

UK Armed Forces mental health: Presenting complaints at MOD Departments of Community Mental Health April – June 2011

30th September 2011

Issued By:

Defence Analytical
Services and Advice
(DASA)
Spur 7 B Block
Ensleigh
Bath
BA1 5AB

Enquiries

Press Office:
020 721 83253

Statistical Enquiries:

Dr Kate Harrison
Head of Health Information
DASA
Tel: 01225 468456
kate.harrison@dasa.mod.uk

Internet:

<http://www.dasa.mod.uk>

DASA Welcome Feedback

If you have any comments
or questions about this
publication or about DASA
statistics in general, you
can contact us as follows:

Email:

[DASA-enquiries-
mailbox@mod.uk](mailto:DASA-enquiries-mailbox@mod.uk)

Visit the DASA website

www.dasa.mod.uk

and complete the feedback
form.

INTRODUCTION

1. This report provides statistical information on mental health in the UK Armed Forces for the period April 2007 - June 2011. Between the dates 1 April 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 This data updates previous reports and includes previously unpublished data for 1 April to 30 June 2011. The report now also covers financial years from 2007/08 as requested by the Surgeon General.

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 April - June 2011, 916 new episodes of care for mental disorder were identified within UK Armed Forces personnel, representing a rate of 4.6 per 1,000 strength.

5. For the 916 personnel assessed for a new episode of care with a mental disorder, 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 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 was not significantly different for those who had previously deployed compared to those who have not previously deployed.
- The rate of PTSD was significantly higher among those who had previously deployed to Op TELIC and/or Op HERRICK compared to those who have not previously deployed.
- However, PTSD remains a rare condition, affecting 0.3 per 1,000 strength (N=59) during this three-month period.

Admissions to the MOD's In-patient Contractor

During the three-month period April to June 2011, there were 65 admissions to the MOD's in-patient care contractor representing a rate of 0.3 per 1,000 strength. 45 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 April - June 2011, a total of 1,219 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 6.1 per 1,000 strength^b.

8. **Table 1** provides details of the key socio-demographic characteristics of the 1,219 new episodes of care at the MOD's DCMHs during April - June 2011.

Table 1: New episodes of care at the MOD's DCMHs by demographic characteristics, 1 April 2011 – 30 June 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	197,300	1,219	916	4.6	(4.3 - 4.9)	303
Service						
Royal Navy	29,700	149	96	3.2	(2.6 - 3.9)	53
Royal Marines	8,300	26	21	2.5	(1.6 - 3.9)	5
Army	116,600	760	587	5.0	(4.6 - 5.4)	173
RAF	42,800	284	212	5.0	(4.3 - 5.6)	72
Gender						
Males	179,000	989	737	4.1	(3.8 - 4.4)	252
Females	18,300	230	179	9.8	(8.4 - 11.2)	51
Rank						
Officers	33,500	105	87	2.6	(2.1 - 3.1)	18
Other ranks	163,800	1,114	829	5.1	(4.7 - 5.4)	285
Deployment - Theatres of operation²						
Op TELIC and/or Op HERRICK ³	124,300	709	560	4.5	(4.1 - 4.9)	149
of which, Op TELIC	84,100	465	374	4.4	(4.0 - 4.9)	91
Op HERRICK ³	84,700	505	401	4.7	(4.3 - 5.2)	104
Neither Op TELIC nor Op HERRICK	73,000	510	356	4.9	(4.4 - 5.4)	154

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 1,219 new episodes of care, 916 (75%) were assessed with a mental disorder, representing an overall rate for new episodes of care for mental disorder of 4.6 per 1,000 strength. There were 303 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 April - June 2011:

- Army and RAF personnel had a significantly higher rate of mental disorder (5.0 per 1,000 strength, 95% CI: 4.6-5.4, N=587 and 5.0 per 1,000 strength, 95% CI: 4.3-5.6, N=212 respectively) than Royal Navy personnel and Royal Marine personnel (3.2 per 1,000 strength, 95% CI: 2.6-3.9, N=96 and 2.5 per 1,000 strength, 95% CI: 1.6-3.9, N=21, respectively).
- Female personnel had a significantly higher rate of mental disorder at 9.8 per 1,000 strength (95% CI: 8.4-11.2, N=179) than male personnel at 4.1 per 1,000 strength (95% CI: 3.8-4.4, N=737).
- Other ranks had a significantly higher rate of mental disorder at 5.1 per 1,000 strength (95% CI: 4.7-5.4, N=829) than Officers at 2.6 per 1,000 strength (95% CI: 2.1-3.1, N=87).

