Background Quality Report

Official Statistic: Mental Health in the UK Armed Forces

1 Contact

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2 Introduction and Statistical Presentation

- Defence Statistics have produced a series of publications detailing the mental health of the UK Armed Forces which can be found at the gov.uk MOD Statistics page:
  - UK Armed Forces Mental Health Annual Summary & Trends over time
  - The Quarterly UK Armed Forces Mental Health report
  - The UK Armed Forces Mental Health mid-year report

- The UK Armed Forces Mental Health Annual Summary & Trends over time is an annual publication that provides information on mental disorders assessed at MOD Specialist Mental Health Services from 2007/08. Since June 2020 the publication also captures those seen for a mental health related reason by their GP in primary care to present an understanding of all mental health in the UK Armed Forces.

- The Quarterly UK Armed Forces Mental Health report is a quarterly publication that provides information on mental disorders assessed at MOD Specialist Mental Health Services from April 2007. The production of this publication has ceased. The last publication was published on 7 April 2016 and covers data up to 31 December 2015.

- The UK Armed Forces Mental Health mid-year report is an annual publication that provides quarterly and mid-year updates on mental disorders assessed at MOD Specialist Mental Health Services. The production of this publication has ceased. The last publication was published on 1 December 2016 and covers data up to 30 September 2016.

Mental Health care in the MOD

- Assessment and care-management within the Armed Forces for personnel experiencing mental health problems is available at three levels:
  a) In Primary Health Care (PHC), by the patient's own Medical Officer (MO) or GP.
  b) In the community through specialists mental health clinicians in military Departments of Community Mental Health (DCMH).
  c) In hospitals, either the NHS or the contracted In-Patient Service Provider (ISP).

- MOD Specialist Mental Health Services include levels b) and c) above.

- The level of care a patient requires is determined by a number of factors, including the severity of symptoms and the degree of risk posed by the patient's current condition.

Typically low risk patients will be treated in primary care, whereas higher risk patients with more complex needs will be treated in specialist care.

- In September 2018 a change to the management of low risk patients with uncomplicated common mental health disorders was introduced in the MOD. These patients are offered self-help and psychological interventions in primary care and may therefore be successfully treated without need for referral to MOD Specialist Mental Health Services.

- DCMH are specialised psychiatric services based on community mental health teams closely located with primary care services at sites in the UK and abroad. All UK based and aero-medically evacuated Service personnel based overseas requiring in-patient admission are treated by one of eight NHS trusts in the UK which are part of a consortium headed by the SSSFT NHS Foundation trust; UK based Service personnel from British Forces Germany are treated at Gilead IV hospital, Bielefield under a contract with Guys and St Thomas Hospital in the UK up until April 2013 and from this date the Soldiers, Sailors, Airmen and Families Association (SSAFA) through the Limited Liability Partnership. When presenting in-patient data, the data include returns from both contract providers.

3 Statistical Processing

3.1 Source Data

- Data for UK Armed Forces personnel seen in a military healthcare setting for a mental health related reason is taken from Defence Medical Information Capability Program (DMICP). Mental health related codes included in the analysis are detailed later in this document.

- DCMH data is taken from the following sources:
  a) Between 01 January 2007 and 30 June 2014, the report captures data provided by DCMHs to Defence Statistics in monthly returns.
  b) For the period 01 April 2012 to 30 June 2014, new episodes of care data was also sourced from the electronic patient record held in DMICP in addition to those provided by DCMH in monthly returns.
  c) Since 01 July 2014, DMICP was the single source of DCMH new episodes of care data.

- In April 2012, system developments enabled DCMH to begin recording information of mental health episodes of care in the integrated health record in DMICP; capturing the information in the format required to produce this report through a set of templates. These templates were designed to capture information in the same way as existing Defence Statistics database, with the ultimate aim of reducing duplicate data entry by clinicians.

- Since January 2007, SSSFT and SSAFA have submitted in-patient data in monthly returns to Defence Statistics.

- The Joint Personnel Administration (JPA) system is used to gather patients demographic information, including; service, gender, rank, date of birth, regular/reserve status, ethnicity and deployment.

- Defence Statistics maintains a database of individual deployment records from November 2001.
  a) Data prior to April 2007 was derived from the single services Operation Location tracking (OPLOC) systems[1] and data since April 2007 is obtained from JPA. The data covers deployments on Operation TELIC (Iraq) (2003-2011), Operation VERITAS (Afghanistan) (2001-2006) and Operation HERRICK (Afghanistan) (2001 - late-2014).
  b) 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.

