UK Armed Forces mental health:
Presenting complaints at MOD Departments of Community Mental Health
January - March 2011

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INTRODUCTION

1. This report provides statistical information on mental health in the UK Armed Forces for the period January 2007 to March 2011. Between the dates 1 January 2007 and 30 June 2009, this report summarises all new referrals of UK Armed Forces personnel to the MOD's Departments of Community Mental Health (DCMHs) for outpatient care, and new admissions to the MOD's in-patient care contractor. From 1 July 2009 onwards, it summarises all **new episodes of care** of UK Armed Forces personnel at the MOD's 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's in-patient care contractor. This data updates previous reports and includes previously unpublished data for January - March 2011.

2. 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.** To ensure these statistics pick up all **new episodes of care**, DASA have made some changes to data collection and validation from 1 July 2009 onwards. From this date, DASA have also included data from 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. Throughout this report the term DCMH includes these four mental health posts. Details of these changes can be found in the section on **'Data, definitions and methods'**.

3. 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

4. During the three-month period January - March 2011, 1,109 new episodes of care for mental disorder were identified within UK Armed Forces personnel, representing a rate of 5.6 per 1,000 strength.

5. For the 1,109 personnel assessed under a new episode of care with a mental disorder, there were some statistically significant findings:

- Rates for Army 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 broadly consistent with previous reports.

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

- The overall rate of mental disorders for those deployed compared to those not deployed was not significantly different.
- The rate of neurotic disorder, including PTSD and adjustment disorder was significantly higher among those who had deployed to Op TELIC and/or Op HERRICK and separately to Op HERRICK compared to those not deployed.
- However, PTSD remains a rare condition, affecting 0.3 per 1,000 strength (N=66) during this three-month period.

Admissions to the MOD's In-patient Contractor

During the three-month period January - March 2011, 46 patients were admitted to the MOD's in-patient care contractor representing a rate of 0.2 per 1,000 strength. 36 of these patients had been seen at a DCMH at some point prior to their admission.

[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.

RESULTS

New Episodes of Care at MOD DCMHs

7. During the three-month period January – March 2011, a total of 1,537 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 7.7 per 1,000 strength[b].

8. **Table 1** provides details of the key socio-demographic characteristics of the 1,537 new episodes of care at the MOD's DCMHs during January – March 2011.

Table 1: New episodes of care at the MOD's DCMHs by demographic and military characteristics, 1 January – 31 March 2011, numbers and rates per 1,000 strength.

Characteristic	Strength[1]	All patients seen	Patients assessed with a mental disorder			Patients assessed without a mental disorder
			Number	Rate	95% CI	
All	**198,400**	**1,537**	**1,109**	**5.6**	**(5.3 - 5.9)**	**428**
Service						
Royal Navy	30,300	201	133	4.4	(3.6 - 5.1)	68
Royal Marines	8,400	38	27	3.2	(2.1 - 4.7)	11
Army	116,500	955	697	6.0	(5.5 - 6.4)	258
RAF	43,200	343	252	5.8	(5.1 - 6.6)	91
Gender						
Males	179,900	1,252	893	5.0	(4.6 - 5.3)	359
Females	18,400	285	216	11.7	(10.2 - 13.3)	69
Rank						
Officers	33,600	127	98	2.9	(2.3 - 3.5)	29
Other ranks	164,700	1,410	1,011	6.1	(5.8 - 6.5)	399
Deployment - Theatres of operation[2]						
Op TELIC and/or Op HERRICK[3]	**123,300**	**951**	**731**	**5.9**	**(5.5 - 6.4)**	**220**
of which, Op TELIC	85,500	608	477	5.6	(5.1 - 6.1)	131
Op HERRICK[3]	80,800	628	481	6.0	(5.4 - 6.5)	147
Neither Op TELIC nor Op HERRICK	**75,000**	**586**	**378**	**5.0**	**(4.5 - 5.5)**	**208**

1. *Strengths data rounded to the nearest 100, so subtotals may not sum to the total. Strengths are a four-month average (see paragraph 35).*
2. *Deployment to the wider theatre of operation (see paragraph 38).*
3. *Does not include personnel deployed to Afghanistan during the period January 2003 to September 2005 (see paragraph 39).*

9. Of the 1,537 new episodes of care, 1,109 (72%) were assessed with a mental disorder, representing an overall rate for new episodes of care for mental disorder of 5.6 per 1,000 strength. There were 428 patients who were recorded as having no mental disorder at their initial assessment.