11. **Tables 2, 3, 4, 5, 6, 8, 9 and 10** contain comparisons of data across the last five published quarters and annual tables based on financial year. 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 quarters, however, have remained broadly the same, suggesting that the revised methodology has not altered the pattern of findings.

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

12. Tables 2, 3, 4, and 5 present the last five quarters and financial year 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 April 2007 – 30 June 2011, financial years, numbers and rates per 1,000 strength.

	All patients seen	Patients assessed with a mental disorder			Patients assessed without a mental disorder	Presenting complaint information not provided ¹
		Number	Rate	95% CI		
2007/08	5,039	3,479	17.5	(16.9 - 18.1)	1,333	227
2008/09	4,437	3,133	15.9	(15.3 - 16.4)	1,303	1
2009/10 ²	5,452	3,813	18.9	(18.3 - 19.5)	1,639	0
2010/11	5,582	3,983	19.9	(19.3 - 20.5)	1,599	0
2011/12 (To date)	1,219	916	4.6	(4.3 - 4.9)	303	0
April - June 2010/11	1,337	940	4.7	(4.4 - 4.9)	397	0
July - Septemehr 2010/11	1,329	942	4.7	(4.4 - 5.0)	387	0
October - December 2010/11	1,379	992	5.0	(4.7 - 5.3)	387	0
January - March 2010/11	1,537	1,109	5.6	(5.3 - 5.9)	428	0
April - June 2011/12	1,219	916	4.6	(4.3 - 4.9)	303	0

1. 228 records provided with no ICD-10 information (see paragraph 34).

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

3. Where 'r' is shown, represents a revision to previously published figures

Table 3: Episodes of care at the MOD's DCMHs by Service, 1 April 2007 – 30 June 2011, financial years, numbers¹ and rates per 1,000 strength.

Date	Service										Not known ²		
	Royal Navy		Royal Marines			Army			RAF				
	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number			
2007/08	445	14.1	(12.8 - 15.4)	83	10.7	(8.4 - 13.1)	2,087	18.2	(17.4 - 19.0)	761	17.1	(15.8 - 18.3)	103
2008/09	415	13.3	(12.0 - 14.6)	65	8.3	(6.3 - 10.3)	1,956	17.1	(16.3 - 17.8)	659	15.1	(13.9 - 16.2)	38
2009/10 ³	404	12.9	(11.7 - 14.2)	93	11.5	(9.2 - 13.9)	2,407	20.4	(19.6 - 21.2)	902	20.3	(19.0 - 21.7)	7
2010/11	396	12.8	(11.6 - 14.1)	65	7.9	(5.9 - 9.8)	2,578	22.0	(21.2 - 22.9)	944	21.5	(20.1 - 22.9)	0
2011/12 (To date)	96	3.2	(2.6 - 3.9)	21	2.5	(1.6 - 3.9)	587	5.0	(4.6 - 5.4)	212	5.0	(4.3 - 5.6)	0
April - June 2010/11	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 - Septemehr 2010/11	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 2010/11	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 2010/11	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
April - June 2011/12	96	3.2	(2.6 - 3.9)	21	2.5	(1.6 - 3.9)	587	5.0	(4.6 - 5.4)	212	5.0	(4.3 - 5.6)	0

1. 228 records have been excluded for lack of ICD-10 information therefore these data represent a minimum (see paragraph 34).

2. 148 records supplied without identifiers (see paragraph 33).

