UK Armed Forces Mental Health:

Presenting complaints at MOD Departments of Community Mental Health October - December 2012

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INTRODUCTION

1. This report provides statistical information on mental health in the UK Armed Forces for the period October - December 2012. Data used in this report summarises all **new episodes of care** of UK Armed Forces personnel at the MOD Departments of Community Mental Health (DCMHs) for outpatient care, i.e. new patients, or patients who have been seen at a DCMH but were discharged from care and have been referred again, and **all** admissions to the MOD in-patient care contractors.

2. This data updates previous reports and includes previously unpublished data for 1 October to 31 December 2012.

3. Following an external consultation exercise in July 2012, all releases of this report now present the latest quarter and the previous four quarters of mental health data only. Quarterly time series since reporting began in January 2007 have also been included in this report. Annual data are presented in the annual report along with the rate ratios for those with a mental disorder comparing those previously deployed with those not previously deployed. The annual report will be published in July of each year.

4. DCMHs are specialised mental health services based on community mental health teams closely located with primary care services at sites in the UK and abroad. **Information on patients only seen in the primary care system is not currently available.** Throughout this report the term DCMH includes four mental health posts located in medical centres, attached to a DCMH, staffed by psychiatrists and mental health nurses and operating in the same way as a DCMH; seeing and treating personnel referred with suspected mental health disorders. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by the South Staffordshire and Shropshire NHS Foundation trust; UK Service personnel from British Forces Germany are treated at Guys and St Thomas' Hospital in the UK. Further details can be found in the section on **'Data, definitions and methods'**.

5. A rigid pseudo-anonymisation process, and other measures preserving patient confidentiality, has enabled full verification and validation of the DCMH returns. It has also ensured linkage with deployment databases was possible, so that potential effects of deployment could be measured. The first report[a] in this series provides important background information on data governance. A summary of this, along with detail of some minor methodology changes, can be found later in the section on **'Data, definitions and methods'**.

KEY POINTS

Initial Assessments at MOD DCMHs

6. During the three-month period October - December 2012, 1,268 new episodes of care for mental disorder were identified within UK Armed Forces personnel, a rate of 6.8 per 1,000 strength. This represents a significant increase from the rate of mental disorder observed in the previous three-month period July - September 2012 (5.5 per 1,000 strength).

7. Compared to the previous quarter the rate of mental disorder also significantly increased in the following populations:

- Army personnel (7.3 per 1,000 compared with 5.9 per 1,000 strength)
- Males (5.9 per 1,000 compared with 4.9 per 1,000 strength)
- Females (15.6 per 1,000 compared with 11.2 per 1,000 strength)
- Other Ranks (7.5 per 1,000 compared with 6.0 per 1,000 strength)
- Personnel previously deployed to Op TELIC and/or Op HERRICK (7.2 per 1,000 compared with 5.9 per 1,000 strength)
- Personnel who had not been identified as having previously deployed prior to their episode of care (6.3 per 1,000 compared with 4.8 per 1,000 strength).
- Personnel assessed with a mood disorder (1.8 per 1,000 compared with 1.4 per 1,000 strength)
- Personnel assessed with a neurotic disorder (4.3 per 1,000 compared with 3.6 per 1,000 strength)

[a] UK Armed Forces psychiatric morbidity: Assessment of presenting complaints at MOD DCMHs and association with deployment on operations in the Iraq or Afghanistan theatres of operation January – March 2007.

8. Discussion on the significant increase in mental disorders observed during the latest quarter for UK Armed Forces personnel and within populations can be found in the **Results** section of this report on pages 7-10.

9. Despite the significant increases observed compared to the previous quarter, the differences between populations this quarter remain broadly consistent with the findings in previous reports. For the 1,268 personnel assessed for a new episode of care with a mental disorder during the period October - December 2012 there were some statistically significant findings:

- Rates for Army and RAF personnel were significantly higher than Royal Navy and Royal Marines personnel.
- Rates for females were significantly higher than for males.
- Rates for Other ranks were significantly higher than for Officers.

These findings are consistent with the findings in previous reports.

10. Comparing those deployed on Op TELIC and/or Op HERRICK and those not deployed to either operation:

- There was no significant difference in the rate of mental disorder between those previously deployed to Op TELIC and/or Op HERRICK and those who had not been identified as having previously deployed prior to their episode of care.

11. Neurotic disorders were the most prevalent disorder in the period October - December 2012, this was consistent with the findings in the previous four quarters. Adjustment disorders accounted for the majority of all Neurotic disorders. Rates of PTSD remained low at 0.4 per 1,000 strength (n = 79), there was no increase in the rate of PTSD compared to previous quarters.

Admissions to the MOD In-patient Contractor

12. During the three-month period October - December 2012, there were 74 admissions to the MOD in-patient care contractor representing a rate of 0.4 per 1,000 strength; 47 of these patients had been seen at a DCMH at some point prior to their admission. The rate of admission to the MOD in-patient care contractor showed no change compared to previous quarters.

POINTS TO NOTE

13. Interpretation of the findings in this report continues to require caution. The data contained within this report covers the activity of the formal professional mental health services in the Armed Forces and as such, does not represent the totality of mental health problems in the UK Armed Forces. These figures report only attendances for new episodes of care, not all those who were receiving treatment in the time period.

14. Mental health problems are present in both civilian and military populations and result from multi-factorial issues. The Headquarters Surgeon General (HQ SG) and Joint Medical Command (JMC) are striving to minimise the stigma associated with mental illness and foster the appropriate understanding, recognition and presentation for management of these issues in UK Armed Forces personnel. Stigma concerning mental health issues is, however, deeply embedded in both military and civilian populations and it may take time produce attitudinal cultural change.

15. Some mental health problems will be resolved through peer support and individual resources; patients presenting to the UK Armed Forces' mental health services will have undergone a process that begins with the individual's identification of a problem and initial presentation to primary care or other agencies such as the padres or Service social workers. A proportion of mental health issues will have been resolved at these levels without the need for further referral. The diagnostic breakdown in this report is based upon initial assessments at DCMHs, which may be subject to later amendment. For epidemiological information on mental health problems in the UK Armed Forces, reference should be made to the independent academic research conducted by the King's Centre for Military Health Research (KCMHR). This research, conducted on a large and representative sample of the UK Armed Forces population, provides a reliable overview of mental health in the UK Armed Forces[b].