10. There were some statistically significant differences in the new episodes of care rates between various sub-groups of the patients seen during January - March 2011:

- Army personnel had a significantly higher rate of mental disorder (6.0 per 1,000 strength, 95% CI: 5.5-6.4, N=697) than Royal Navy personnel and Royal Marine personnel (4.4 per 1,000 strength, 95% CI: 3.6-5.1, N=133, 3.2 per 1,000 strength, 95% CI: 2.1-4.7, N=27, respectively).
- Female personnel had a significantly higher rate of mental disorder at 11.7 per 1,000 strength (95% CI: 10.2-13.3, N=216) than male personnel at 5.0 per 1,000 strength (95% CI: 4.6-5.3, N=893).
- Other ranks had a significantly higher rate of mental disorder at 6.1 per 1,000 strength (95% CI: 5.8-6.5, N=1,011) than Officers at 2.9 per 1,000 strength (95% CI: 2.3-3.5, N=98).

11. **Tables 2, 3, 4, 5, 6, 8, 9** and **10** contain comparisons of data across the last five published quarters and annual tables. However, due to the introduction of the revised methodology, interpretation of annual comparisons requires caution. As part of the data validation process, prior to 1 July 2009 DASA identified individuals who had previously attended a DCMH and removed them from the analysis. This method of analysis has been revised, and figures for 1 July 2009 onwards include repeat attendances if they are classified by the DCMH as a new episode of care. This has resulted in an increase in recorded numbers from July 2009 onwards. Proportions across the

[b] Using a four-month average of regular and mobilised reserves strength from 1 January 2011 to 1 April 2011 (see paragraph 35).

quarters, however, have remained broadly the same, suggesting that the revised methodology has not altered the pattern of findings.

12. **Tables 2, 3, 4,** and **5** present the last five quarters and annual totals for the DCMHs and the number of new episodes of care at the DCMHs who were assessed with a mental disorder.

Table 2: Episodes of care at the MOD's DCMHs, 1 January 2007 – 31 March 2011, numbers and rates per 1,000 strength.

		Patients assessed with a mental disorder			Patients assessed without a mental disorder	Presenting complaint information not provided
	All patients seen	Number	Rate	95% CI		
2007	5,649	3,920	19.6	(19.0 - 20.2)	1,353	376
2008	4,465	3,189	16.2	(15.6 - 16.7)	1,276	0
2009 [1]	5,100	3,543	17.7	(17.2 - 18.3)	1,557	0
2010	5,581	3,942	19.6	(19.0 - 20.2)	1,639	0
2011 (to date)	1,537	1,109	5.6	(5.3 - 5.9)	428	0
January - March 2010	1,536	1,068	5.3	(5.0 - 5.6)	468	0
April - June 2010	1,337	940	4.7	(4.4 - 4.9)	397	0
July - September 2010	1,329	942	4.7	(4.4 - 5.0)	387	0
October - December 2010	1,379	992	5.0	(4.7 - 5.3)	387	0
January - March 2011	1,537	1,109	5.6	(5.3 - 5.9)	428	0

1. Jan 2007- Jun 2009 new attendances, July 2009 to date new episodes of care (paragraph 11).

Table 3: Episodes of care at the MOD's DCMHs by Service, 1 January 2007 – 31 March 2011, numbers and rates per 1,000 strength.

	Service												Not known[1]
	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	Number
2007[2]	511	16.1	(14.7 - 17.5)	89	11.6	(9.2 - 14.0)	2,318	20.1	(19.3 - 20.9)	847	18.8	(17.5 - 20.0)	271
2008	413	13.2	(11.9 - 14.5)	61	7.8	(5.8 - 9.7)	1,959	17.2	(16.4 - 17.9)	706	16.1	(14.9 - 17.3)	50
2009[3]	413	13.3	(12.0 - 14.5)	97	12.1	(9.7 - 14.5)	2,244	19.3	(18.5 - 20.1)	779	17.6	(16.4 - 18.9)	10
2010	366	11.8	(10.6 - 13.0)	58	7.1	(5.3 - 8.9)	2,553	21.7	(20.9 - 22.6)	965	21.8	(20.5 - 23.2)	0
2011 (to date)	133	4.4	(3.6 - 5.1)	27	3.2	(2.1 - 4.7)	697	6.0	(5.5 - 6.4)	252	5.8	(5.1 - 6.6)	0
January - March 2010	103	3.3	(2.7 - 3.9)	20	2.5	(1.5 - 3.8)	672	5.7	(5.2 - 6.1)	273	6.1	(5.4 - 6.9)	0
April - June 2010	91	2.9	(2.3 - 3.5)	12	1.5	(0.8 - 2.6)	597	5.1	(4.6 - 5.5)	240	5.4	(4.7 - 6.1)	0
July - September 2010	70	2.3	(1.7 - 2.8)	12	1.5	(0.8 - 2.6)	630	5.4	(5.0 - 5.8)	230	5.2	(4.5 - 5.9)	0
October - December 2010	102	3.3	(2.7 - 4.0)	14	1.7	(0.9 - 2.8)	654	5.6	(5.2 - 6.0)	222	5.1	(4.4 - 5.7)	0
January - March 2011	133	4.4	(3.6 - 5.1)	27	3.2	(2.1 - 4.7)	697	6.0	(5.5 - 6.4)	252	5.8	(5.1 - 6.6)	0

1. Records supplied without identifiers (see paragraph 33).
2. As 376 records have been excluded for lack of ICD-10 information, these data represent a minimum (see paragraph 34).
3. Jan 2007- Jun 2009 new attendances, July 2009 to date new episodes of care (paragraph 11).