3. April 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 April 2007 – 30 June 2011, financial years, numbers¹ and rates per 1,000 strength.

	Gender						Rank						Not known ²
	Males			Females			Officers			Other Ranks			
	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	
2007/08	2,745	15.2	(14.6 - 15.8)	631	34.8	(32.1 - 37.6)	229	6.8	(5.9 - 7.7)	3,147	19.1	(18.4 - 19.7)	103
2008/09	2,454	13.7	(13.1 - 14.2)	641	35.5	(32.8 - 38.3)	251	7.5	(6.6 - 8.4)	2,844	17.3	(16.7 - 18.0)	38
2009/10 ³	3,027	16.5	(15.9 - 17.1)	779	41.8	(38.9 - 44.8)	362	10.7	(9.6 - 11.8)	3,444	20.5	(19.8 - 21.2)	7
2010/11	3,209	17.7	(17.1 - 18.3)	774	41.6	(38.7 - 44.5)	353	10.5	(9.4 - 11.5)	3,630	21.8	(21.1 - 22.5)	0
2011/12 (To date)	737	4.1	(3.8 - 4.4)	179	9.8	(8.4 - 11.2)	87	2.6	(2.1 - 3.1)	829	5.1	(4.7 - 5.4)	0
April - June 2010/11	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 - Septemehr 2010/11	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 2010/11	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 2010/11	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
April - June 2011/12	737	4.1	(3.8 - 4.4)	179	9.8	(8.4 - 11.2)	87	2.6	(2.1 - 3.1)	829	5.1	(4.7 - 5.4)	0

1. 228 records have been excluded for lack of ICD-10 information therefore these data represent a minimum (see paragraph 34).

2. 148 records supplied without identifiers (see paragraph 33).

3. April 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 deployment¹, 1 April 2007 – 30 June 2011, financial years, numbers² and rates per 1,000 strength.

Date	Deployment - Theatres of operation											Not known ⁴	
	of which												
	Op TELIC and/or Op HERRICK ³			Op TELIC			Op HERRICK ³			Neither			
	Patients assessed with a mental disorder												
	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number
2007/08	1,796	17.2	(16.4 - 18.0)	1,591	17.6	(16.8 - 18.5)	427	13.0	(11.7 - 14.2)	1,580	17.1	(16.3 - 18.0)	103
2008/09	1,776	15.6	(14.9 - 16.4)	1,455	15.7	(14.9 - 16.5)	712	15.1	(14.0 - 16.2)	1,319	15.8	(14.9 - 16.6)	38
2009/10 ⁵	2,320	19.4	(18.6 - 20.2)	1,716	18.7	(17.9 - 19.6)	1,226	19.8	(18.7 - 20.9)	1,486	18.1	(17.2 - 19.0)	7
2010/11	2,564	20.9	(20.1 - 21.7)	1,691	19.4	(18.4 - 20.3)	1,670	21.9	(20.8 - 22.9)	1,419	18.3	(17.4 - 19.3)	0
2011/12 (To date)	560	4.5	(4.1 - 4.9)	374	4.4	(4.0 - 4.9)	401	4.7	(4.3 - 5.2)	356	4.9	(4.4 - 5.4)	0
April - June 2010/11	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 2010/11	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 2010/11	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 2010/11	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
April - June 2011/12	560	4.5	(4.1 - 4.9)	374	4.4	(4.0 - 4.9)	401	4.7	(4.3 - 5.2)	356	4.9	(4.4 - 5.4)	0

1. Deployment to the wider theatre of operation (see paragraph 38).

2. 228 records have been excluded for lack of ICD-10 information therefore 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. 148 records supplied without identifiers (see paragraph 33).

5. Apr 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 April - June 2011/12 decreased significantly compared to the previous quarter January - March 2010/11 at 4.6 per 1,000 strength (95% CI: 4.3-4.9) and 5.6 per 1,000 strength, (95% CI: 5.3-5.9) respectively. However compared to the same quarter a year ago there was no significant difference in the rate of new patients assessed with a mental disorder.