Data Coverage

- Mental health related DMICP codes used to identify UK Armed Forces personnel seen in any military healthcare setting for a mental health related reason are (these diagnosis codes have been agreed by Defence Statistics and a group of primary care and mental health clinicians working in MOD. They include signs/symptoms of mental health as well as ICD-10 recognised mental disorders):
  Eu432, Eu32, Eu4, Eu431, E2003, E29, Eu32z-1, Eu3y, E2B, E200z, Eu33, Eu101, E2002, E2001-1, Eu900-1, Eu6, E2900-1, Eu321, Eu412, E204-1, E1137, Eu32z, Eu840-1, Eu31, Eu102, E203, Eu3, Eu403, Eu42, Eu50, E292, E29y1, E140-2, E23, Eu41z-1, E28z-2, Eu845, Eu603, Eu341, E2001, E274, E21, E2004, Eu630-1, Eu320, E29z, Eu41z, Eu64, Eu2, E202-1, Eu0, E112, Eu401, Eu411, E2F3-1, Eu43, Eu322, Eu32z-2, E2F3, Eu1, E2, E2005, E1122, E2020, E2C31, Eu2z-1, Eu410, E202-2, E21y2, E271, Eu502, Eu40z-1, Eu340, E2028, Eu50z, E13z-1, E2930, Eu402, Eu400-2, Eu326, Eu44, Eu452-1, Eu41, Eu300, Eu9y7, E202C, Eu44z, E21z, Eu603-2, Eu633, Eu84z-1, Eu331, E113, Eu313, Eu605-3, E20y0, E2723, E24, E1123, Eu324, Eu31y, E203z, Eu23, Eu64z, Eu23z, Eu30, E20, E115, Eu32-3, Eu330, Eu323-1, Eu323, E2F, Eu332, Eu310, E2F3-2, Eu316, E2024, E240, Eu314, E1135, Eu232, E23z, E2E01, E02z, Eu62z, Eu413, Eu402-4, Eu400, Eu10, Eu45, E294, E291, E202z, Eu452, E2021, Eu451, E10z, E2F2, Eu053, Eu503, E2012, Eu501, Eu620, Eu61, Eu531-1, E135, E252, Eu445, E292z, E2F00, Eu602-2, Eu42z, E2B1, Eu3y0, Eu19, Eu30z-1, E1125, Eu21, E1132, E2141, Eu95, E217, Eu332-2, E1151, E1153, E201A, E117, Eu40, E2027, E2750, Eu2y, Eu454-4, Eu453, E13y1, Eu31z, E2751, E13z, Eu31y-1, Eu45z, Eu454, Eu25, E114, Eu450, Eu402-2, E1121, Eu333-5, E1124, E117z, E11y2, E11z0, E11-1, Eu200, Eu440, Eu25z, E1131, E10, Eu220, E113z, Eu40z, E272z, Eu512, Eu630, E207, E215, Eu325, E212, E2120, E241z, Eu605, Eu510, Eu64y, Eu952, Eu95z, E2016, E241-3, Eu500, E1130, E012, Eu816, E112z, E1104, Eu6z, E012-1, Eu400-1, Eu6y3, Eu6y, Eu640, Eu3y0-1, E1114, E01z, Eu63z, E01y, Eu33z, Eu65-1, Eu333, E1120, E1133, Eu32A, E1142, E1145, Eu32-2, Eu32-1, E1146, E115-1, Eu95y, E1111, E1150, Eu315, Eu90z, E1141, E0110, Eu328, E011z, Eu327, E1134, Eu65z, Eu323-4, Eu90, Eu322-2, Eu322-1, E1140, E011, E1103, E03y3, Eu60, Eu600, E1, Eu601, Eu44y, Eu447, Eu446, E1000, Eu602, Eu444-2, Eu443, E03y0, E0z, Eu53z, Eu461, Eu460, E2F1, Eu45z-1,

[1] 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.