DATA, DEFINITIONS AND METHODS

16. To ensure these statistics pick up all new episodes of care, Defence Statistics (formerly DASA) have made some changes to data collection and validation from July 2009 onwards. Prior to July 2009, we identified individuals who had previously attended a DCMH and removed them from the analysis. Following discussions with mental health professionals, Defence Statistics reviewed the methodology and expanded the data collection in order to more effectively capture the overall burden of mental health in the UK Armed Forces, including the effect of deployment on those who might have previously been seen for an unrelated mental health condition. We now include all new episodes of care, including both first referrals and patients who were seen at a DCMH previously, were discharged from care and have been referred again for a new episode of care.

17. From July 2009 onwards, Defence Statistics have also included data from four mental health posts located in medical centres, attached to a DCMH, staffed by mental health nurses and operating in the same way as a DCMH; seeing and treating personnel referred for specialist care with suspected mental health disorders. Throughout this report the term DCMH includes these four mental health posts.

18. DCMH staff record the initial mental health assessment during a patient's first appointment, based on presenting complaints. The information is provisional and final diagnoses may differ as some patients do not present the full range of symptoms, signs or clinical history during their first appointment. The mental health assessment of condition data were categorised into three standard groupings of common mental disorders used by the World Health Organisation's International Statistical Classification of Diseases and Health-Related Disorders 10th edition (ICD-10).

19. A number of patients present to DCMHs with symptoms that require the treatment skills of DCMH staff, whilst not necessarily having a specific and identifiable mental disorder. In the **Results** section, these cases are referred to as "assessed without a mental disorder".

20. If Service personnel withhold consent, DCMH staff collect basic demographic information only (Service, gender, rank, age and deployment) thus enabling Defence Statistics to include these cases within the tables. For the latest quarter, three cases were included in the analysis where personnel withheld consent but basic demographic information was supplied by the DCMH. As a result these could not be verified or linked to personnel data.

21. All UK based and aero-medically evacuated Service personnel based overseas (excluding Germany based Service personnel) requiring in-patient admission, are treated by the South Staffordshire and

[b] Their findings are published in the peer-reviewed medical literature and are freely available in the public domain at URL:http://www.kcl.ac.uk/kcmhr/information/publications/publications.html.

Shropshire NHS Foundation trust. From April 2011 all quarterly reports now include UK Service personnel from British Forces Germany (BFG) who are treated at Guys and St Thomas' Hospital in the UK. Historically BFG in-patients were only reported annually, however due to changes in the reporting process we are now able to include these patients in the quarterly statistics.

22. In order to calculate the rates in this report, an estimate of person time at risk is required for the denominator value. The estimate was calculated using a four-month average of strengths figures (e.g. the strength at the first of every month between October 2012 and January 2013 divided by four for Q3 2012/2013). This estimate is in line with the method used for the annual reports. Strengths figures include regulars (including Gurkhas and Military Provost Guard Staff), mobilised reservists, Full Time Reserve Service personnel and Non-regular Permanent Staff as all of these individuals are eligible for assessment at a DCMH.

23. The 95% confidence interval for a rate provides the range of values within which we expect to find the real value of the indicator under study, with a probability of 95%. If a 95% confidence interval around a rate excludes the comparison value, then a statistical test for the difference between the two values would be significant at the 0.05 level. If two confidence intervals do not overlap, a comparable statistical test would always indicate a statistically significant difference. The rates and confidence intervals presented have been rounded to 1 decimal place and therefore when small numbers are presented the rate may lie towards one end of the confidence interval instead of more centrally between the lower and upper confidence interval.

24. Defence Statistics maintains a database of individual deployment records from November 2001. Data prior to April 2007 was derived from the single services Operation Location tracking (OPLOC) systems[c] and data since April 2007 is obtained from the Joint Personnel Administration (JPA) system. The data covers deployments on Operation TELIC (Iraq) (2003-2011) and Operation HERRICK (Afghanistan) (2001-present).

25. The deployment data presented in this report represent deployments to the theatre of operation and not deployment to a specific country i.e. deployment to Op TELIC includes deployment to Iraq and other countries in the Gulf region such as Kuwait and Oman. Therefore, this data cannot be compared to data on personnel deployed to a specific country such as Iraq.

26. Deployment markers were assigned using the criteria that an individual was recorded as being deployed to the Iraq and/or Afghanistan theatres of operation if they had deployed to these theatres prior to their appointment date. Person level deployment data for Afghanistan was not available between 1 January 2003 and 14 October 2005. Therefore, it is possible that some UK Armed Forces personnel who were deployed to Afghanistan during this period and subsequently attended a DCMH have not been identified as having deployed to Afghanistan in this report **but** have been captured in the overall figures for episodes of care at a DCMH. **Please note: this report compares those who had been deployed before their episode of care with those who have not been identified as having deployed before their episode of care.**

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

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

29. In line with Defence Statistics' rounding policy (May 2009) all numbers fewer than five have been suppressed. Where there is only one cell in a row or column that is fewer than five, the next smallest number has also been suppressed so that numbers cannot be derived from totals. Where there are equal values, both numbers have been suppressed.

[c] Around 4% of data obtained prior to April 2007 could not be fully validated for a number of reasons including data entry errors, personnel not recording on the system in the theatre of operation, records of contractors or personnel from other Government Departments. However research carried out by the King's Centre for Military Health Research on a large Tri-Service sample of personnel deployed during the first phase of Op TELIC in 2003, who were identified from Defence Statistics' deployment database, reported a cohort error rate of less than 0.5 per cent.

REFERENCES

i. Singleton N, Lewis G (2003). Better or Worse: A longitudinal study of the mental health of adults living in private households in Great Britain, *Her Majesty's Stationery Office (HMSO): London*.

ii. Meltzer H, Singleton N, Lee A et al (2002). The social and economic circumstances of adults with mental disorders, *Her Majesty's Stationery Office (HMSO): London*.

RESULTS

New Episodes of Care at MOD DCMHs, October - December 2012 summary

30. During the three-month period October - December 2012, a total of 1,577 UK Service personnel were recorded as having been assessed for a new episode of care at the MOD's DCMHs, representing a rate for the period of 8.5 per 1,000 strength[d].

31. **Table 1** provides details of the key socio-demographic characteristics of the 1,577 new episodes of care at the MOD's DCMHs during October - December 2012.

Table 1: New episodes of care at the MOD's DCMHs by demographic characteristics, 1 October 2012 – 31 December 2012, numbers and rates per 1,000 strength.

