Medical Discharges in the UK Regular Armed Forces
2006/07 - 2010/11

INTRODUCTION

1.   This report provides statistical information on medical discharges among UK Regular Service personnel during the five financial years 2006/07 - 2010/11. 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.   This is a revised edition of the original report (published on 14th September 2011), that rectifies 32 incorrect rates and 2 incorrect counts included in the initial reports. The Official Statistics Code of Practice[a] requires that errors are to be identified and corrected as promptly as possible. All revised figures within this report are denoted with the revision marker 'r'. Further details on the position and scale of these revisions can be found in **Annex A**.

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

4.   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[b] 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.

5.   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.

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[a] http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf
[b] As laid down in JSP 346 and/or the single Services retention standards for their career group.

6.   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)[c]. 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.

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

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[c] JSP 950 Leaflet 6-7-6 'Harmonisation of Medical Boards Leading to Discharge'

KEY POINTS

Naval Service

8.   During the five year reporting period 2006/07 - 2010/11, a total of 1,363 Naval Service personnel were medically discharged, at an overall crude rate of 7.1 per 1,000 personnel. There were certain sub-groups where the rates of medical discharges were higher: personnel aged 20-40 (revised), females, Other (non-Officer) Ranks, and untrained personnel.

9.   Musculoskeletal disorders and injuries was the most common principal cause of medical discharge from the Naval Service during the reporting period (795 cases, or 60% of all cause coded Naval Service medical discharges). Mental and behavioural disorders (172 cases, or 13% of all cause coded Naval Service medical discharges) was the second most common principal cause of medical discharge.

Army

10.   During the five year reporting period 2006/07 - 2010/11, a total of 4,333 Army personnel were medically discharged, at an overall crude rate of 7.9 per 1,000 personnel. There were certain sub-groups where the rates of medical discharge were higher: personnel aged under 30, females, Other (non-Officer) Ranks and untrained personnel.

11.   Musculoskeletal disorders and injuries was the most common principal cause of medical discharge from the Army during the reporting period (2,603 cases, or 62% of all cause coded Army medical discharges). Mental and behavioural disorders (606 cases, or 14% of all cause coded Army medical discharges) was the second most common principal cause of medical discharge.

RAF

12.   During the five year reporting period 2006/07 - 2010/11, a total of 977 RAF personnel were medically discharged, at an overall crude rate of 4.4 per 1,000 personnel. There were certain sub-groups where the rates of medical discharge were higher: females, Other (non-Officer) Ranks and untrained personnel.

13.   Musculoskeletal disorders and injuries was the most common reason for medical discharges from the RAF during the reporting period (447 cases, or 51% of all cause coded RAF medical discharges). Mental and behavioural disorders (217 cases, or 25% of all cause coded RAF medical discharges), was the second most common cause for medical discharge.

DATA, DEFINITIONS AND METHODS

14.   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.

15.   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.

16.   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

17.   Data are compiled by DASA from two sources:
        a) Monthly downloads from the Armed Forces personnel system provide information on personnel discharged for medical reasons (prior to the roll out of Joint Personnel Administration (JPA) in 2006/2007 from the Pay and Administration database; post 2006/2007 from the JPA system).
        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

18.   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.

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.

Cause coding of medical conditions

21.   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.

22.   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.

23.   Following a review in 2011 of the coding processes for cold injuries, DASA have identified fewer than five medical discharge records for Naval Service personnel that were previously coded under the ICD 10 chapter 'Circulatory System Disorders' that should have been coded as 'Cold Injuries' within the ICD 10 chapter 'musculoskeletal disorders and injuries'. The relevant numbers in Table 2 have been revised accordingly and are de-noted as 'r'.

Denominator data

24.   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 held on JPA are provisional and currently subject to review.

25.   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

26.   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).

27.   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 2009/10.

28.   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 2009/10.

29.   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).

30.   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 calendar 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.

95% Confidence intervals

31.   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[d]. 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

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

FINDINGS

33.   This report presents descriptive statistical information on the causes and trends of medical discharges among the UK regular Armed Forces. There were 6,673 medical discharges in total during the five year period 2006/07 - 2010/11 for the three Services (annual mean=1,335, these constitute approximately 8% of all exits from the Armed Forces in any year). The findings for each Service are presented separately.

Naval Service

34.   **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 2006/07 - 2010/11.

Table 1: UK regular Naval Service medical discharges[1] by age group, gender, rank and training status, 2006/07 - 2010/11, Numbers[2] and Rates[3] per 1,000 strength

	All Years		2006/07		2007/08		2008/09		2009/10		2010/11	
	n	r	n	r	n	r	n	r	n	r	n	r
All	1,363	7.1	352	9.0	299	7.7	216	5.6	206	5.3	290	7.5
Under 20	38	3.1 [r]	~	4.1	12	4.7	~	2.0	~	2.5	~	2.1
20-24	312	7.0 [r]	92	10.1	63	7.1	53	6.1	48	5.4	56	6.4
25-29	333	8.3 [r]	71	9.7	85	10.9	49	6.1	51	6.1	77	8.9
30-34	221	8.3 [r]	65	11.0	46	8.6	33	6.5	29	5.7	48	9.0
35-39	269	8.2 [r]	66	9.4	59	8.5	53	7.9	33	5.3	58	9.9
40-44	120	5.6 [r]	32	7.5	25	5.8	13	3.0	24	5.6	26	5.9
45-49	56	4.8 [r]	12	5.7	~	3.6	~	3.4	12	4.9	16	6.3
50+	14	3.8 [r]	~	5.2	~	1.6	~	2.9	~	3.6	~	5.5
Male	1,164	6.7 [r]	292	8.2	263	7.5	185	5.3	181	5.2	243	7.0
Female	199	10.6 [r]	60	16.4	36	9.8	31	8.5	25	6.8	47	12.9
Officers	78	2.1	21	2.8	20	2.7	8	1.1	10	1.3	19	2.5
Other ranks	1,285	8.3	331	10.5	279	9.0	208	6.7	196	6.3	271	8.7
Trained	1,159 [r]	6.7	309	9.0	251	7.3	167	4.9	163	4.7	269	7.6 [r]
Untrained	204 [r]	10.3	43	9.4	48	11.4	49	12.4	43	11.0	21	6.6 [r]

[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 31).
[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.
[r] Revised figures from original report - see Annex A for details.