Eu45y, Eu502-1, Eu50y, E03y2, Eu51, Eu452-4, Eu51z, Eu441, E03y, Eu604-1, E11, E0210, E11-2, E11-3, Eu631, E110, Eu40y, E1100, E1101, Eu632, E02, Eu63, Eu41y, Eu621, E100, E02yz, Eu606, E103, Eu607, Eu60y-4, Eu60z, Eu42y, Eu62, E1030, E104, Eu63y, Eu312, E29y3, E25y, E2594, E254-2, E252z, E2522, E2520, E24z, E24A, E249, E248z, E2470, E2462, E244, E243z, E2432, E2431, E2430, E2015-1, E2014, E29y2, E13y0, E29y, E293z, E2932, E2931, E290z, E1y, E290, E1z, E2011, E275z, E275y, E275, E274z, E274y, E2740, E243-3, E242z, E2421, E222, E22, E21yz, E201z-1, E21y1, E21y0, E21y, E2152, E2151, E2140, E210, E201z, E202, E20y, E2021-99, E2022, E2023, E225, E225z, E2420, E242, E241-6, E241, E241-4, E2026, E241-1, E240z, E2400, E2015, E240-3, E240-2, E240-1, E2018, E22z, E22yz, E22y0, E01, E29y5, E1152, E1166, Eu22y-1, Eu220-1, Eu22, Eu21-8, Eu21-5, Eu206, Eu204, Eu202, Eu20, E116z, Eu18, Eu155, Eu15, Eu14z, Eu132, Eu122, Eu230, Eu231, Eu31-1, Eu30z, Eu302, Eu301, E1154, E115z, Eu30-1, E116, Eu2z, E1161, Eu2y-1, Eu25y, E1162, Eu23y, Eu233, Eu232-1, E2460, Eu121, Eu12, Eu11z, Eu022, Eu020, Eu013, Eu01, E2F30, E11y, E121, E2F02, E2F0, E12y, E2Ez, E2E00, E2C33, E2C32, E12z, E13, E2B-99, Eu02y, Eu02z-1, Eu112, Eu11, Eu10z, Eu10y, Eu107, Eu105, Eu105-4, E1171, E1175, Eu060, Eu056, Eu055, Eu054, Eu052, Eu050, Eu04y-1, Eu02z, E2B-98, E200, E2273-1, E23-2, E26y0, E2924, E2741-1, E250-4, E202A, E28, E292y, E2900, E2000, E227-1, E2C01, E2A2, E2F3z, Eu32z-4, Eu455, E25z, E2273, E, E250z, E2276, E112-4, E28z, E2748, E2749, E2741, E250, E270, E2746, Eu334, Eu411-2, E250-1, Eu32y, E2747, Eu3z, Eu411-3, E2Fz, E2F4, E112-1, E2830, E204, Eu317, E284, E2F5-1, Eu85, Eu412-1, E272, Eu800-2, E2F4-2, E020, E2Fy, E2C-1, Eu800-1, Eu522-2, Eu913, E2016-2, E1126, E2831, Eu515, E227, Eu520-3, Eu112-1, E250-2, E030, E24-1, E23-1, E113-1, E2271, Eu100, E2742, Eu420, Eu840, Eu430, E2275, E205-1, Eu340-3, Eu430-4, Eu410-1, Eu608, Eu32z-3, E2E0, Eu522-3, Eu81z-1, E270-1, Eu46z, Eu520, E26z, Eu445-1, E2C00, E2031, Eu930, E274D-1, E28z-3, Eu432-2, Eu410-2, E2502, Eu34, E27z4, Eu800, E2Dy, E2651, Eu3yy, E2720, Eu220-5, E2Dz-2, Eu411-1, Eu523, E2D-1, Eu341-3, Eu524, Eu514, E2752, E2920, E22y4, Eu84z, E205, Eu953, Eu932, E130-1, E118, Eu910, E01y0, Eu940-1, Eu94z, Eu81z-2, E2731, Eu3y1-1, E1176, E1136, E2E-1, E2722, Eu431-1, E270-2, Eu82-3, E023, E022, Eu80z, E2029, Eu9y5, Eu422, E2743-1, E2D1-1, Eu42-2, E112-2, E2758, Eu901, E12, Eu513, E20z, Eu942, E2Dyz, Eu52, E2112, Eu846, Eu401-2, E2D-2, Eu421, Eu460-1, Eu9, Eu91z-1, Eu33-3, E227z-1, Eu100-1, E2A2-1, E2C10-1, Eu33-1, Eu104-1, Euz-1, Eu642, E2500, E010, Eu113-1, E030z, Eu62y-1, Eu32y-1, Eu110 Eu33-5, Eu32B, E2610, Eu33y, Eu057, E264, Eu530-1, E231, E2312, Eu220-2, Eu54, E2C12, E2613, Eu223, Eu43z, E25, Eu932-1, Eu452-3, Eu452-2, Eu93y, Eu940, Eu430-5, Eu93z, Eu43y, Eu50y-1, Eu430-3, Eu44-2, Eu430-1, Eu933, Eu44y-1, Eu430-2, Eu433, Eu42-1, Eu41y-1, Eu9y6, Eu33z-1, Eu9yy, Eu333-4, Eu333-3, Eu333-1, Eu332-1, Eu44-1, Euz, Eu33-2, Eu26, Eu24-3, Eu24, Eu23z-2, Eu340-2, Eu341-1, Eu941, Eu950, Eu40z-2, Eu402-3, Eu951, Eu9y0, Eu9y1, Eu3y2, E2780, Eu3y1, Eu34z, Eu34y, Eu341-4, Eu9y2, Eu9y3, Eu9y4, Eu23z-1, Eu453-2, Eu522, Eu527, Eu528, Eu52y, Eu52z, Eu53, Eu530, Eu530-2, Eu55, Eu55-3, Eu55-4, Eu525-1, Eu81, Eu522-1, Eu82-1, Eu81z, Eu818, Eu815, Eu814, Eu810-3, Eu810, Eu810-2, Eu523-2, Eu55-5, Eu603-1, Eu80, Eu80y-1, Eu80B, Eu808, Eu806, Eu800-3, Eu805, Eu803, Eu802, Eu801-1, Eu701, Eu6y2, Eu603-3, Eu605-2, Eu607-1, Eu607-2, Eu80y, Eu60y-3, Eu60y, Eu64z-1, Eu660, Eu662, Eu801, Eu521-1, Eu453-4, Eu912-5, Eu912-4, Eu912, Eu911, Eu45y-2, Eu91, Eu45y-3, Eu45y-4, Eu45y-5, Eu46, Eu455-1, Eu454-3, Eu453-7, Eu92z, Eu453-8, Eu453-22, Eu92y-2, Eu453-24, Eu453-12, Eu91z, Eu91z-2, Eu453-14, Eu902, Eu901-1, Eu86, Eu51z-1, Eu84y, Eu842, Eu841, Eu840-2, Eu520-2, Eu84, Eu82, Eu931, Eu515-1, Eu8y, Eu46y-3, Eu46y, Eu46y-6, Eu900, Eu46z-1, Eu5, Eu504, Eu504-1, Eu505-1, Eu505, Eu82-2, E216, E230, E2301, E2302, E230z, E2310, E2311, E2313, E2401, E250-3, E250-99, E2501, E2503, E22y,