Table 4: Episodes of care the MOD's DCMHs by gender and rank, 1 January 2007 – 31 March 2011, numbers and rates per 1,000 strength.

	Gender						Rank						Not known[1]
	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	Number
2007[2]	3,065	16.9	(16.3 - 17.5)	700	38.4	(35.5 - 41.2)	251	7.3	(6.4 - 8.2)	3,514	21.2	(20.5 - 21.9)	271
2008	2,511	14.0	(13.5 - 14.6)	628	34.8	(32.1 - 37.6)	240	7.2	(6.3 - 8.1)	2,899	17.7	(17.1 - 18.4)	50
2009[3]	2,833	15.6	(15.0 - 16.2)	700	38.9	(36.0 - 41.8)	339	10.2	(9.1 - 11.3)	3,194	19.2	(18.5 - 19.9)	10
2010	3,137	17.2	(16.6 - 17.8)	805	43.1	(40.1 - 46.0)	356	10.5	(9.4 - 11.6)	3,586	21.4	(20.7 - 22.1)	0
2011 (to date)	893	5.0	(4.6 - 5.3)	216	11.7	(10.2 - 13.3)	98	2.9	(2.3 - 3.5)	1,011	6.1	(5.8 - 6.5)	0
January - March 2010	821	4.5	(4.2 - 4.8)	247	13.1	(11.5 - 14.8)	101	3.0	(2.4 - 3.6)	967	5.7	(5.4 - 6.1)	0
April - June 2010	759	4.1	(3.8 - 4.4)	181	9.6	(8.2 - 11.0)	93	2.7	(2.2 - 3.3)	847	5.0	(4.7 - 5.4)	0
July - September 2010	756	4.2	(3.9 - 4.5)	186	10.0	(8.6 - 11.4)	72	2.1	(1.6 - 2.6)	870	5.2	(4.9 - 5.6)	0
October - December 2010	801	4.4	(4.1 - 4.7)	191	10.3	(8.8 - 11.7)	90	2.7	(2.1 - 3.2)	902	5.4	(5.1 - 5.8)	0
January - March 2011	893	5.0	(4.6 - 5.3)	216	11.7	(10.2 - 13.3)	98	2.9	(2.3 - 3.5)	1,011	6.1	(5.8 - 6.5)	0

1. Records supplied without identifiers (see paragraph 33).
2. As 376 records have been excluded for lack of ICD-10 information, these data represent a minimum (see paragraph 34).
3. Jan 2007- Jun 2009 new attendances, July 2009 to date new episodes of care (paragraph 11).

Table 5: Episodes of care at the MOD's DCMHs by deployment[1], 1 January 2007 – 31 March 2011, numbers and rates per 1,000 strength.

	Deployment - Theatres of operation												
				of which									Not known[4]
	Op TELIC and/or Op HERRICK[3]			*Op TELIC*			*Op HERRICK*[3]			Neither			
	Patients assessed with a mental disorder												
Date	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number
2007[2]	1,898	18.1	(17.3 - 19.0)	*1,725*	*18.8*	*(17.9 - 19.7)*	*375*	*12.5*	*(11.2 - 13.8)*	1,867	19.6	(18.7 - 20.5)	271
2008	1,769	15.8	(15.0 - 16.5)	*1,463*	*15.8*	*(15.0 - 16.6)*	*661*	*15.0*	*(13.9 - 16.2)*	1,370	16.1	(15.3 - 17.0)	50
2009[5]	2,151	18.3	(17.5 - 19.0)	*1,648*	*18.0*	*(17.1 - 18.8)*	*1,049*	*18.2*	*(17.1 - 19.3)*	1,382	16.9	(16.0 - 17.7)	10
2010	2,495	20.4	(19.6 - 21.2)	*1,682*	*19.0*	*(18.1 - 19.9)*	*1,582*	*21.7*	*(20.6 - 22.7)*	1,447	18.3	(17.4 - 19.3)	0
2011 (to date)	731	5.9	(5.5 - 6.4)	*477*	*5.6*	*(5.1 - 6.1)*	*481*	*6.0*	*(5.4 - 6.5)*	378	5.0	(4.5 - 5.5)	0
January - March 2010	662	5.5	(5.1 - 5.9)	*468*	*5.2*	*(4.7 - 5.7)*	*393*	*5.8*	*(5.3 - 6.4)*	406	5.0	(4.5 - 5.4)	0
April - June 2010	579	4.7	(4.4 - 5.1)	*395*	*4.4*	*(4.0 - 4.9)*	*351*	*4.9*	*(4.4 - 5.4)*	361	4.5	(4.0 - 5.0)	0
July - September 2010	625	5.1	(4.7 - 5.5)	*402*	*4.6*	*(4.1 - 5.0)*	*420*	*5.7*	*(5.1 - 6.2)*	317	4.1	(3.6 - 4.5)	0
October - December 2010	629	5.1	(4.7 - 5.5)	*417*	*4.8*	*(4.3 - 5.3)*	*418*	*5.3*	*(4.8 - 5.8)*	363	4.8	(4.3 - 5.3)	0
January - March 2011	731	5.9	(5.5 - 6.4)	*477*	*5.6*	*(5.1 - 6.1)*	*481*	*6.0*	*(5.4 - 6.5)*	378	5.0	(4.5 - 5.5)	0