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

- Rates were higher among Army and RAF personnel compared to Royal Navy and Royal Marines personnel. (The exception to this was January-March 2010 when there was no significant difference between Royal Navy and RAF rates).
- 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 was **not statistically significantly higher** 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 (4.5 per 1,000 strength, 95% CI 4.1-4.9, N=560 and to 4.9 per 1,000 strength, 95% CI 4.4-5.4, N=356, respectively).

16. The DCMH attendance rate was **not statistically significantly higher** among those who had deployed to Op HERRICK compared to those who had deployed to Op TELIC, (4.7 per 1,000 strength, 95% CI 4.3-5.2, N=401, and 4.4 per 1,000 strength, 95% CI 4.0-4.9, N=374, respectively).

Initial mental disorder assessment

17. **Table 6** (see page 5) provides details of the types of presenting complaints, by ICD-10 grouping, for the 916 patients seen for a new episode of care during April – June 2011 and assessed with a mental disorder. The table also includes data for the previous four quarters and financial years.

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 2.9 per 1,000 strength (95% CI: 2.6-3.1, N=566) which was 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 (95% CI: 0.2-0.4, N=59). For all major mental health groupings, rates for April – June 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 April 2007 to 30 June 2011, financial years, numbers¹ and rates per 1,000 strength.

Date	ICD-10 description																							
	Psychoactive substance use			<i>of which disorders due to alcohol</i>			Mood disorders			<i>of which depressive episode</i>			Neurotic disorders			<i>of which PTSD</i>			<i>of which adjustment disorders</i>			Other mental disorders		
	Patients assessed with a mental disorder																							
	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
2007/08	385	1.9	(1.7 - 2.1)	355	1.8	(1.6 - 2.0)	811	4.1	(3.8 - 4.4)	679	3.4	(3.2 - 3.7)	2,045	10.3	(9.8 - 10.7)	174	0.9	(0.7 - 1.0)	1,232	6.2	(5.9 - 6.5)	238	1.2	(1.0 - 1.4)
2008/09	339	1.7	(1.5 - 1.9)	322	1.6	(1.5 - 1.8)	701	3.6	(3.3 - 3.8)	606	3.1	(2.8 - 3.3)	1,850	9.4	(8.9 - 9.8)	142	0.7	(0.6 - 0.8)	1,097	5.6	(5.2 - 5.9)	243	1.2	(1.1 - 1.4)
2009/10 ²	315	1.6	(1.4 - 1.7)	298	1.5	(1.3 - 1.6)	914	4.5	(4.2 - 4.8)	834	4.1	(3.9 - 4.4)	2,295	11.4	(10.9 - 11.8)	195	1.0	(0.8 - 1.1)	1,422	7.0	(6.7 - 7.4)	289	1.4	(1.3 - 1.6)
2010/11	327	1.6	(1.5 - 1.8)	312	1.6	(1.4 - 1.7)	896	4.5	(4.2 - 4.8)	836	4.2	(3.9 - 4.5)	2,456	12.3	(11.8 - 12.8)	253	1.3	(1.1 - 1.4)	1,599	8.0	(7.6 - 8.4)	304	1.5	(1.3 - 1.7)
2011/12 (To date)	56	0.3	(0.2 - 0.4)	54	0.3	(0.2 - 0.3)	217	1.1	(0.9 - 1.2)	209	1.1	(0.9 - 1.2)	566	2.9	(2.6 - 3.1)	59	0.3	(0.2 - 0.4)	394	2.0	(1.8 - 2.2)	77	0.4	(0.3 - 0.5)
April - June 2010/11	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 - Septemebr 2010/11	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 2010/11	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 2010/11	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)
April - June 2011/12	56	0.3	(0.2 - 0.4)	54	0.3	(0.2 - 0.3)	217	1.1	(0.9 - 1.2)	209	1.1	(0.9 - 1.2)	566	2.9	(2.6 - 3.1)	59	0.3	(0.2 - 0.4)	394	2.0	(1.8 - 2.2)	77	0.4	(0.3 - 0.5)

1. 228 records have been excluded for lack of ICD-10 information therefore these data represent a minimum (see paragraph 34).