35.   During the five-year period 2006/07 - 2010/11, a total of 1,363 Naval Service personnel were medically discharged, at an overall crude rate of 7.1 per 1,000 personnel. Annual numbers and crude rates of medical discharge decreased each year between 2006/07 and 2009/10. However, there was a 41% increase in the number of Naval Service personnel medically discharged in 2010/11 (n=290) from 2009/10 (n=206).
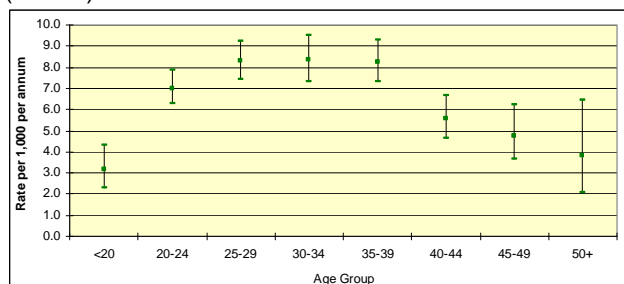

Figure 1: UK Regular Naval Service medical discharges by age group, 2006/07-2010/11, Annualised gender-standardised rates and 95% CI
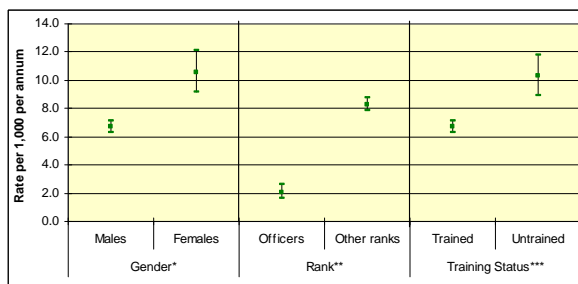

Figure 2: UK Regular Naval Service medical discharges by gender, rank and training status, 2006/07- 2010/11, Annualised gender-standardised rates and 95% CI

36.   **Figure 1** shows that during the five-year period 2006/07 - 2010/11, the gender standardised rates of medical discharges (with exception of those aged under 20 - revised) for personnel in each age group under 40 were higher than for personnel in each age group 40 years and over, though not significantly so.

37.   **Figure 2** shows that during the five-year period 2006/07 - 2010/11:
- The age standardised rate of medical discharges for female personnel (10.6[r] per 1,000 personnel, 95%CI=9.2[r]-12.2[r]) was significantly higher than for male personnel (6.7[r] per 1,000 personnel, 95%CI=6.3[r]-7.1[r]).
- The rank specific rate of medical discharges for Other Ranks (8.3 per 1,000 personnel, 95%CI=7.8-8.7) was significantly higher than for Officers (2.1 per 1,000 personnel, 95%CI=1.7-2.6).
- The training status specific rate of medical discharges for untrained personnel (10.3 per 1,000 personnel, 95%CI=9.0[r]-11.8[r]) was significantly higher than for trained personnel (6.7 per 1,000 personnel, 95%CI=6.3[r]-7.1[r]).

38.   **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 2006/07 - 2010/11.

Table 2: UK regular Naval Service medical discharges by principal ICD 10 cause code group, 2006/07- 2010/11, Numbers[1]