Characteristic	All patients seen	Patients assessed with a mental disorder			Patients assessed without a mental disorder[1]
		Number	Rate	95% CI	
All	**1,577**	**1,268**	**6.8**	**(6.5 - 7.2)**	**309**
Service					
Royal Navy	182	143	5.3	(4.4 - 6.1)	39
Royal Marines	28	26	3.3	(2.2 - 4.9)	2
Army	1,009	812	7.3	(6.8 - 7.8)	197
RAF	358	287	7.4	(6.6 - 8.3)	71
Gender					
Males	1,257	998	5.9	(5.6 - 6.3)	259
Females	320	270	15.6	(13.7 - 17.4)	50
Rank					
Officers	133	108	3.5	(2.8 - 4.1)	25
Other ranks	1,444	1,160	7.5	(7.1 - 8.0)	284
Deployment - Theatres of operation[2]					
Op TELIC and/or Op HERRICK[3]	1,025	854	7.2	(6.7 - 7.6)	171
of which, Op TELIC	571	481	6.8	(6.2 - 7.4)	90
Op HERRICK[3]	804	669	7.1	(6.6 - 7.7)	135
Neither Op TELIC nor Op HERRICK[3]	552	414	6.3	(5.7 - 6.9)	138

1. Patients assessed without a mental disorder (see paragraph 19).
2. Deployment to the wider theatre of operation (see paragraph 25).
3. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see paragraph 26).

32. Of the 1,577 new episodes of care, 1,268 (80%) were assessed with a mental disorder, representing an overall rate for new episodes of care for mental disorder of 6.8 per 1,000 strength. There were 309 patients who were recorded as having no mental disorder at their initial assessment. **Table 1** shows some statistically significant findings :

33. Army and RAF personnel had significantly higher rates of mental disorder (7.3 per 1,000 strength and 7.4 per 1,000 strength respectively) compared to Royal Navy personnel and Royal Marine personnel (5.3 per 1,000 strength and 3.3 per 1,000 strength respectively).

34. The rate of mental disorder was higher in females than males (15.6 per 1,000 strength and 5.9 per 1,000 strength respectively).

35. Rates of those assessed with a mental health disorder in Other Ranks were higher than Officers. Ranks had a significantly higher rate of mental disorder at 7.5 per 1,000 strength compared to Officers at 3.5 per 1,000 strength.

36. There was no significant difference in the rate of mental disorder among those previously deployed to Op TELIC and/or Op HERRICK compared to those who had not been identified as having previously deployed prior to their episode of care (7.2 per 1,000 strength and 6.3 per 1,000 strength respectively).

[d] Using a four-month average of regular and mobilised reserves strength from 1 October 2012 to 1 January 2013 (see paragraph 22).

New Episodes of Care at MOD DCMHs for the five quarter period October - December 2011 to October - December 2012

Trends overall and by demographic variable

37. **Table 2** presents numbers and rates of Service personnel who attended a DCMH for a new episode of care and were assessed with a mental disorder in the last five quarters (October 2011 to December 2012).

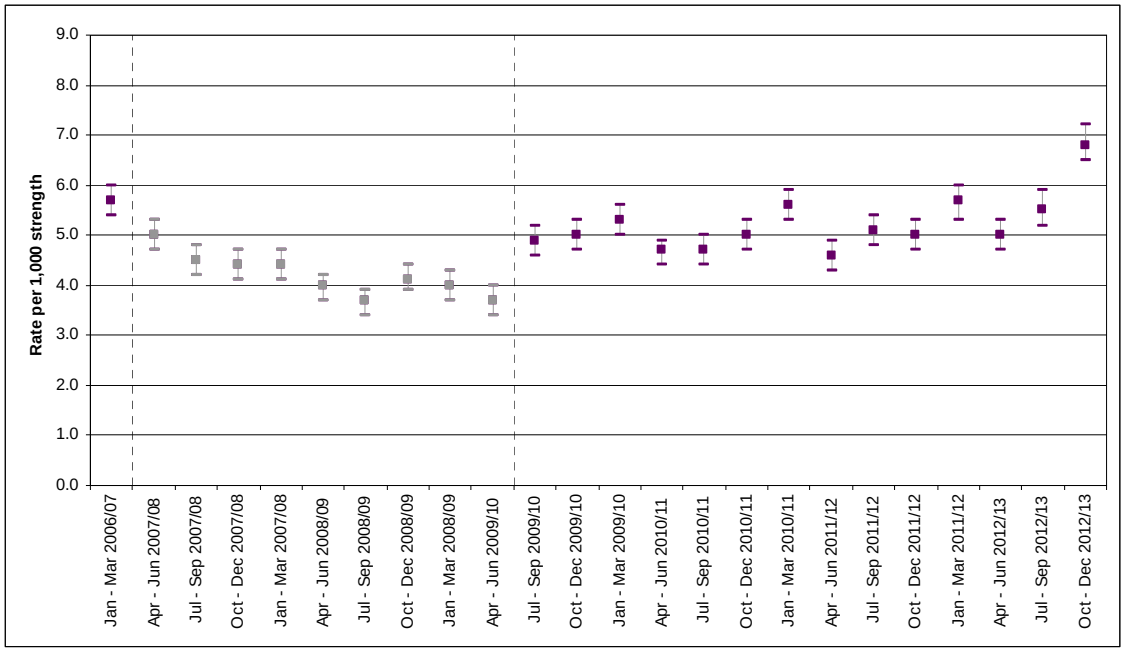
Table 2: Episodes of care at the MOD's DCMH, October 2011 – December 2012 by quarter, numbers and rates per 1,000 strength.

		Patients assessed with a mental disorder			Patients assessed without a mental disorder
	All patients seen	Number	Rate	95% CI	
October - December 2011	1,350	968	5.0	(4.7 - 5.3)	382
January - March 2012	1,490	1,093	5.7	(5.3 - 6.0)	397
April - June 2012	1,269	954	5.0	(4.7 - 5.3)	315
July - September 2012	1,366	1,043	5.5	(5.2 - 5.9)	323
October - December 2012	1,577	1,268	6.8	(6.5 - 7.2)	309

38. **Table 2** shows there was no significant change quarter on quarter in the overall rate of Service personnel assessed with a mental disorder between October 2011 and September 2012. However, in the latest quarter the rate increased significantly from 5.5 per 1,000 strength to 6.8 per 1,000 strength.

39. **Figure 1** presents the rate of Armed Forces personnel assessed with a mental disorder each quarter between January 2007 and December 2012.

Figure 1: UK Armed Forces personnel assessed with a mental disorder, January 2007 to December 2012[1,2], rates and 95% confidence intervals



1. January 2007 - June 2009 new attendances, July 2009 onwards new episodes of care (see paragraphs 16 -17).
2. January 2007 represents a genuine baseline as at this point all cases were 'new episodes of care' as this was the start of data capture by Defence Statistics.