1. Deployment to the wider theatre of operation (see paragraph 38).
2. As 376 records have been excluded for lack of ICD-10 information, these data represent a minimum (see paragraph 34).
3. Does not include personnel deployed to Afghanistan during the period January 2003 to September 2005 (see paragraph 39).
4. Records supplied without identifiers (see paragraph 33).
5. Jan 2007- Jun 2009 new attendances, July 2009 to date new episodes of care (paragraph 11).

13. **Table 2** shows that the overall rate of patients assessed with a mental disorder during the period January - March 2011 was slightly higher at 5.6 per 1,000 strength than the period January - March 2010 at 5.3 per 1,000 strength. These figures have also increased slightly compared to the previous quarter October - December 2010 at 5.0 per 1,000 strength, however this increase was not significant.

14. **Tables 3** and **4** show that over the last five quarters, the following trends have remained consistent and statistically significant during the last four quarters:

- Rates were higher among Army personnel compared to Royal Navy and Royal Marines personnel.
- Females had significantly higher rates than males.
- Other ranks had significantly higher rates than Officers.

15. **Table 5** shows that the DCMH attendance rate for the last quarter is **not statistically significantly higher** among those who have deployed to Op TELIC and/or Op HERRICK than those who have not been identified as having deployed, (5.9 per 1,000 strength, 95% CI 5.5-6.4, N=731 compared to 5.0 per 1,000 strength, 95% CI 4.5-5.5, N=378).

16. The DCMH attendance rate is **not statistically significantly higher** among those who have deployed to Op HERRICK compared to those who have deployed to Op TELIC, (6.0 per 1,000 strength, 95% CI 5.4-6.5, N=481, compared to 5.6 per 1,000 strength, 95% CI 5.1-6.1, N=477).

Initial mental disorder assessment

17. **Table 6** (see page 5) provides details of the types of presenting complaints, by ICD-10 grouping, for the 1,109 patients seen for a new episode of care during January – March 2011 and assessed with a mental disorder. The table also includes data for the previous four quarters.

18. In line with previous reports, neurotic disorders were the most common initial assessment for patients with a mental disorder. The rate of neurotic disorders was 3.4 per 1,000 strength (95% CI: 3.1-3.6, N=668) which is statistically significantly higher than rates of any other mental disorder groupings. Rates of post-traumatic stress disorder (PTSD) remained low at a rate of 0.3 per 1,000 strength. For all major mental health groupings, rates for January – March 2011 were broadly consistent with the previous four quarters.

Table 6: Initial mental disorder assessments for all new episodes of care seen at a DCMH by ICD-10 grouping, 1 January 2007 to 31 March 2011, numbers and rates per 1,000 strength.