	All	2006/07	2007/08	2008/09	2009/10	2010/11
All Medical Discharges	**1,363**	**352**	**299**	**216**	**206**	**290**
All Cause Coded Medical Discharges	**1,331**	**332**	**292**	**212**	**205**	**290**
Infectious and parasitic diseases (A00 - B99)	**~**	~	0	~	~	~
Neoplasms (C00 - D48)	**11**	~	~	~	~	~
Blood disorders (D50 - D89)	**6**	0	0	0	~	~
Endocrine, nutritional and metabolic diseases (E00 - E90)	**32**	8	6	~	9	~
- Of Which diabetes (E10-E14)	*26*	*6*	*6*	*~*	*7*	*~*
* - Of which insulin-dependent (E10)*	*18*	*5*	*5*	*~*	*~*	*~*
* - Of which non-Insulin-dependent (E11)*	*6*	*0*	*0*	*~*	*~*	*~*
Mental and behavioural disorders (F00 - F99)	**172**	44	36	29	21	42
- Of which Mood disorders (F30 - F39)	*69*	*17*	*15*	*11*	*9*	*17*
* - Of Which depression (F32 & F33)*	*61*	*15*	*13*	*9*	*8*	*16*
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	*79*	*24*	*16*	*13*	*7*	*19*
* - Of which post-traumatic stress disorder (PTSD) (F431)*	*29*	*7*	*7*	*~*	*~*	*7*
* - Of which adjustment disorder (F432)*	*21*	*7*	*~*	*5*	*~*	*~*
Nervous system disorders (G00 - G99)	**71**	24	15	9	12	11
- Of which epilepsy (G40)	*34*	*14*	*9*	*~*	*~*	*~*
Eye and adnexa diseases (H00 - H59)	**19**	10	~	0	~	~
- Of which blindness, low vision and visual disturbance (H53 & H54)	*8*	*5*	*~*	*0*	*0*	*~*
Ear and mastoid process diseases (H60 - H95)	**23**	~	~	7	7	5
- Of which hearing loss (H833 & H90 - H91)	*20*	*0*	*~*	*6*	*7*	*~*
* - Of which noise-induced hearing loss (H833)*	*7*	*0*	*0*	*~*	*~*	*~*
- Of which tinnitus (H931)	*~*	*0*	*0*	*~*	*0*	*0*
Circulatory system disorders (I00 - I99)	**34**	~[r]	8	~	7	10
Respiratory system disorders (J00 - J99)	**27**	6	~	~	7	~
- Of which asthma (J45 & J46)	*23*	*~*	*~*	*~*	*~*	*~*
Digestive system disorders (K00 - K93)	**32**	15	~	~	~	8
Skin and subcutaneous tissue diseases (L00 - L99)	**33**	8	9	~	~	7
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	**795**	188[r]	187	138	116	166
- Of which Injuries and disorders of the knee[2]	*225*	*60*	*58*	*39*	*26*	*42*
* - Of which knee pain (M2556)*	*79*	*25*	*16*	*12*	*13*	*13*
- Of which back pain (M549)	*115*	*28*	*28*	*13*	*20*	*26*
* - Of which low back pain (M544-5)*	*94*	*24*	*23*	*12*	*15*	*20*
- Of which heat injury (T67)	*0*	*0*	*0*	*0*	*0*	*0*
- Of which cold injury (T68 & T69)	*13*	*~[r]*	*~*	*5*	*~*	*~*
Genitourinary system diseases (N00 - N99)	**6**	~	~	0	0	~
Pregnancy, childbirth and puerperium (O00 - O99)	**~**	0	~	0	0	0
Congenital malformations (Q00 - Q99)	**13**	5	~	~	~	~
Clinical and laboratory findings (R00 - R99)	**41**	11	8	6	7	9
Factors influencing health status (Z00 - Z99)	**10**	~	~	0	~	6
No details held on principle condition for medical boarding	**31**	19	7	~	~	0
Witheld consent	**~**	~	0	0	0	0

[1] Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 31)
[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] See paragraph 23 for details

39.   During the five-year period the most common cause of medical discharge for the Naval Service was musculoskeletal disorders and injuries with 60% (n=795) of all cause coded medical discharges.

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Injuries and disorders of the knee accounted for 28% (n=225) of all musculoskeletal disorders and injuries, of which knee pain accounted for 35% (n=79). Back pain accounted for 14% (n=115) of all musculoskeletal disorders and injuries, of which low back pain accounted for 82% (n=94).

40.   Medical discharges attributable to cold injuries accounted for 2% (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.

41.   The second most common cause of medical discharge was mental and behavioural disorders with 13% (n=172) of all cause coded medical discharges. The majority of mental and behavioural disorders were made up by neurotic disorders (n=79, 46%) and mood disorders (n=69, 40%).

42.   Of the neurotic disorders the most common were post-traumatic stress disorder (PTSD) (n=29, 37%) and adjustment disorder (n=21, 27%). However, these disorders each made up only 2% of all cause coded medical discharges. Of the mood disorders, depression accounted for 88% (n=61) and accounted for 5% of all cause coded medical discharges.

43.   Hearing loss accounted for 87% (n=20) of all diseases of the ear and mastoid process, of which noise-induced hearing loss accounted for 35% (n=7). Medical discharges attributable to diseases of the ear and mastoid process only accounted for 2% (n=23) of all cause-coded medical discharges.

44.   Causes of medical discharge for the Naval Service have been scrutinised in order to identify whether any specific causes have been drivers for the annual trends identified over the five-year period. However, the proportion of each major cause group has remained stable over the period. Therefore, any trends identified are simply as a result of varying numbers of Naval Service personnel medically discharged each year, regardless of the individuals' principal condition.

Army

45.   **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 2006/07 - 2010/11.

Table 3: UK regular Army medical discharges[1] by age group, gender, rank and training status, 2006/07 - 2010/11, Numbers[2] and Rates[3] per 1,000 strength

	All Years		2006/07		2007/08		2008/09		2009/10		2010/11	
	n	r	n	r	n	r	n	r	n	r	n	r
All	4,333	7.9	854	7.7	1,118	10.3	841	7.7	686	6.1	834	7.5
Under 20	1,222	21.0 [r]	271	20.7	360	29.1	246	20.9	181	15.4	164	17.4
20-24	1,536	10.7	281	9.8	378	13.5	285	10.2	268	9.1	324	11.2
25-29	750	6.1 [r]	127	5.3	175	7.2	153	6.3	120	4.8	175	7.0
30-34	349	4.1	72	4.2	87	5.3	62	3.8	48	2.8	80	4.3
35-39	270	3.3 [r]	63	3.7	75	4.4	51	3.0	38	2.3	43	2.7
40-44	150	4.2	31	5.0	27	4.2	34	4.9	22	2.8	36	4.2
45-49	27	2.0 [r]	~	2.4	9	3.4	~	1.5	~	1.4	~	1.3
50+	29	3.8	~	2.1	7	4.8	~	3.9	~	3.0	~	4.6
Male	3,880	7.3	762	7.5	997	9.9	754	7.5	617	6.0	750	7.3
Female	453	10.4 [r]	92	11.2	121	14.7	87	10.6	69	8.2	84	9.9
Officers	166	2.3	26	1.8	47	3.2	37	2.5	28	1.9	28	1.9
Other ranks	4,167	8.7	828	8.7	1,071	11.4	804	8.6	658	6.8	806	8.4
Trained	1,893	3.8	384	3.9	479	4.9	353	3.6	267	2.7	410	4.0
Untrained	2,440	45.1 [r]	470	42.4 [r]	639	57.2 [r]	488	44.8 [r]	419	34.9 [r]	424	47.4 [r]

[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 31).
[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.
[r] Revised figures from original report - see Annex A for details.