2. Apr 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 deployment¹ and ICD-10 grouping, 1 April – 30 June 2011, numbers and rates ratio².

ICD-10 description	All patients seen	Deployment - Theatres of operation									Neither
		Op TELIC and/or Op HERRICK ³			of which						
		Patients seen	Rate ratio	95% CI	Op TELIC			Op HERRICK ³			
Patients seen	Rate ratio	95% CI	Patients seen	Rate ratio	95% CI	Patients seen	Rate ratio	95% CI	Patients seen		
All patients seen	1,219	709			465			505			510
All patients assessed with a mental disorder	916	560	0.9	(0.8 - 1.1)	374	0.9	(0.8 - 1.1)	401	1.0	(0.8 - 1.1)	356
Psychoactive substance use	56	34	0.9	(0.5 - 1.6)	25	1.0	(0.6 - 1.7)	26	1.0	(0.6 - 1.8)	22
of which disorders due to alcohol	54	34	1.0	(0.6 - 1.7)	25	1.1	(0.6 - 2.0)	26	1.1	(0.6 - 2.0)	20
Mood disorders	217	113	0.6	(0.5 - 0.8)	76	0.6	(0.5 - 0.9)	73	0.6	(0.4 - 0.8)	104
of which Depressive episode	209	111	0.7	(0.5 - 0.9)	76	0.7	(0.5 - 0.9)	71	0.6	(0.5 - 0.8)	98
Neurotic disorders	566	364	1.1	(0.9 - 1.3)	237	1.0	(0.8 - 1.2)	277	1.2	(1.0 - 1.4)	202
of which PTSD	59	51	3.7	(1.8 - 7.9)	32	3.5	(1.6 - 7.5)	44	4.7	(2.2 - 10.1)	8
of which Adjustment disorders	394	249	1.0	(0.8 - 1.2)	154	0.9	(0.7 - 1.2)	191	1.1	(0.9 - 1.4)	145
Other mental disorders	77	49	1.0	(0.6 - 1.6)	36	1.1	(0.7 - 1.8)	25	0.8	(0.4 - 1.3)	28
No mental disorder	303	149			91			104			154

1. Deployment to the wider theatre of operation (see paragraph 38).

2. 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).

3. Does not include personnel deployed to Afghanistan during the period January 2003 to September 2005 (see paragraph 39).

20. **Table 7** shows that during April - June 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 were lower in those who had deployed to Op TELIC and/or Op HERRICK (rate ratio 0.6). This represents a decreased risk of 40%.
- Rates of PTSD were higher in those who had deployed to Op HERRICK, (rate ratio of 4.7, 95% CI: 2.2-10.1) which represents an increased risk of 370%. For those who had deployed to Op TELIC there was an increased risk of PTSD of 250% (rate ratio 3.5, 95% CI: 1.6-7.5).

Admissions to the MOD's In-patient Contractor

21. During the three-month period April - June 2011, there were 65 admissions of Service personnel to the MOD's in-patient contractor^c which corresponds to a rate of 0.3 per 1,000 strength.

22. Of the 65 admissions during April – June 2011, 45 had been seen at a DCMH between January 2007 and the date of their admission. The remaining 20 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 April 2007 and June 2009 and all admissions to the MOD's in-patient care contractor between July 2009 and June 2011.

Table 8: Admissions to the MOD's in-patient contractor by Service, 1 April 2007 – 30 June 2011, financial years, numbers and rates per 1,000 strength.

^c UK In-patient data only provided quarterly by South Staffordshire and Shropshire Healthcare NHS Foundation Trust.