	ICD-10 description																						
	Psychoactive substance use			*of which disorders due to alcohol* [1]			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
2007 [1]	435	2.2	(2.0 - 2.4)	*308*	*1.5*	*(1.4 - 1.7)*	897	4.5	(4.2 - 4.8)	*738*	*3.7*	*(3.4 - 4.0)*	2,340	11.7	(11.2 - 12.2)	*180*	*0.9*	*(0.8 - 1.0)*	*1,384*	*6.9*	*(6.6 - 7.3)*	248	1.2	(1.1 - 1.4)
2008	326	1.7	(1.5 - 1.8)	*310*	*1.6*	*(1.4 - 1.7)*	734	3.7	(3.5 - 4.0)	*622*	*3.2*	*(2.9 - 3.4)*	1,863	9.5	(9.0 - 9.9)	*156*	*0.8*	*(0.7 - 0.9)*	*1,144*	*5.8*	*(5.5 - 6.1)*	266	1.4	(1.2 - 1.5)
2009 [2]	330	1.7	(1.5 - 1.8)	*312*	*1.6*	*(1.4 - 1.7)*	827	4.1	(3.9 - 4.4)	*756*	*3.8*	*(3.5 - 4.1)*	2,115	10.6	(10.1 - 11.0)	*172*	*0.9*	*(0.7 - 1.0)*	*1,264*	*6.3*	*(6.0 - 6.7)*	271	1.4	(1.2 - 1.5)
2010	309	1.5	(1.4 - 1.7)	*293*	*1.5*	*(1.3 - 1.6)*	901	4.5	(4.2 - 4.8)	*835*	*4.2*	*(3.9 - 4.4)*	2,443	12.2	(11.7 - 12.6)	*249*	*1.2*	*(1.1 - 1.4)*	*1,568*	*7.8*	*(7.4 - 8.2)*	289	1.4	(1.3 - 1.6)
2011 (to date)	93	0.5	(0.4 - 0.6)	*91*	*0.5*	*(0.4 - 0.6)*	255	1.3	(1.1 - 1.4)	*238*	*1.2*	*(1.0 - 1.4)*	668	3.4	(3.1 - 3.6)	*66*	*0.3*	*(0.3 - 0.4)*	*427*	*2.2*	*(1.9 - 2.4)*	93	0.5	(0.4 - 0.6)
January - March 2010	75	0.4	(0.3 - 0.5)	*72*	*0.4*	*(0.3 - 0.4)*	260	1.3	(1.1 - 1.4)	*237*	*1.2*	*(1.0 - 1.3)*	655	3.2	(3.0 - 3.5)	*62*	*0.3*	*(0.2 - 0.4)*	*396*	*2.0*	*(1.8 - 2.1)*	78	0.4	(0.3 - 0.5)
April - June 2010	78	0.4	(0.3 - 0.5)	*72*	*0.4*	*(0.3 - 0.4)*	212	1.0	(0.9 - 1.2)	*199*	*1.0*	*(0.8 - 1.1)*	579	2.9	(2.6 - 3.1)	*61*	*0.3*	*(0.2 - 0.4)*	*374*	*1.9*	*(1.7 - 2.0)*	71	0.4	(0.3 - 0.4)
July - September 2010	67	0.3	(0.3 - 0.4)	*64*	*0.3*	*(0.2 - 0.4)*	196	1.0	(0.8 - 1.1)	*183*	*0.9*	*(0.8 - 1.0)*	608	3.0	(2.8 - 3.3)	*68*	*0.3*	*(0.3 - 0.4)*	*396*	*2.0*	*(1.8 - 2.2)*	71	0.4	(0.3 - 0.4)
October - December 2010	89	0.4	(0.4 - 0.5)	*85*	*0.4*	*(0.3 - 0.5)*	233	1.2	(1.0 - 1.3)	*216*	*1.1*	*(0.9 - 1.2)*	601	3.0	(2.8 - 3.3)	*58*	*0.3*	*(0.2 - 0.4)*	*402*	*2.0*	*(1.8 - 2.2)*	69	0.3	(0.3 - 0.4)
January - March 2011	93	0.5	(0.4 - 0.6)	*91*	*0.5*	*(0.4 - 0.6)*	255	1.3	(1.1 - 1.4)	*238*	*1.2*	*(1.0 - 1.4)*	668	3.4	(3.1 - 3.6)	*66*	*0.3*	*(0.3 - 0.4)*	*427*	*2.2*	*(1.9 - 2.4)*	93	0.5	(0.4 - 0.6)

1. *Specific data for disorders due to alcohol is not available for the period January - March 2007.*
2. *Jan 2007- Jun 2009 new attendances, July 2009 to date new episodes of care (paragraph 11).*
3. *The rates and confidence intervals have been rounded to 1 decimal place (paragraph 36).*

19. **Table 7** provides details of the types of mental disorder by the patients' past deployment on Op TELIC and/or Op HERRICK. The rate ratios presented provide a comparison of cases seen between new episodes of care for attendees identified as having deployed to a theatre and those who have not been identified as having deployed to either theatre. A rate ratio less than 1 indicates lower rates in those deployed than those not deployed, whereas a rate ratio greater than 1 indicates higher rates in those deployed than those not deployed. This difference is statistically significant if 1.0 is not contained within the 95% Confidence Interval.

Table 7: Initial mental disorder assessments for all new episodes of care seen at a DCMH by deployment[1] and ICD-10 grouping, 1 January – 31 March 2011, numbers and rates per 1,000 strength.