46.   During the five-year period 2006/07 - 2010/11, a total of 4,333 Army personnel were medically discharged, at an overall crude rate of 7.9 per 1,000 personnel. Annual numbers and crude rates of medical discharge fluctuated each year, with a 22% increase in the number of Army personnel medically discharged in 2010/11 (n=834) from 2009/10 (n=686).
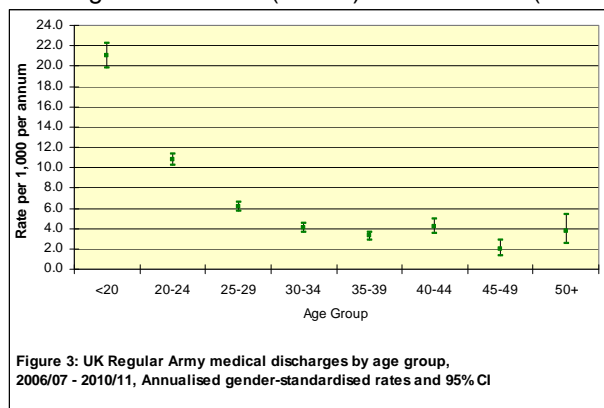
Figure 3: UK Regular Army medical discharges by age group, 2006/07 - 2010/11, Annualised gender-standardised rates and 95% CI
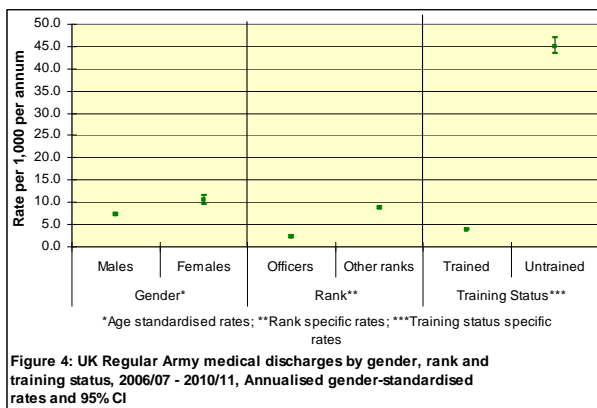
Figure 4: UK Regular Army medical discharges by gender, rank and training status, 2006/07 - 2010/11, Annualised gender-standardised rates and 95% CI

47.   **Figure 3** shows that during the five year reporting period 2006/07 - 2010/11, the gender standardised rates of medical discharges for personnel in each age group under 30 were significantly higher than for personnel in each age group 30 years and over.

48.   **Figure 4** shows that during the five-year period 2006/07 - 2010/11:
   - The age standardised rate of medical discharges for female personnel (10.4[r] per 1,000 personnel, 95% CI=9.5[r]-11.5[r]) was significantly higher than for male personnel (7.3 per 1,000 personnel, 95% CI=7.1-7.6).

- The rank specific rate of medical discharges for Other Ranks (8.7 per 1,000 personnel, 95% CI=8.5-9.0) was significantly higher than for Officers (2.3 per 1,000 personnel, 95% CI=1.9-2.6).
- The training status specific rate of medical discharges for untrained personnel (45.1[r] per 1,000 personnel, 95% CI=43.3[r]-46.9[r]) was significantly higher than for trained personnel (3.8 per 1,000 personnel, 95% CI=3.6-4.0).

49.   **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 2006/07 - 2010/11.

Table 4: UK regular Army medical discharges by principal ICD 10 cause code group, 2006/07-2010/11, Numbers[1]

	All	2006/07	2007/08	2008/09	2009/10	2010/11
All Medical Discharges	**4,333**	**854**	**1,118**	**841**	**686**	**834**
All Cause Coded Medical Discharges	**4,223**	**845**	**1,057**	**811**	**678**	**832**
Infectious and parasitic diseases (A00 - B99)	**21**	~	6	5	~	5
Neoplasms (C00 - D48)	**31**	9	7	7	~	~
Blood disorders (D50 - D89)	**7**	0	0	~	~	~
Endocrine, nutritional and metabolic diseases (E00 - E90)	**28**	5	9	~	~	7
- Of Which diabetes (E10-E14)	*17*	*~*	*~*	*~*	*~*	*~*
* - Of which insulin-dependent (E10)*	*14*	*~*	*~*	*~*	*~*	*~*
* - Of which non-Insulin-dependent (E11)*	*~*	*0*	*0*	*0*	*~*	*~*
Mental and behavioural disorders (F00 - F99)	**606**	96	139	140	103	128
- Of which Mood disorders (F30 - F39)	*175*	*29*	*51*	*37*	*25*	*33*
* - Of Which depression (F32 & F33)*	*141*	*26*	*42*	*31*	*17*	*25*
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	*310*	*45*	*63*	*71*	*60*	*71*
* - Of which post-traumatic stress disorder (PTSD) (F431)*	*127*	*15*	*21*	*32*	*26*	*33*
* - Of which adjustment disorder (F432)*	*50*	*7*	*12*	*10*	*12*	*9*
Nervous system disorders (G00 - G99)	**162**	27	61	20	31	23
- Of which epilepsy (G40)	*61*	*11*	*22*	*6*	*11*	*11*
Eye and adnexa diseases (H00 - H59)	**47**	9	14	7	7	10
- Of which blindness, low vision and visual disturbance (H53 & H54)	*22*	*~*	*7*	*~*	*~*	*5*
Ear and mastoid process diseases (H60 - H95)	**130**	32	23	21	17	37
- Of which hearing loss (H833 & H90 - H91)	*117*	*27*	*21*	*18*	*17*	*34*
* - Of which noise-induced hearing loss (H833)*	*40*	*11*	*7*	*~*	*~*	*14*
- Of which tinnitus (H931)	*~*	*~*	*0*	*0*	*0*	*0*
Circulatory system disorders (I00 - I99)	**80**	*8*	21	17	8	26
Respiratory system disorders (J00 - J99)	**84**	22	22	10	16	14
- Of which asthma (J45 & J46)	*75*	*22*	*19*	*10*	*11*	*13*
Digestive system disorders (K00 - K93)	**55**	9	14	13	8	11
Skin and subcutaneous tissue diseases (L00 - L99)	**72**	24	9	15	11	13
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	**2,603**	538	664	500	405	496
- Of which Injuries and disorders of the knee[2]	*575*	*108*	*143*	*101*	*89*	*134*
* - Of which knee pain (M2556)*	*291*	*56*	*78*	*53*	*42*	*62*
- Of which back pain (M549)	*327*	*63 [r]*	*95*	*61*	*46*	*62*
* - Of which low back pain (M544-5)*	*200*	*42*	*49*	*36*	*33*	*40*
- Of which heat injury (T67)	*10*	*0*	*0*	*~*	*~*	*5*
- Of which cold injury (T68 & T69)	*181*	*14*	*62*	*61*	*28*	*16*
Genitourinary system diseases (N00 - N99)	**27**	10	8	~	~	6
Pregnancy, childbirth and puerperium (O00 - O99)	**0**	0	0	0	0	0
Congenital malformations (Q00 - Q99)	**18**	5	0	~	6	~
Clinical and laboratory findings (R00 - R99)	**212**	47	55	37	37	36
Factors influencing health status (Z00 - Z99)	**40**	~	~	6	18	9
No details held on principle condition for medical boarding	**102**	9	60	29	~	~
Witheld consent	**8**	0	~	~	5	~