40. **Figure 1** shows since July 2009[e] the rate has been stable at around 5.0 per 1,000, with a rise in January – March each year, however, in the latest quarter there was a significant increase in the rate of new episodes of care compared to any of the previous quarters presented. Figure 1 has been repeated for each of the Services and is available in **Annex A**.

41. There have been a number of 'drivers' which may explain the increase in episodes of care reported in October-December 2012/13 (15.4% increase in the number of new episodes compared to previous quarter). For example, the Structured Mental Health Assessment (SMHA)[f] was introduced in May 2012 for use by mental health practitioners as part of routine and discharge medicals.

42. Defence Statistics investigated the usage of the SMHA to see if its introduction had resulted in the increase in episodes of care at DCMH. Of the 1,577 episodes of care reported in October-December 2012, 3.5% (n=55) had a SMHA completed prior to their first appointment. Thus the introduction of the SMHA did not account for the reported increase.

43. Another possible explanation was that particular populations at risk in the UK Armed Forces had increased. The findings indicate that there have been increases in **ALL** demographic groups presented; however, significant increases have been seen among Army personnel, males, females, Other Ranks, personnel previously deployed and personnel not previously deployed (**Table 3, 4,** & **5**).

44. An alternative explanation for the increased presentation to DCMHs in the latest quarter were the campaigns and initiatives the MOD has undertaken to reduce the stigma associated with mental health problems in the Armed Forces. For example the 'Don't Bottle It Up' campaign[g] which ran in April - October 2011 and in June - September 2012; in the quarters following these campaigns there was an increase in the rate of mental disorder (**Figure 1**), however increases were also observed in other quarters not immediately preceded by this campaign. It is possible that anti-stigma campaigns may be a contributory factor to the increase observed in the latest quarter.

45. Other examples of stigma-reducing activities include Trauma Risk Management (TRiM); briefings as part of post-deployment decompression; the 'Big White Wall' online well-being network as well as various activities by individual DCMH to raise mental health awareness. These campaigns and initiatives may have resulted in more personnel coming forward to seek help for mental health issues.

46. In the previous report in this series Defence Statistics stated that the rise in the rate for the January - March 2012 and July - September 2012 periods, shown in **Figure 1** as a possible seasonal effect, may be associated with patterns of operational deployment. Defence Statistics are continuing to investigate this and will report the findings when the analysis is complete.

47. Thus Defence Statistics have not been able to identify one single explanation for the increase reported. However it may be a combination of factors resulting in greater help seeking behaviour amongst the UK Armed Forces.

48. **Tables 3, 4** and **5** present the demographic details for Service personnel who attended a DCMH for a new episode of care and were assessed with a mental disorder in the last five quarters (October 2011 to December 2012).

Table 3: Episodes of care at the MOD's DCMH by Service, October 2011 – December 2012 by quarter, numbers and rates per 1,000 strength.

	Service											
	Royal Navy			Royal Marines			Army			RAF		
	Patients assessed with a mental disorder											
Date	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
October - December 2011	109	3.8	(3.1 - 4.5)	13	1.6	(0.9 - 2.8)	610	5.3	(4.9 - 5.7)	236	5.7	(4.9 - 6.4)
January - March 2012	85	3.0	(2.3 - 3.6)	28	3.5	(2.3 - 5.1)	733	6.4	(5.9 - 6.9)	247	6.0	(5.3 - 6.8)
April - June 2012	90	3.2	(2.6 - 3.9)	24	3.0	(1.9 - 4.5)	611	5.3	(4.9 - 5.8)	229	5.7	(5.0 - 6.4)
July - September 2012	110	4.0	(3.2 - 4.7)	23	2.9	(1.8 - 4.4)	666	5.9	(5.4 - 6.3)	244	6.2	(5.4 - 6.9)
October - December 2012	143	5.3	(4.4 - 6.1)	26	3.3	(2.2 - 4.9)	812	7.3	(6.8 - 7.8)	287	7.4	(6.6 - 8.3)

[e] Methodology change from July 2009 onwards (see paragraphs 16-17)
[f] Introduced following recommendations in Dr Murrison's report 'Fighting Fit'
[g] Information available at URL:http://www.army.mod.uk/welfare-support/23386.aspx#

49. **Table 3** shows in the latest quarter the rate increased in each of the Services and this increase was statistically significant for Army personnel (7.3 per 1,000 compared with 5.9 per 1,000 strength).

50. As in previous quarters there were some significant differences in the rate of mental disorder between the Services (**Table 3**). In each of the last five quarters, the Army and RAF had significantly higher rates compared to the Royal Navy and Royal Marines.

51. Each Service has its own recruitment policies and standards; a possible explanation for the higher rates in the RAF is that they recruit older personnel compared to the other Services and these personnel often have higher educational attainment on joining the Armed Forces. In the civilian population it has been shown that higher educational attainment can lead to greater help seeking behaviour (Meltzer *et al* 2002). Thus it may be that the RAF do not have absolute higher levels of mental health problems, rather they are more likely to seek help to resolve them.

52. The Royal Marines had the lowest rate of mental disorders compared to the other Services, this may be due to the rigorous training they undergo which ensures only the 'elite' go forward as Royal Marines (thus the selection process removes those that may be more susceptible to mental health problems) and/or it may be due the tight unit cohesion that exists amongst the elite forces, thus the support received from the Unit further supports the 'healthy worker' effect (Pers comm. Def Prof Mental Health).

Table 4: Episodes of care the MOD's DCMH by gender and rank, October 2011 – December 2012 by quarter, numbers and rates per 1,000 strength.

	Gender						Rank					
	Males			Females			Officers			Other Ranks		
	Patients assessed with a mental disorder											
	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
October - December 2011/12	772	4.4	(4.1 - 4.7)	196	10.8	(9.3 - 12.3)	103	3.1	(2.5 - 3.7)	865	5.4	(5.0 - 5.7)
January - March 2011/12	874	5.0	(4.7 - 5.3)	219	12.2	(10.6 - 13.8)	106	3.3	(2.6 - 3.9)	987	6.2	(5.8 - 6.6)
April - June 2012/13	747	4.3	(4.0 - 4.6)	207	11.6	(10.0 - 13.2)	92	2.9	(2.3 - 3.4)	862	5.5	(5.1 - 5.8)
July - September 2012/13	844	4.9	(4.6 - 5.3)	199	11.2	(9.7 - 12.8)	98	3.1	(2.5 - 3.7)	945	6.0	(5.6 - 6.4)
October - December 2012/13	998	5.9	(5.6 - 6.3)	270	15.6	(13.7 - 17.4)	108	3.5	(2.8 - 4.1)	1,160	7.5	(7.1 - 8.0)

53. **Table 4** shows the rate of mental disorder increased significantly for both males and females (5.9 per 1,000 compared with 4.9 per 1,000 strength and 15.6 per 1,000 compared with 11.2 per 1,000 respectively) in the latest quarter. Although there was a significant increase for both, females had the greatest increase at 39.3% compared with a 20.4% increase in males.