		Deployment - Theatres of operation									
		Op TELIC and/or Op HERRICK[2]			*of which*						Neither
					Op TELIC			*Op HERRICK*[2]			
ICD-10 description	All patients seen	Patients seen	Rate ratio	95% CI	Patients seen	Rate ratio	95% CI	Patients seen	Rate ratio	95% CI	Patients seen
All patients seen	**1,537**	**951**			***608***			***628***			**586**
All patients assessed with a mental disorder	**1,109**	**731**	1.2	(1.0 - 1.3)	***477***	*1.1*	*(1.0 - 1.3)*	***481***	*1.2*	*(1.0 - 1.4)*	**378**
Psychoactive substance use	**93**	**58**	**1.0**	**(0.7 - 1.5)**	***33***	***0.8***	***(0.5 - 1.3)***	***40***	***1.1***	***(0.7 - 1.7)***	**35**
of which disorders due to alcohol	*91*	*56*	*1.0*	*(0.6 - 1.5)*	*31*	*0.8*	*(0.5 - 1.3)*	*40*	*1.1*	*(0.7 - 1.7)*	*35*
Mood disorders	**255**	**136**	**0.7**	**(0.5 - 0.9)**	***109***	***0.8***	***(0.6 - 1.0)***	***72***	***0.6***	***(0.4 - 0.8)***	**119**
of which Depressive episode	*238*	*127*	*0.7*	*(0.5 - 0.9)*	*100*	*0.8*	*(0.6 - 1.0)*	*71*	*0.6*	*(0.4 - 0.8)*	*111*
Neurotic disorders	**668**	**483**	**1.6**	**(1.3 - 1.9)**	***302***	***1.4***	***(1.2 - 1.7)***	***333***	***1.7***	***(1.4 - 2.0)***	**185**
of which PTSD	*66*	*57*	*3.9*	*(1.9 - 7.8)*	*22*	*2.1*	*(1.0 - 4.7)*	*50*	*5.2*	*(2.5 - 10.5)*	*9*
of which Adjustment disorders	*427*	*299*	*1.4*	*(1.2 - 1.7)*	*187*	*1.3*	*(1.0 - 1.6)*	*215*	*1.6*	*(1.3 - 1.9)*	*128*
Other mental disorders	**93**	**54**	**0.8**	**(0.6 - 1.3)**	***33***	***0.7***	***(0.5 - 1.2)***	***36***	***0.9***	***(0.5 - 1.3)***	**39**
No mental disorder	*428*	*220*			*131*			*147*			208

1. Deployment to the wider theatre of operation (see paragraph 38).
2. Does not include personnel deployed to Afghanistan during the period January 2003 to September 2005 (see paragraph 39).
3. Rate ratio compares personnel identified as deployed to these theatres of operation with those not identified as deployed to either theatre of operation (see paragraph 39).

20. **Table 7** shows that during January - March 2011 the overall rates of mental disorder were not significantly higher for those deployed on Op TELIC and/or Op HERRICK compared to those not deployed there. However when looking at the rates of specific mental disorders, there were some statistically significant differences between those deployed to Op TELIC and/or Op HERRICK and those not identified as having deployed there;

- Rates of mood disorder are lower in those who have deployed to Op TELIC and/or Op HERRICK at 0.7 per 1,000 strength. This represents a decreased risk of 30%.

- Rates of PTSD are higher in those who have deployed to Op TELIC and/or Op HERRICK at 3.9 per 1,000 strength. This represents an increase risk for PTSD of 290% for Service personnel deployed to Op TELIC and/or Op HERRICK. For those deployed to Op HERRICK there is an increased risk of 420% (5.2 per 1,000 strength).

- Rates of adjustment disorder are higher in those who have deployed to Op TELIC and/or Op HERRICK at 1.4 per 1,000 strength. This represents an increase risk for adjustment disorder of 40% for Service personnel who have previously deployed.

Admissions to the MOD's In-patient Contractor

21. During the three-month period January - March 2011, there were 46 admissions of Service personnel to the MOD's in-patient contractor which corresponds to a rate of 0.2 per 1,000 strength.

22. Of the 46 personnel admitted during January - March 2011, 36 had been seen at a DCMH between January 2007 and the date of their admission. The remaining 10 patients were admitted to the in-patient contractor without DASA's records showing that they had been seen at a DCMH. They are likely to have been emergency admissions.

23. **Tables 8, 9** and **10** provide details of all new admissions to the MOD's in-patient care contractor between January 2007 and June 2009 and all admissions to the MOD's in-patient care contractor between July 2009 and March 2011.

Table 8: Admissions to the MOD's in-patient contractor by Service, 1 January 2007 – 31 March 2011 numbers and rates per 1,000 strength.