[1] Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 31)
[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] This figure has been revised since the release of the last publication covering the period 2005/06 -2009/10, due to the identification of a processing error that has now been amended

50.   During the five-year period the most common cause of medical discharge for the Army was musculoskeletal disorders and injuries with 62% (n=2,603) of all cause coded medical discharges. Injuries and disorders of the knee accounted for 22% (n=575) of all musculoskeletal disorders and injuries, of which knee pain accounted for 51% (n=291). Back pain accounted for 13% (n=327) of all musculoskeletal disorders and injuries, of which low back pain accounted for 61% (n=200).

51.   Medical discharges attributable to cold injuries accounted for 7% (n=181) of all musculoskeletal disorders and injuries and 4% of all cause coded medical discharges. Less than 0.5% (n=10) of all cause coded medical discharges were attributable to heat injuries.

52.   The second most common cause of medical discharge was mental and behavioural disorders with 14% (n=606) of all cause coded medical discharges. The majority of mental and behavioural disorders were made up by neurotic disorders (n=310, 51%) and mood disorders (n=175, 29%).

53.   Of the neurotic disorders the most common were post-traumatic stress disorder (PTSD) (n=127, 41%) and adjustment disorder (n=50, 16%). However, these disorders made up only 3% and 1% of all cause coded medical discharges respectively. Of the mood disorders, depression accounted for 81% (n=141) and accounted for 3% of all cause coded medical discharges.

54.   Hearing loss accounted for 90% (n=117) of all diseases of the ear and mastoid process, of which noise-induced hearing loss accounted for 34% (n=40). Medical discharges attributable to diseases of the ear and mastoid process only accounted for 3% (n=130) of all cause-coded medical discharges.

55.   Causes of medical discharge for the Army have been scrutinised in order to identify whether any specific causes have been drivers for the annual trends identified over the five-year period. However, the proportion of each major cause group has remained stable over the period. Therefore, any trends identified are simply as a result of varying numbers of Army personnel medically discharged each year, regardless of the individuals' principal condition.

RAF

56.   **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 2006/07 - 2010/11.

Table 5: UK regular RAF medical discharges[1] by age group, gender, rank and training status, 2006/07 - 2010/11, Numbers[2] and Rates[3] per 1,000 strength