54. The rate of mental disorder was higher in females than males throughout the five quarters (**Table 4**). This finding was replicated in the civilian population where females were more likely to report mental health problems than males. A study following up the mental health of adults suggested that this is because females are likely to have more interactions with health professionals (Singleton N, Lewis G 2003). Defence Statistics have not investigated whether females in the UK Armed Forces have more interactions with health professionals than their male colleagues.

55. **Table 4** shows in the latest quarter the rate of mental disorder increased significantly for Other Ranks (7.5 per 1,000 compared with 6.0 per 1,000 strength). For Officers the rate increased but not significantly.

56. Rates of those assessed with a mental health disorder in Other Ranks were significantly higher than Officers in each of the quarters presented. The differences between ranks and Officers may be due to educational and/or socio-economic background, where both higher educational attainment and higher socio-economic background are associated with lower levels of mental health disorder (Meltzer *et al* 2002). The majority of Officers (with the exception of those promoted from the Ranks) are recruited as graduates of the higher education system, whilst the majority of Other Ranks are recruited straight from school and often from the inner cities (particularly for the Army).

Table 5: Episodes of care at the MOD's DCMHs by deployment[1,2], October 2011 – December 2012 by quarter, numbers and rates per 1,000 strength.

	Deployment - Theatres of operation[1]											
	Op TELIC and/or Op HERRICK[2]			of which Op TELIC			of which Op HERRICK[2]			Neither		
	Patients assessed with a mental disorder											
Date	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
October - December 2011/12	628	5.1	(4.7 - 5.5)	*399*	*5.0*	*(4.5 - 5.5)*	*442*	*4.9*	*(4.5 - 5.4)*	340	4.8	(4.3 - 5.3)
January - March 2011/12	708	5.8	(5.4 - 6.2)	*411*	*5.3*	*(4.8 - 5.8)*	*537*	*6.0*	*(5.4 - 6.5)*	385	5.5	(4.9 - 6.0)
April - June 2012/13	623	5.1	(4.7 - 5.5)	*361*	*4.8*	*(4.3 - 5.3)*	*477*	*5.2*	*(4.7 - 5.6)*	331	4.8	(4.3 - 5.3)
July - September 2012/13	714	5.9	(5.5 - 6.4)	*424*	*5.7*	*(5.2 - 6.3)*	*551*	*5.9*	*(5.5 - 6.4)*	329	4.8	(4.3 - 5.4)
October - December 2012/13	854	7.2	(6.7 - 7.6)	*481*	*6.8*	*(6.2 - 7.4)*	*669*	*7.1*	*(6.6 - 7.7)*	414	6.3	(5.7 - 6.9)

1. Deployment to the wider theatre of operation (see paragraph 25).
2. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see paragraph 26).

57. **Table 5** shows in the latest quarter the rate of mental disorder increased significantly among personnel who had previously deployed to Op TELIC and/or Op HERRICK (7.2 per 1,000 compared with 5.9 per 1,000 strength), personnel who had previously deployed to Op HERRICK (7.1 per 1,000 compared with 5.9 per 1,000 strength) and among personnel who had not been identified as having previously deployed prior to their episode of care (6.3 per 1,000 compared with 4.8 per 1,000 strength). This finding suggests the overall increase in mental disorders observed in the latest quarter was not due to the impact of operational deployments.

58. There was no significant difference in the rates of mental disorder among those who had previously deployed to Op TELIC and/or Op HERRICK compared to those who had not been identified as having previously deployed prior to their episode of care in the latest quarter (**Table 5**). This finding is consistent with previous quarters, apart from during the July - September 2012 period where the rate of those previously deployed to Op TELIC and/or Op HERRICK was significantly higher than those not previously deployed (5.9 per 1,000 compared to 4.8 per 1,000 strength).

Trends by mental disorder

59. **Table 6** (see page 11) provides details of the types of presenting complaints, by ICD-10 grouping, for the 1,268 new episodes of care assessed with a mental disorder during October - December 2012 and for the previous four quarters.

60. In the latest quarter the rates for mood disorders and neurotic disorders significantly increased (1.8 per 1,000 compared with 1.4 per 1,000 strength and 4.3 per 1,000 compared with 3.6 per 1,000 strength respectively). However rates for PTSD, psychoactive substance use (including disorders due to alcohol) and other mental disorders have NOT increased compared to previous quarters.

61. The increase in mood disorders was the result of increases in episodes of care for Army and RAF personnel, but neither were significant compared to the previous quarter. The increase in neurotic disorders was the result of a significant increase in episodes of care for Army personnel compared to the previous quarter; there were also increases in Naval Service and RAF personnel being assessed with neurotic disorders but they were not significant compared to the previous quarter.

62. Neurotic disorders were the most common disorder throughout the five quarter period presented in **Table 6**. Adjustment disorders accounted for 57% of all neurotic disorders in the latest quarter, in line with previous quarters.

63. Rates of PTSD remained low at 0.4 per 1,000 strength for the latest quarter. This finding has remained consistent for the last five quarters, thus the rate at which PTSD has been assessed at a DCMH has not changed over time.

64. Mood disorders had the second highest rate of mental disorder in each of the five quarters presented, with depressive episodes accounting for 89% of all mood disorders assessed at a DCMH in the latest quarter.

65. Rates of psychoactive substance use remained low; in the latest quarter Service personnel were assessed at a rate of 0.4 per 1,000 strength.

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Table 6: Initial mental disorder assessments for all new episodes of care seen at a DCMH by ICD-10 grouping, October 2011 to December 2012 by quarter, numbers and rates[1] per 1,000 strength.