	All admissions			Service								
				Naval Service[1]			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
2007	247	1.2	(1.1 - 1.4)	42	1.1	(0.7 - 1.4)	165	1.4	(1.2 - 1.6)	40	0.9	(0.6 - 1.2)
2008	213	1.1	(0.9 - 1.2)	49	1.3	(0.9 - 1.6)	119	1.0	(0.9 - 1.2)	45	1.0	(0.7 - 1.3)
2009 [2]	231	1.2	(1.0 - 1.3)	45	1.1	(0.8 - 1.5)	143	1.2	(1.0 - 1.4)	43	1.0	(0.7 - 1.3)
2010	238	1.2	(1.0 - 1.3)	~	1.0	(0.7 - 1.3)	169	1.4	(1.2 - 1.7)	~	0.7	(0.5 - 0.9)
2011 (to date)	46	0.2	(0.2 - 0.3)	5	0.1	(0.0 - 0.3)	34	0.3	(0.2 - 0.4)	7	0.2	(0.1 - 0.3)
January - March 2010	69	0.3	(0.3 - 0.4)	15	0.4	(0.2 - 0.6)	43	0.4	(0.3 - 0.5)	11	0.2	(0.1 - 0.4)
April - June 2010	61	0.3	(0.2 - 0.4)	11	0.3	(0.1 - 0.5)	41	0.3	(0.2 - 0.5)	9	0.2	(0.1 - 0.4)
July - September 2010	52	0.3	(0.2 - 0.3)	7	0.2	(0.1 - 0.4)	36	0.3	(0.2 - 0.4)	9	0.2	(0.1 - 0.4)
October - December 2010	56	0.3	(0.2 - 0.4)	~	0.1	(0.0 - 0.3)	49	0.4	(0.3 - 0.5)	~	0.0	(0.0 - 0.2)
January - March 2011	46	0.2	(0.2 - 0.3)	5	0.1	(0.0 - 0.3)	34	0.3	(0.2 - 0.4)	7	0.2	(0.1 - 0.3)

1. *Royal Navy and Royal Marines combined to protect patient confidentiality.*
2. *Jan 2007- Jun 2009 new attendances, July 2009 to date all admissions (paragraph 23).*
3. *Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 42).*
4. *The rates and confidence intervals have been rounded to 1 decimal place (paragraph 36).*

Table 9: Admissions to the MOD's in-patient contractor by gender and rank, 1 January 2007 – 31 March 2011, numbers and rates 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
2007	206	1.1	(1.0 - 1.3)	41	2.2	(1.6 - 2.9)	18	0.5	(0.3 - 0.8)	229	1.4	(1.2 - 1.6)
2008	173	1.0	(0.8 - 1.1)	40	2.2	(1.5 - 2.9)	18	0.5	(0.3 - 0.9)	195	1.2	(1.0 - 1.4)
2009 [1]	196	1.1	(0.9 - 1.2)	35	1.9	(1.3 - 2.6)	19	0.6	(0.3 - 0.9)	212	1.3	(1.1 - 1.4)
2010	208	1.1	(1.0 - 1.3)	30	1.6	(1.0 - 2.1)	21	0.5	(0.3 - 0.8)	216	1.3	(1.2 - 1.5)
2011 (to date)	~	0.3	(0.2 - 0.3)	~	0.1	(0.0 - 0.3)	0	0.0	(0.0 - 0.1)	46	0.3	(0.2 - 0.4)
January - March 2010	56	0.3	(0.2 - 0.4)	13	0.7	(0.4 - 1.2)	7	0.2	(0.1 - 0.4)	62	0.4	(0.3 - 0.5)
April - June 2010	50	0.3	(0.2 - 0.3)	11	0.6	(0.3 - 1.0)	~	0.1	(0.0 - 0.3)	~	0.3	(0.3 - 0.4)
July - September 2010	~	0.3	(0.2 - 0.3)	~	0.2	(0.0 - 0.5)	~	0.1	(0.0 - 0.3)	~	0.3	(0.2 - 0.4)
October - December 2010	~	0.3	(0.2 - 0.4)	~	0.2	(0.0 - 0.5)	6	0.2	(0.1 - 0.4)	50	0.3	(0.2 - 0.4)
January - March 2011	~	0.3	(0.2 - 0.3)	~	0.1	(0.0 - 0.3)	0	-	-	46	0.3	(0.2 - 0.4)

1. *Jan 2007- Jun 2009 new attendances, July 2009 to date all admissions (paragraph 23).*
2. *Data presented as "~" has been suppressed in accordance with DASA's rounding policy (see paragraph 42).*
3. *The rates and confidence intervals have been rounded to 1 decimal place (paragraph 36).*

Table 10: Admissions to the MOD's in-patient contractor by deployment[1], 1 January 2007 – 31 March 2011, numbers and rates per 1,000 strength.