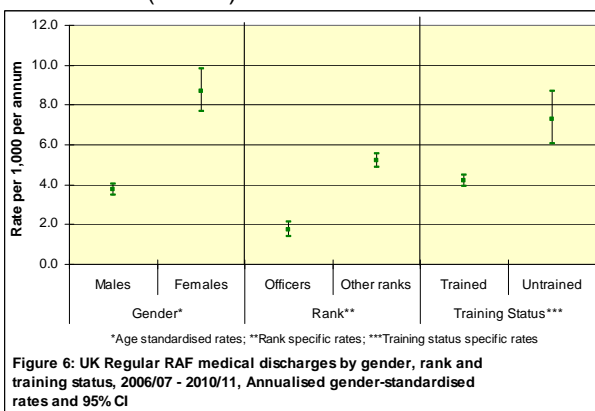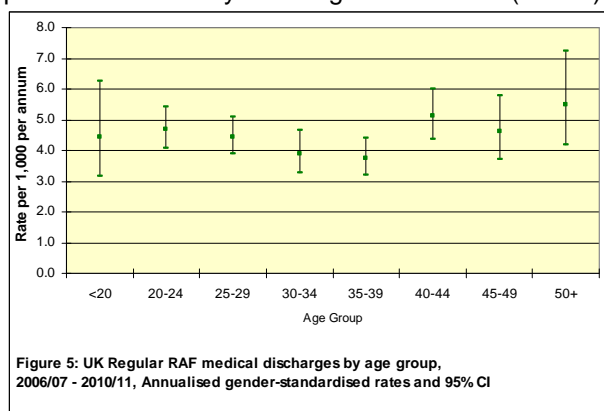|	All Years		2006/07		2007/08		2008/09		2009/10		2010/11	
	n	r	n	r	n	r	n	r	n	r	n	r
All	977	4.4	245	5.3	212	4.8	196	4.5	179	4.1	145	3.3
Under 20	33	4.4 [r]	~	3.8	5	5.0	7	4.4	13	6.0	~	2.5
20-24	187	4.7 [r]	53	6.1	44	5.6	34	4.6	38	5.1	18	2.4
25-29	204	4.4 [r]	57	6.2	34	3.7	42	4.6	33	3.6	38	4.1
30-34	128	3.9 [r]	31	4.3	32	5.0	28	4.6	24	3.7	13	1.9
35-39	149	3.7 [r]	35	3.7	37	4.2	29	3.5	23	3.1	25	3.7
40-44	148	5.1 [r]	32	5.2	31	5.3	33	5.8	22	3.8	30	5.1
45-49	77	4.6 [r]	24	7.4	16	4.9	13	3.9	15	4.4	9	2.6
50+	51	5.5	~	5.0	13	7.4	10	5.6	11	5.8	~	3.9
Male	719	3.7 [r]	185	4.5	162	4.2	135	3.6	136	3.6	101	2.7
Female	258	8.7 [r]	60	10.1	50	8.7	61	10.6	43	7.2	44	7.4
Officers	84	1.7	21	2.1	19	2.0	16	1.7	15	1.5	13	1.3
Other ranks	893	5.2	224	6.1	193	5.6	180	5.4	164	4.8	132	3.9
Trained	861	4.2	229	5.2	199	4.8	170	4.3	135	3.4	128	3.2
Untrained	116	7.3	16	7.2	13	4.9	26	7.0	44	10.2	17	5.5

[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 31).
[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.
[r] Revised figures from original report - see Annex A for details.

57.   During the five-year period 2006/07 - 2010/11, a total of 977 RAF personnel were medically discharged, at an overall crude rate of 4.4 per 1,000 personnel. Annual numbers and crude rates of medical discharge decreased year on year, with an overall decrease of 41% in the number of RAF personnel medically discharged in 2010/11 (n=145) from 2006/07 (n=245).

Figure 5: UK Regular RAF medical discharges by age group, 2006/07 - 2010/11, Annualised gender-standardised rates and 95% CI

Figure 6: UK Regular RAF medical discharges by gender, rank and training status, 2006/07 - 2010/11, Annualised gender-standardised rates and 95% CI

58.   **Figure 5** shows that during the five-year period 2006/07 - 2010/11, there was no significant difference between the gender standardised rates of medical discharges for RAF personnel for any age group. Personnel aged 50 and over had the highest rate of medical discharge at 5.5 per 1,000 personnel.

59.   **Figure 6** shows that during the five-year period 2006/07 - 2010/11:
   - The age standardised rate of medical discharges for female personnel (8.7[r] per 1,000 personnel, 95%CI=7.7[r]-9.8[r]) was significantly higher than male personnel (3.7[r] per 1,000 personnel, 95%CI=3.5-4.0[r]).

- The rank specific rate of medical discharges for Other Ranks (5.2 per 1,000 personnel, 95%CI=4.9-5.5) was significantly higher than for Officers l (1.7 per 1,000 personnel, 95%CI=1.4-2.1).
- The training status specific rate of medical discharges for untrained personnel (7.3 per 1,000 personnel, 95%CI=6.1-8.7) was significantly higher than for trained personnel (4.2 per 1,000 personnel, 95%CI=3.9-4.5).

60.   **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 2006/07 - 2010/11.

Table 6: UK regular RAF medical discharges by principal ICD 10 cause code group, 2006/07 - 2010/11, Numbers[1]

	All	2006/07	2007/08	2008/09	2009/10	2010/11
All Medical Discharges	**977**	**245**	**212**	**196**	**179**	**145**
All Cause Coded Medical Discharges	**871**	**223**	**200**	**174**	**145**	**129**
Infectious and parasitic diseases (A00 - B99)	~	0	~	~	~	0
Neoplasms (C00 - D48)	**18**	~	~	6	5	~
Blood disorders (D50 - D89)	**0**	0	0	0	0	0
Endocrine, nutritional and metabolic diseases (E00 - E90)	**11**	~	5	~	~	~
- Of Which diabetes (E10-E14)	*9*	~	~	~	~	~
* - Of which insulin-dependent (E10)*	*7*	~	~	~	~	~
* - Of which non-Insulin-dependent (E11)*	*~*	~	*0*	*0*	*0*	~
Mental and behavioural disorders (F00 - F99)	**217**	78	45	41	23	30
- Of which Mood disorders (F30 - F39)	*95*	*31*	*15*	*24*	*11*	*14*
* - Of Which depression (F32 & F33)*	*88*	*28*	*14*	*22*	*11*	*13*
- Of which Neurotic, stress related and somatoform disorders (F40 - F48)	*77*	*28*	*20*	*11*	*8*	*10*
* - Of which post-traumatic stress disorder (PTSD) (F431)*	*10*	~	~	~	~	~
* - Of which adjustment disorder (F432)*	*42*	*19*	*11*	*8*	~	~
Nervous system disorders (G00 - G99)	**60**	17	15	10	11	7
- Of which epilepsy (G40)	*5*	~	~	~	*0*	*0*
Eye and adnexa diseases (H00 - H59)	**10**	~	5	~	~	0
- Of which blindness, low vision and visual disturbance (H53 & H54)	*~*	*0*	~	*0*	~	*0*
Ear and mastoid process diseases (H60 - H95)	**11**	5	~	~	~	~
- Of which hearing loss (H833 & H90 - H91)	*7*	~	~	~	~	~
* - Of which noise-induced hearing loss (H833)*	*~*	~	*0*	*0*	*0*	*0*
- Of which tinnitus (H931)	*0*	*0*	*0*	*0*	*0*	*0*
Circulatory system disorders (I00 - I99)	**25**	*10*	7	~	~	~
Respiratory system disorders (J00 - J99)	**10**	~	~	~	~	0
- Of which asthma (J45 & J46)	*6*	~	*0*	~	~	*0*
Digestive system disorders (K00 - K93)	**16**	5	~	6	~	~
Skin and subcutaneous tissue diseases (L00 - L99)	**12**	~	~	~	~	~
Musculoskeletal disorders (M00 - M99) and Injuries (S00 - T98)	**447**	90	109	90	85	73
- Of which Injuries and disorders of the knee [2]	*82*	*19*	*18*	*17*	*11*	*17*
* - Of which knee pain (M2556)*	*30*	*6*	~	*7*	~	*11*
- Of which back pain (M549)	*109*	*23*	*32*	*19*	*19*	*16*
* - Of which low back pain (M544-5)*	*93*	*21*	*27*	*16*	*17*	*12*
- Of which heat injury (T67)	*0*	*0*	*0*	*0*	*0*	*0*
- Of which cold injury (T68 & T69)	*~*	~	*0*	~	~	*0*
Genitourinary system diseases (N00 - N99)	**8**	~	~	~	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)	**13**	0	~	~	~	6
Factors influencing health status (Z00 - Z99)	**5**	~	0	~	0	~
No details held on principle condition for medical boarding	**78**	22	12	21	23	0
Witheld consent	**28**	0	0	~	~	16