Date	All admissions			Service								
				Naval Service ¹			Army			RAF		
	Patients assessed with a mental disorder											
Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	
2007/08	218	1.1	(1.0 - 1.2)	37	0.9	(0.6 - 1.2)	139	1.2	(1.0 - 1.4)	42	0.9	(0.7 - 1.2)
2008/09	227	1.2	(1.0 - 1.3)	47	1.2	(0.9 - 1.5)	137	1.2	(1.0 - 1.4)	43	1.0	(0.7 - 1.3)
2009/10 ²	247	1.2	(1.1 - 1.4)	52	1.3	(1.0 - 1.7)	148	1.3	(1.1 - 1.5)	47	1.1	(0.8 - 1.4)
2010/11	216	1.1	(0.9 - 1.2)	~	0.7	(0.5 - 1.0)	161	1.4	(1.2 - 1.6)	~	0.6	(0.4 - 0.9)
2011/12 (To date)	65	0.3	(0.2 - 0.4)	8	0.3	(0.1 - 0.5)	52	0.4	(0.3 - 0.6)	5	0.1	(0.0 - 0.3)
April - June 2010/11	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 - Septemebr 2010/11	53	0.3	(0.2 - 0.3)	7	0.2	(0.1 - 0.4)	37	0.3	(0.2 - 0.4)	9	0.2	(0.1 - 0.4)
October - December 2010/11	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 2010/11	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)
April - June 2011/12	65	0.3	(0.2 - 0.4)	8	0.3	(0.1 - 0.5)	52	0.4	(0.3 - 0.6)	5	0.1	(0.0 - 0.3)

1. Royal Navy and Royal Marines combined to protect patient confidentiality
2. Apr 2007- Jun 2009 new admissions, 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).
5. Where 'r' is shown, represents a revision to previously published figures

Table 9: Admissions to the MOD's in-patient contractor by gender and rank, 1 April 2007 – 30 June 2011, financial years, numbers and rates per 1,000 strength.

Date	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	
2007/08	177	1.0	(0.8 - 1.1)	41	2.3	(1.6 - 3.0)	17	0.5	(0.3 - 0.8)	201	1.2	(1.0 - 1.4)
2008/09	188	1.0	(0.9 - 1.2)	39	2.2	(1.5 - 2.8)	19	0.6	(0.3 - 0.9)	208	1.3	(1.1 - 1.4)
2009/10 ¹	206	1.1	(1.0 - 1.3)	41	2.2	(1.5 - 2.9)	22	0.7	(0.4 - 1.0)	225	1.3	(1.2 - 1.5)
2010/11	198	1.1	(0.9 - 1.2)	18	1.0	(0.6 - 1.5)	14	0.4	(0.2 - 0.7)	202	1.2	(1.0 - 1.4)
2011/12 (To date)	58	0.3	(0.2 - 0.4)	7	0.4	(0.2 - 0.8)	8	0.2	(0.1 - 0.5)	57	0.3	(0.3 - 0.4)
April - June 2010/11	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 - Septemebr 2010/11	~	0.3	r(0.2 - 0.4)	~	0.2	(0.0 - 0.5)	~	0.1	(0.0 - 0.3)	~	0.3	(0.2 - 0.4)
October - December 2010/11	~	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 2010/11	~	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)
April - June 2011/12	58	0.3	(0.2 - 0.4)	7	0.4	(0.2 - 0.8)	8	0.2	(0.1 - 0.5)	57	0.3	(0.3 - 0.4)

1. Apr 2007- Jun 2009 new admissions, 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).
4. Where 'r' is shown, represents a revision to previously published figures

Table 10: Admissions to the MOD's in-patient contractor by deployment¹, 1 April 2007 – 30 June 2011, financial years, numbers and rates⁴ per 1,000 strength.