	Deployment - Theatres of operation											
	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
2007	123	1.2	(1.0 - 1.4)	*111*	*1.2*	*(1.0 - 1.4)*	*33*	*1.1*	*(0.7 - 1.5)*	124	1.3	(1.1 - 1.5)
2008	98	0.9	(0.7 - 1.0)	*80*	*0.9*	*(0.7 - 1.1)*	*35*	*0.8*	*(0.5 - 1.1)*	115	1.4	(1.1 - 1.6)
2009 [3]	134	1.1	(0.9 - 1.3)	*113*	*1.2*	*(1.0 - 1.5)*	*52*	*0.9*	*(0.7 - 1.1)*	97	1.2	(0.9 - 1.4)
2010	121	1.0	(0.8 - 1.2)	*88*	*1.0*	*(0.8 - 1.2)*	*70*	*1.0*	*(0.7 - 1.2)*	117	1.5	(1.2 - 1.8)
2011 (to date)	32	0.3	(0.2 - 0.3)	*25*	*0.3*	*(0.2 - 0.4)*	*20*	*0.2*	*(0.2 - 0.4)*	14	0.2	(0.1 - 0.3)
January - March 2010	38	0.3	(0.2 - 0.4)	*30*	*0.3*	*(0.2 - 0.5)*	*23*	*0.3*	*(0.2 - 0.5)*	31	0.4	(0.2 - 0.5)
April - June 2010	28	0.2	(0.2 - 0.3)	*23*	*0.3*	*(0.2 - 0.4)*	*12*	*0.2*	*(0.1 - 0.3)*	33	0.4	(0.3 - 0.6)
July - September 2010	30	0.2	(0.2 - 0.3)	*20*	*0.2*	*(0.1 - 0.4)*	*19*	*0.3*	*(0.2 - 0.4)*	22	0.3	(0.2 - 0.4)
October - December 2010	25	0.2	(0.1 - 0.3)	*15*	*0.2*	*(0.1 - 0.3)*	*16*	*0.2*	*(0.1 - 0.3)*	31	0.4	(0.3 - 0.6)
January - March 2011	32	0.3	(0.2 - 0.3)	*25*	*0.3*	*(0.2 - 0.4)*	*20*	*0.2*	*(0.2 - 0.4)*	14	0.2	(0.1 - 0.3)

1. *Deployment to the wider theatre of operation (see paragraph 38).*
2. *Does not include personnel deployed to Afghanistan during the period January 2003 to September 2005 (see paragraph 39).*
3. *Jan 2007- Jun 2009 new attendances, July 2009 to date all admissions (paragraph 23).*
4. *The rates and confidence intervals have been rounded to 1 decimal place (paragraph 36).*

24. Overall rates of admission remained consistent with previous quarters:
    - There was no significant difference in the admission rates between Services.

- There was no significant difference in the admission rate between males and females.
- The admission rate was higher for other ranks compared to officers; however this is due to no officers being admitted during this period.
- There was no significant difference in admission rates between those deployed on Op TELIC and/or Op HERRICK and those who had not been deployed.

POINTS TO NOTE

25. 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.

26. Mental health problems are present in both civilian and military populations and result from multi-factorial issues. The Surgeon General's Department (SGD) 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 will take time produce attitudinal cultural change.

27. 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[c].

DATA, DEFINITIONS AND METHODS

28. To ensure these statistics pick up all new episodes of care, 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, DASA reviewed the methodology and expanded our 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.

29. From July 2009 onwards, DASA 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 included these four mental health posts.

30. As a result of the change in methodology, recorded numbers for Q3 2009 onwards have increased from previous quarters at the point where the methodology changed. This increase should be treated with caution, however, as is clear by comparison to the figures produced using the previous methods, that this increase is due to the change in the methodology used and not an increase in the number of Armed Forces personnel in attendance at a DCMH (see UK Armed Forces mental health reports July – September 2009 and October – December 2009 for methodology comparisons). Importantly, the patterns and main trends have remained the same and high profile findings such as rates of PTSD and substance abuse have not significantly changed.

31. 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).

[c] 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.

32. 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 **Findings** section, these cases are referred to as "assessed without a mental disorder".

33. Up to 2009 if Service personnel withheld consent, their data was supplied in fully anonymised format, resulting in 331 cases for which DASA have no demographic information and are reported as 'not known'. In 2009 DCMH staff agreed to collect basic demographic information (Service, gender, rank and age) for Service personnel who withheld consent thus enabling DASA to include these cases within the tables. For the latest quarter, six cases were included in the analysis, but since they were supplied in fully anonymous format, could not be verified or linked to personnel data.

34. During 2007, DCMH staff were not required to complete ICD-10 information in their monthly returns and DASA received 376 records that did not have information regarding a specific mental disorder. We were therefore unable to ascertain whether these individuals had a mental disorder or not, and these records have been excluded from tables analysing 'patients assessed with a mental disorder'. From 2008 onwards, DCMH staff were unable to return records without completing ICD-10 information, so this data is present for all later years.

35. 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 January 2011 and April 2011 divided by four for Q1 2011). 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.

36. The rates and confidence intervals presented have been rounded to 1decimal 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.

37. DASA 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[d] and data since April 2007 is obtained from the Joint Personnel Administration (JPA) system. The data covers deployments on Operation TELIC (Iraq) (2003-2009) and Operation HERRICK (Afghanistan) (2001-present).

38. The deployment data presented in this report represent deployments to the theatre of operation and not deployment to a specific country ie. Deployment to the Iraq theatre of operation includes deployment to 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.

39. 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. **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.**

40. Operation TELIC is the name for UK operations in Iraq which started in March 2003 and finished in July 2009. 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.

41. 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).

[d] 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 DASA's deployment database, reported a cohort error rate of less than 0.5 per cent.

42. In line with DASA's 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.

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