[1] Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 31)
[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

61.   During the five-year period the most common cause of medical discharge for the RAF was musculoskeletal disorders and injuries with 51% (n=447) of all cause coded medical discharges. Back pain accounted for 24% (n=109) of all musculoskeletal disorders and injuries, of which low back pain accounted for 85% (n=93). Injuries and disorders of the knee accounted for 18% (n=82) of all musculoskeletal disorders and injuries, of which knee pain accounted for 37% (n=30).

62.   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.

63.   The second most common cause of medical discharge was mental and behavioural disorders with 25% (n=217) of all cause coded medical discharges. The majority of mental and behavioural disorders were made up by mood disorders (n=95, 44%) and neurotic disorders (n=77, 35%).

64.   Of the mood disorders, depression accounted for 93% (n=88) and 10% of all cause coded medical discharges. Of the neurotic disorders the most common were adjustment disorder (n=42, 55%) and post-traumatic stress disorder (PTSD) (n=10, 13%). However, these disorders made up only 5% and 1% of all cause coded medical discharges respectively.

65.   Hearing loss accounted for 64% (n=7) of all diseases of the ear and mastoid process, with less than five cases of noise-induced hearing loss. Medical discharges attributable to diseases of the ear and mastoid process only accounted for only 1% (n=11) of all cause-coded medical discharges.

66.   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 (annual decreases in the numbers of medical discharges). 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 2006/07 (between 52% and 57%), despite annual numbers decreasing over the reporting period.

DISCUSSION

67.   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.

68.   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.

69.   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.

70.   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, 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.

71.   While there has been a particular public interest in the number of medical discharges due to cold and heat injuries, there are 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 4% of all cause coded medical discharges and less than 0.5% due to heat injuries.

72.   There has also been particular public interest in the number of medical discharges due to hearing loss, and it does account for the majority of medical discharges due to diseases of the ear and mastoid process for all three Services. However, for all three Services diseases of the ear and mastoid process accounted for a minority, 3% or less, of all cause coded medical discharges.

73.   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.

ANNEX A

Scale and Impact of Revisions

74.   The five year count of trained and untrained discharges within the Naval Services (Table 1 in report) was incorrect due to an errant calculation in excel. This affected two counts in the report:
- Trained Naval Service discharges increased from 1,016 to 1,159 (14% increase)
- Untrained Naval Service discharges increased from 199 to 204 (3% increase)

75.   As these figures were an incorrect sum of the counts from the 5 year period (the figures for individual financial years have not been revised), this error did not affect any trends presented within the report.

76.   In addition 32 rates published in the report were found to be wrong. Following extensive review of the processes used to calculate the rates, there are three issues that resulted in the errors:
- The use of incorrect numbers of medical discharges (numerator)
- The use of incorrect strengths data (denominator)
- Errors within the excel formula used to calculate the rates

77.   These errors affected two of the trends presented within the report for the Naval Service. Trends for the Army and RAF were not affected by these errors.
- The Naval Service crude rate for personnel under 20 for the whole time period decreased from 9.8 per 1,000 strength to 3.1 per 1,000 strength:
    i. Previously the report stated 'during the five-year period 2006/07 - 2010/11, the gender standardised rates of medical discharges for personnel in each age group under 40 were higher than for personnel in each age group 40 years and over'.
    ii. The report now reads 'during the five-year period 2006/07 - 2010/11, the gender standardised rates of medical discharges (with exception of those aged under 20) for personnel in each age group under 40 were higher than for personnel in each age group 40 years and over.
- The Naval Service 2010/11 training specific rates increased; for trained personnel from 3.6 per 1,000 strength to 7.6 per 1,000 strength and for untrained personnel 5.0 per 1,000 strength to 6.6 per 1,000 strength. This reversed the finding for this year only; previously untrained personnel had a higher rate than trained personnel, now trained personnel had a higher rate than untrained personnel.