	ICD-10 description																							
	Psychoactive substance use			*of which disorders due to alcohol*			Mood disorders			*of which depressive episode*			Neurotic disorders			*of which PTSD*			*of which adjustment disorders*			Other mental disorders		
	Patients assessed with a mental disorder																							
Date	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
October - December 2011/12	71	0.4	(0.3 - 0.5)	*67*	*0.3*	*(0.3 - 0.4)*	256	1.3	(1.2 - 1.5)	*218*	*1.1*	*(1.0 - 1.3)*	575	3.0	(2.7 - 3.2)	*68*	*0.3*	*(0.3 - 0.4)*	*362*	*1.9*	*(1.7 - 2.1)*	66	0.3	(0.3 - 0.4)
January - March 2011/12	86	0.4	(0.4 - 0.5)	*85*	*0.4*	*(0.3 - 0.5)*	237	1.2	(1.1 - 1.4)	*210*	*1.1*	*(0.9 - 1.2)*	709	3.7	(3.4 - 4.0)	*77*	*0.4*	*(0.3 - 0.5)*	*434*	*2.3*	*(2.0 - 2.5)*	61	0.3	(0.2 - 0.4)
April - June 2012/13	65	0.3	(0.3 - 0.4)	*61*	*0.3*	*(0.2 - 0.4)*	241	1.3	(1.1 - 1.4)	*230*	*1.2*	*(1.1 - 1.4)*	589	3.1	(2.8 - 3.3)	*66*	*0.3*	*(0.3 - 0.4)*	*353*	*1.9*	*(1.7 - 2.0)*	59	0.3	(0.2 - 0.4)
July - September 2012/13	58	0.3	(0.2 - 0.4)	*53*	*0.3*	*(0.2 - 0.4)*	258	1.4	(1.2 - 1.5)	*232*	*1.2*	*(1.1 - 1.4)*	678	3.6	(3.3 - 3.9)	*94*	*0.5*	*(0.4 - 0.6)*	*386*	*2.0*	*(1.8 - 2.3)*	49	0.3	(0.2 - 0.3)
October - December 2012/13	70	0.4	(0.3 - 0.5)	*64*	*0.3*	*(0.3 - 0.4)*	328	1.8	(1.6 - 2.0)	*291*	*1.6*	*(1.4 - 1.8)*	801	4.3	(4.0 - 4.6)	*79*	*0.4*	*(0.3 - 0.5)*	*454*	*2.5*	*(2.2 - 2.7)*	69	0.4	(0.3 - 0.5)

1. The rates and confidence intervals have been rounded to 1 decimal place (paragraph 23).

Admissions to the MOD's In-patient Contractors

66. **Tables 7 to 9** provide details by demographic breakdowns for the latest five quarters for admissions to in-patient contractors. It is important to note that an individual may be seen for an episode of care at a DCMH and then be admitted to an in-patient facility, therefore individuals may appear in both datasets and the numbers provided in this report. As a result it is not appropriate to add together the DCMH episodes of care and in-patient admissions.

67. During the three-month period October - December 2012, 74 Service personnel were admitted to a MOD in-patient contractor[h], a rate of 0.4 per 1,000 strength.

68. Of the 74 admissions, 47 had been seen at a DCMH between January 2007 and the date of their admission. The remaining 27 patients were admitted to one of the in-patient contractors without Defence Statistics records showing that they had been seen at a DCMH prior to their admission.

Table 7: Admissions to the MOD's in-patient contractors by Service, October 2011 – December 2012 by quarter, numbers and rates[1] per 1,000 strength.

	All admissions			Service								
				Naval Service[2]			Army			RAF		
	Patients assessed with a mental disorder											
Date	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
October - December 2011	74	0.4	(0.3 - 0.5)	~	0.1	(0.0 - 0.3)	61	0.5	(0.4 - 0.7)	~	0.2	(0.1 - 0.4)
January - March 2012	73	0.4	(0.3 - 0.5)	7	0.2	(0.1 - 0.4)	56	0.5	(0.4 - 0.6)	10	0.2	(0.1 - 0.4)
April - June 2012	70	0.4	(0.3 - 0.5)	9	0.3	(0.1 - 0.5)	48	0.4	(0.3 - 0.5)	13	0.3	(0.2 - 0.6)
July - September 2012	87	0.5	(0.4 - 0.6)	14	0.4	(0.2 - 0.7)	65	0.6	(0.4 - 0.7)	8	0.2	(0.1 - 0.4)
October - December 2012	74	0.4	(0.3 - 0.5)	~	0.3	(0.1 - 0.5)	61	0.5	(0.4 - 0.7)	~	0.1	(0.0 - 0.3)

1. The rates and confidence intervals have been rounded to 1 decimal place (paragraph 23).
2. Royal Navy and Royal Marines combined to protect patient confidentiality.
3. Data presented as "~" has been suppressed in accordance with Defence Statistics rounding policy (see paragraph 29).

69. **Table 7** shows the overall admission rate and for each Service remains stable throughout the period presented.

Table 8: Admissions to the MOD's in-patient contractors by gender and rank, October 2011 – December 2012 by quarter, numbers and rates[1] per 1,000 strength.

	Gender						Rank					
	Males			Females			Officers			Other Ranks		
	Patients assessed with a mental disorder											
Date	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
October - December 2011	66	0.4	(0.3 - 0.5)	8	0.4	(0.2 - 0.9)	~	0.1	(0.0 - 0.3)	~	0.4	(0.3 - 0.5)
January - March 2012	65	0.4	(0.3 - 0.5)	8	0.4	(0.2 - 0.9)	~	0.1	(0.0 - 0.3)	~	0.4	(0.3 - 0.5)
April - June 2012	61	0.4	(0.3 - 0.4)	9	0.5	(0.2 - 1.0)	6	0.2	(0.1 - 0.4)	64	0.4	(0.3 - 0.5)
July - September 2012	73	0.4	(0.3 - 0.5)	14	0.8	(0.4 - 1.3)	~	0.1	(0.0 - 0.3)	~	0.5	(0.4 - 0.7)
October - December 2012	~	0.4	(0.3 - 0.5)	~	0.2	(0.0 - 0.5)	~	0.1	(0.0 - 0.3)	~	0.5	(0.4 - 0.6)

1. The rates and confidence intervals have been rounded to 1 decimal place (paragraph 23).
2. Data presented as "~" has been suppressed in accordance with Defence Statistics' rounding policy (see paragraph 29).

70. **Table 8** shows no significant difference in the admission rate between males and females throughout the last five quarters. This was in contrast to the higher rates seen among females attending a MOD DCMH for a new episode of care during the same period.

71. In the latest quarter there was a significant difference in the rate of admission for Other Ranks compared to Officers (0.5 per 1,000 strength and 0.1 per 1,000 strength respectively); this is consistent with the previous quarter. In the three quarters prior to this there was no significant difference between the rate of admission for Officers and Other Ranks.

[h] UK in-patient data provided by South Staffordshire and Shropshire Healthcare NHS Foundation Trust and British Forces Germany in-patient data provided by Guys and St Thomas' Hospital.

Table 9: Admissions to the MOD's in-patient contractors by deployment[1,2], October 2011 – December 2012 by quarter, numbers and rates[3] per 1,000 strength.

