cause coded medical discharges and less than 0.25% due to heat injuries.

81.   It is DASA's 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 DASA will release this report on an annual basis.