78.   **Table A** presents a breakdown of the position, scale and number of revisions to counts within the report. **Table B** presents a breakdown of the position, scale and number of revisions to rates within the report. Where the rates within the revised report differ from the rates in the original report by greater than 5% a explanation has been provided for the most likely underlying reasons in paragraph 79.

Table A – Revisions to Medical Discharges in the UK Regular Armed Forces 2006/07 – 2010/11' report, counts and percentage change

Table Number	Category	Year Column[1]	Rate or Count	Original Value	New Value	Percentage Difference[2]
1	Trained	All Years	Count	1,016	1,159	14.1
1	Untrained	All Years	Count	199	204	2.5

[1] "All Years" refers to the column named "All Year". It does not refer to every column in the table.
[2] Calculated as difference of new value from original value by proportion of the original value

Table B – Revisions to Medical Discharges in the UK Regular Armed Forces 2006/07 – 2010/11' report, rates and percentage change

Table Number	Category	Year Column[1]	Rate or Count	Original Value	New Value	Percentage Difference[2]
1	Under 20	All Years	Rate	9.8	3.1	-68.4
1	20-24	All Years	Rate	8.2	7	-14.6
1	25-29	All Years	Rate	8.7	8.3	-4.6
1	30-34	All Years	Rate	8.6	8.3	-3.5
1	35-39	All Years	Rate	8.5	8.2	-3.5
1	40-44	All Years	Rate	6	5.6	-6.7
1	45-49	All Years	Rate	4.7	4.8	2.1
1	50+	All Years	Rate	4.1	3.8	-7.3
1	Male	All Years	Rate	7.5	6.7	-10.7
1	Female	All Years	Rate	11	10.6	-3.6
1	Trained	2010/11	Rate	3.6	7.6	111.1
1	Untrained	2010/11	Rate	5	6.6	32.0
3	Under 20	All Years	Rate	21.2	21	-0.9
3	25-29	All Years	Rate	6	6.1	1.7
3	35-39	All Years	Rate	3.5	3.3	-5.7
3	45-49	All Years	Rate	2.1	2	-4.8
3	Female	All Years	Rate	10.6	10.4	-1.9
3	Untrained	All Years	Rate	39.8	45.1	13.3
3	Untrained	2006/07	Rate	37	42.4	14.6
3	Untrained	2007/08	Rate	50.8	57.2	12.6
3	Untrained	2008/09	Rate	39.8	44.8	12.6
3	Untrained	2009/10	Rate	31.5	34.9	10.8
3	Untrained	2010/11	Rate	40.6	47.4	16.7
5	Under 20	All Years	Rate	4.2	4.4	4.8
5	20-24	All Years	Rate	4.9	4.7	-4.1
5	25-29	All Years	Rate	4.5	4.4	-2.2
5	30-34	All Years	Rate	3.6	3.9	8.3
5	35-39	All Years	Rate	3.8	3.7	-2.6
5	40-44	All Years	Rate	5.2	5.1	-1.9
5	45-49	All Years	Rate	4.5	4.6	2.2
5	Male	All Years	Rate	3.8	3.7	-2.6
5	Female	All Years	Rate	8.5	8.7	2.4

[1] "All Years" refers to the column named "All Year". It does not refer to every column in the table.
[2] Calculated as difference of new value from original value by proportion of the original value

79.   15 medical discharge rates within the revised report differ from the rates in the original report by greater than 5%;

- The 68.4% decrease in the revised rate for Naval Service Personnel Under 20 in the "All Years" column is a result of untrained Naval Service personnel erroneously included within the original rate calculations. The small size of the population, combined with the increased propensity of young personnel to be untrained is likely to have caused this dramatic change
- The 14.6% decrease in the revised rate for Naval Service Personnel aged 20-24 is also likely a result of the bottom heavy age profile of the incorrectly included untrained personnel.
- The 6.7% decrease in the revised rate for Naval Service Personnel aged 40-44 is most likely the result of the incorrectly included reserve personnel.
- The 7.3% decrease in the revised rate for Naval Service Personnel aged 50+ is most likely the result of the incorrectly included reserve personnel.
- The 10.7% decrease in the revised rate for male Naval Service Personnel is likely to be the result of the demographic properties of the incorrectly included untrained and reservist personnel included in the initial report.
- The 111.1% increase in the revised rate for Untrained Naval Service personnel in 2010/11 is a result of an incorrect excel formula.
- The 32% increase in the revised rate for Untrained Naval Service personnel in 2010/11 is a result of an incorrect excel formula.
- The 5.7% decrease in the revised rate for Army Personnel aged 35-39 is a result of the incorrectly included untrained and reservist personnel included in the initial report.
- The 13.3% increase in the revised rate for Untrained Army personnel in the "All Years" column is a result of incorrect (inflated) denominator utilised in the calculation of the rates.
- The 14.6% increase in the revised rate for Untrained Army personnel in 2006/07 is a result of incorrect (inflated) denominator utilised in the calculation of the rates.

- The 12.6% increase in the revised rate for Untrained Army personnel in 2007/08 is a result of incorrect (inflated) denominator utilised in the calculation of the rates.
- The 12.6% increase in the revised rate for Untrained Army personnel in 2008/09 is a result of incorrect (inflated) denominator utilised in the calculation of the rates.
- The 10.8% increase in the revised rate for Untrained Army personnel in 2009/10 is a result of incorrect (inflated) denominator utilised in the calculation of the rates.
- The 16.7% increase in the revised rate for Untrained Army personnel in the 2010/11 is a result of incorrect (inflated) denominator utilised in the calculation of the rates.
- The 8.3% increase in the revised rate for RAF personnel in the "All Years" column is a result of the incorrectly included untrained and reservist personnel included in the initial report.