	Deployment - Theatres of operation[1]											
	Op TELIC and/or Op HERRICK[2]			*of which*						Neither		
				Op TELIC			*Op HERRICK*[2]					
	Patients assessed with a mental disorder											
Date	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
October - December 2011	49	0.4	(0.3 - 0.5)	26	0.3	(0.2 - 0.5)	39	0.4	(0.3 - 0.6)	25	0.4	(0.2 - 0.5)
January - March 2012	45	0.3	(0.2 - 0.5)	27	0.3	(0.2 - 0.5)	30	0.3	(0.2 - 0.5)	28	0.4	(0.3 - 0.6)
April - June 2012	45	0.4	(0.3 - 0.5)	27	0.4	(0.2 - 0.5)	33	0.4	(0.2 - 0.5)	25	0.4	(0.2 - 0.5)
July - September 2012	56	0.5	(0.3 - 0.6)	23	0.3	(0.2 - 0.5)	51	0.6	(0.4 - 0.7)	31	0.5	(0.3 - 0.6)
October - December 2012	45	0.4	(0.3 - 0.5)	18	0.3	(0.1 - 0.4)	36	0.4	(0.3 - 0.5)	29	0.4	(0.3 - 0.6)

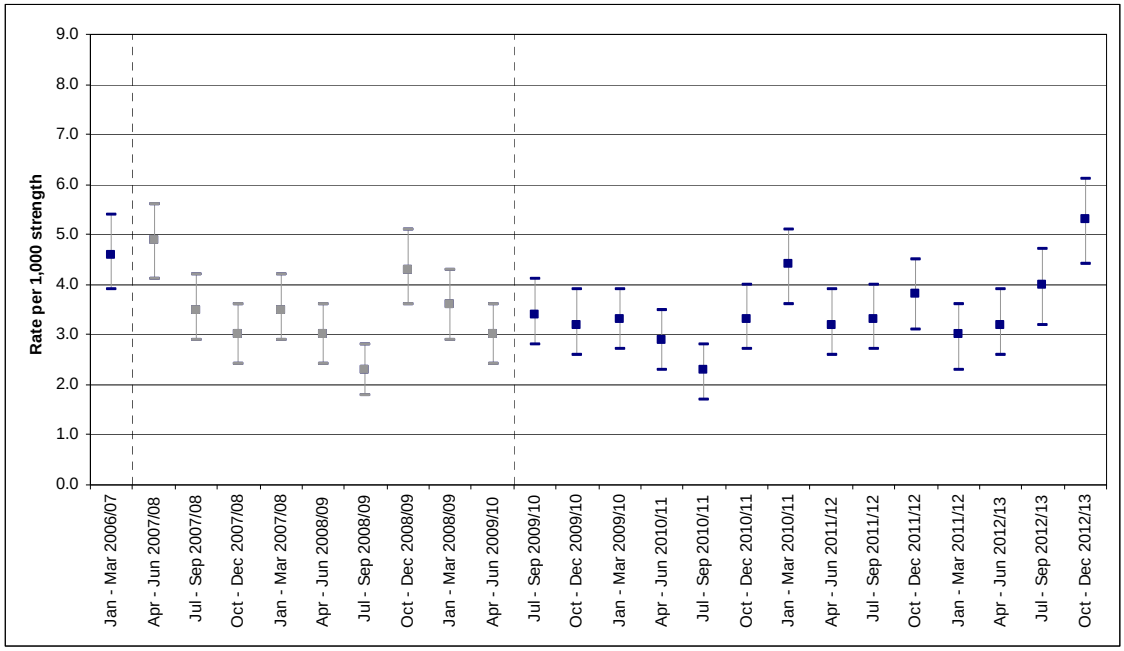
1. Deployment to the wider theatre of operation (see paragraph 25).
2. Data for Afghanistan between 1 January 2003 and 14 October 2005 were not available for person level deployment (see paragraph 26).
3. The rates and confidence intervals have been rounded to 1 decimal place (paragraph 23).

72. **Table 9** shows there was no significant difference in the admission rates between those previously deployed on Op TELIC and/or Op HERRICK and those who had not been previously deployed over each of the five quarters presented.

Annex A

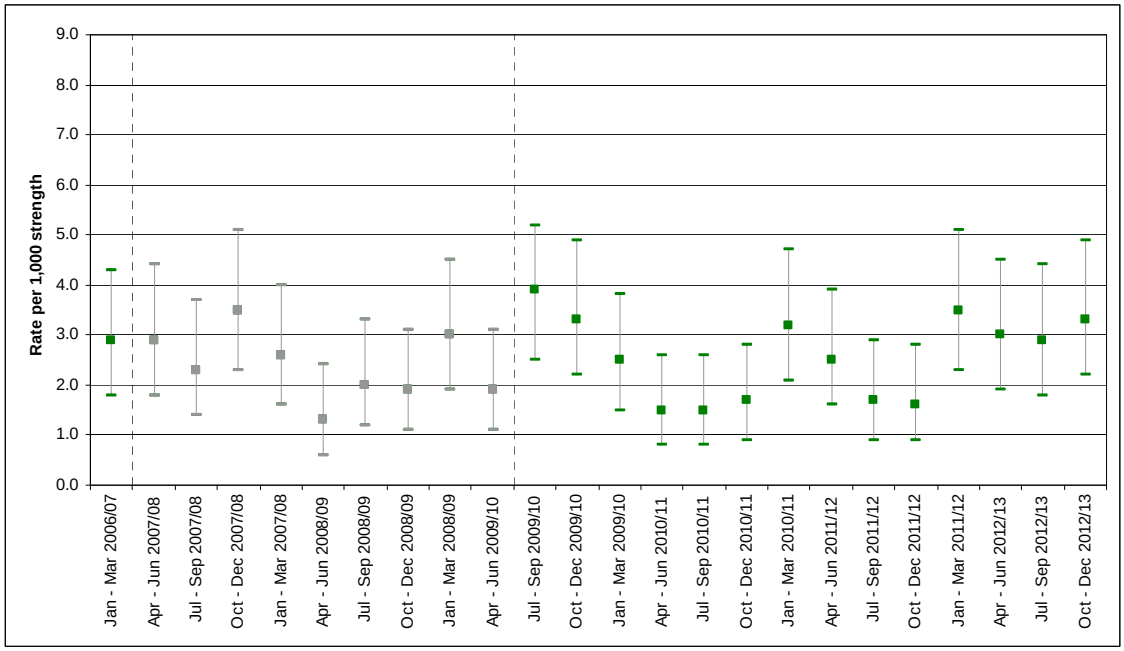
Rate of Armed Forces personnel assessed with a mental disorder quarterly by Service, Time Series, January 2007 to December 2012