Date	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												
Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI	
2007/08	101	1.0	(0.8 - 1.2)	89	1.0	(0.8 - 1.2)	29	0.9	(0.6 - 1.3)	117	1.3	(1.0 - 1.5)
2008/09	116	1.0	(0.8 - 1.2)	95	1.0	(0.8 - 1.2)	43	0.9	(0.6 - 1.2)	111	1.3	(1.1 - 1.6)
2009/10 ³	139	1.2	(1.0 - 1.4)	115	1.3	(1.0 - 1.5)	64	1.0	(0.8 - 1.3)	115	1.4	(1.1 - 1.7)
2010/11	115	0.9	(0.8 - 1.1)	83	1.0	(0.7 - 1.2)	67	0.9	(0.7 - 1.1)	101	1.3	(1.1 - 1.6)
2011/12 (To date)	36	0.3	(0.2 - 0.4)	25	0.3	(0.2 - 0.4)	28	0.3	(0.2 - 0.5)	29	0.4	(0.3 - 0.6)
April - June 2010/11	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 - Septemebr 2010/11	30	0.2	(0.2 - 0.3)	20	0.2	(0.1 - 0.4)	19	0.3	(0.2 - 0.4)	23	0.3	(0.2 - 0.4)
October - December 2010/11	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 2010/11	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)
April - June 2011/12	36	0.3	(0.2 - 0.4)	25	0.3	(0.2 - 0.4)	28	0.3	(0.2 - 0.5)	29	0.4	(0.3 - 0.6)

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. Apr 2007- Jun 2009 new admissions, July 2009 to date all admissions (paragraph 23).
4. The rates and confidence intervals have been rounded to 1 decimal place (paragraph 36).
5. Where 'r' is shown, represents a revision to previously published figures

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

- b. There was no significant difference in the admission rate between males and females.
- c. There was no significant difference in the admission rate between officers and ranks.
- d. There was no significant difference in the admission rate between those previously deployed on Op TELIC and/or Op HERRICK and those who had not been previously 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^d.

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 July 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

^d 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](http://www.kcl.ac.uk/kcmhr/information/publications/publications.html).

disorders used by the World Health Organisation's International Statistical Classification of Diseases and Health-Related Disorders 10th edition (ICD-10).

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. DASA received 148 records for personnel assessed with a mental disorder for the period April 2007 – June 2009, but with no demographic information provided. These cases are reported as 'not known' (Tables 3, 4 and 5). In 2009 DCMH staff agreed to collect basic demographic information (Service, gender, rank, age and deployment) 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. Prior to 2008, DCMH staff were not required to complete ICD-10 information in their monthly returns. DASA received 227 records that did not have information regarding a specific mental disorder for the financial year 2007/2008, plus one additional record for financial year 2008/2009. We were therefore unable to ascertain whether these individuals had a mental disorder or not. These records have been included in tables 1 and 2 in the 'all patients seen' column however they have been excluded from tables 3, 4, 5 and 6 which only present 'patients assessed with a mental disorder'. From 2008 onwards, DCMH staff were asked to return records with complete 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 April 2011 and July 2011 divided by four for Q1 2011/2012). 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 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. The rates presented for financial years, 2007/08, 2008/09 and 2009/10 were calculated using updated strength figures^e between 1 April 2007 and 1 April 2009 inclusive. Strength figures after 1 April 2009 are provisional and subject to change due to ongoing validation of the Joint Personnel Administrative system (JPA).

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^f 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.**

^e UK Defence Statistics 2011, the annual statistical compendium published by the Ministry of Defence, 28th September 2011.

^f 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.

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).

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.

REFERENCES

- i. Hyams KC, Wignall FS, Roswell R. War syndromes and their evaluation: from the U.S. Civil War to the Persian Gulf War. *Annals of Internal Medicine*; **125**: 398-405.
- ii. Jones E, Hodgins-Vermaas R, McCartney H et al. Post-combat syndromes from the Boer War to the Gulf: a cluster analysis of their nature and attribution. *British Medical Journal* 2002; **324**: 321-324.
- iii. Hoge CW, Castro CA, Messer SC et al. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine* 2004; **351**: 13-22.
- iv. Hotopf M, Fear NT, Browne T et al. The health of UK military personnel who deployed to the 2003 Iraq war: a cohort study. *The Lancet*; **367**: 1731-1741.
- v. Pearson ES, Hartley HO, 1954. *Biometrika tables for statisticians volume I*. Cambridge: Cambridge University Press.