Figure A1: Royal Navy personnel assessed with a mental disorder, January 2007 to December 2012[1,2], rates and 95% confidence intervals



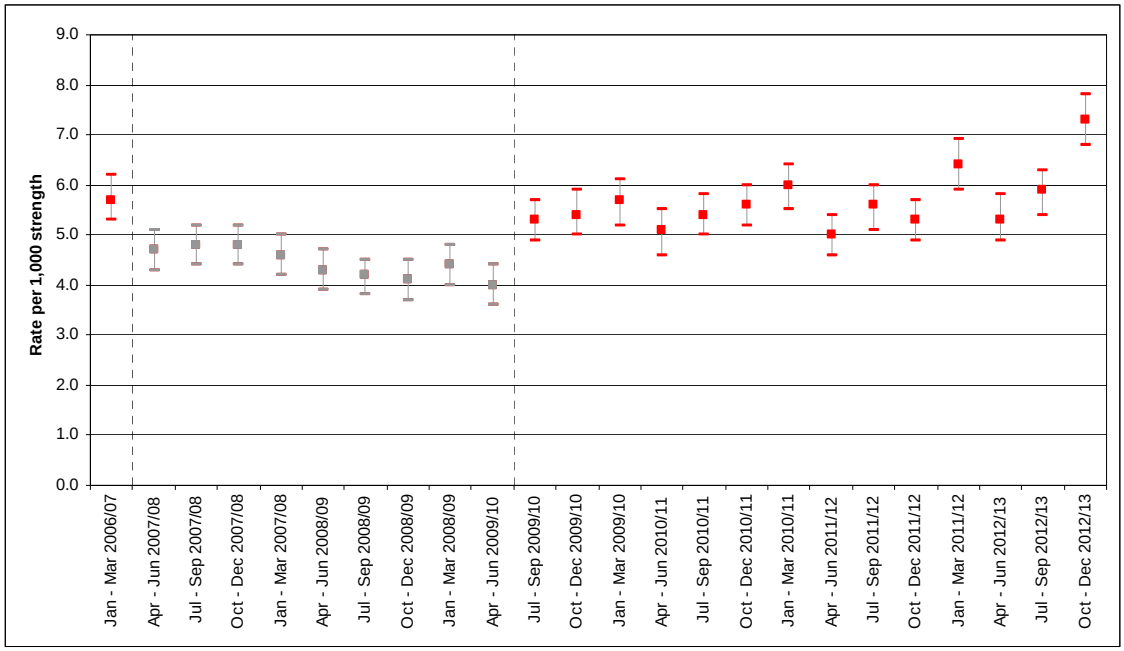
1. January 2007 - June 2009 new attendances, July 2009 onwards new episodes of care (see paragraphs 16 -17).
2. January 2007 represents a genuine baseline as at this point all cases were 'new episodes of care' as this was the start of data capture by Defence Statistics.

Figure A2: Royal Marine personnel assessed with a mental disorder, January 2007 to December 2012[1,2], rates and 95% confidence intervals



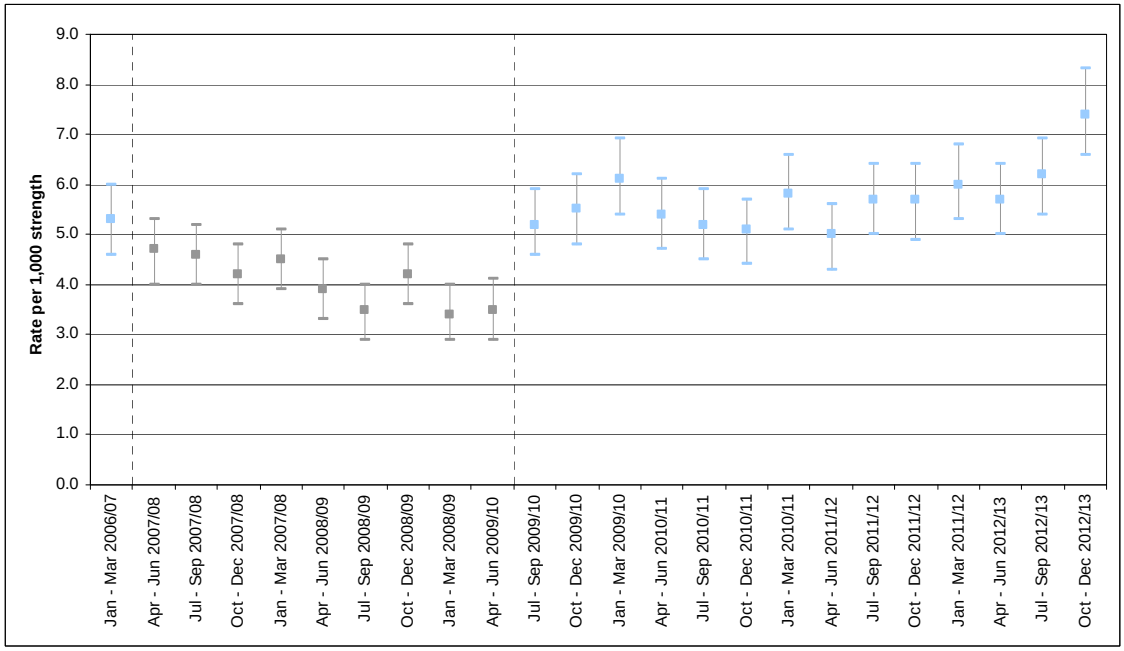
1. January 2007 - June 2009 new attendances, July 2009 onwards new episodes of care (see paragraphs 16 -17).
2. January 2007 represents a genuine baseline as at this point all cases were 'new episodes of care' as this was the start of data capture by Defence Statistics.

Figure A3: Army personnel assessed with a mental disorder, January 2007 to December 2012[1,2], rates and 95% confidence intervals



1. January 2007 - June 2009 new attendances, July 2009 onwards new episodes of care (see paragraphs 16 -17).
2. January 2007 represents a genuine baseline as at this point all cases were 'new episodes of care' as this was the start of data capture by Defence Statistics.

Figure A4: RAF personnel assessed with a mental disorder, January 2007 to December 2012[1,2], rates and 95% confidence intervals



1. January 2007 - June 2009 new attendances, July 2009 onwards new episodes of care (see paragraphs 16 -17).
2. January 2007 represents a genuine baseline as at this point all cases were 'new episodes of care' as this was the start of data capture by Defence Statistics.