E227z, E216-3, E21y4, E21y5, E21y7-1, E21y7, E21yz-1, E2200, E2201, E224-1, E2270, E2274, E2277, E251, E2511, E251z, E2614, E2615, E2620, E2622, E2630, E264-1, E2640, E2642, E2643-1, E2644, E2645, E264z, E2611, E261, E253-2, E2552, E256, E2560, E2562, E2570, E259, E2590, E25y-2, E25y-3, E25yz, E26, E265, E00-1, E107, E1070, E110-1, E1116, E112-3, E11z1, E11z2, E120, E130, E131, E132, E133, E1033, E031z, E010-2, E010-1, E013, E014-1, E014, E015, E030-2, E0300, E0304, E031-1, E0310, E0312, E140-3, E140, E1400, E21-1, E211, E2110, E2111, E2113, E211z, E2121, E213-1, E213, E213-2, E214, E214z, E20z-1, E20y2, E14y0, E14yz, E200-99, E201, E2016-1, E201C, E202B, E202D, E202E, E202z-1, E204-99, E206, E216-1, E2Cz-99, E2D22-1, E2D2z-1, E2D3, E2D30, E2D3z, E2Dy0, E2Dz, E2E, E2E0z, E2F01-1, E2F31, E2F32, E2D22, E2D20-1, E2Cz, E2Cz0, E2Czz, E2D-99, E2D, E2D0, E2D01, E2D0z, E2D1, E2D1-2, E2D2-1, E2D20, E2F4-1, E2F5, E2z, Eu108, Eu112-2, Eu113, Eu122-1, Eu130, Eu132-1, Eu133, Eu142-1, Eu15y, Eu160, Eu192-1, Eu202-1, Eu103, Eu102-1, E3, E30-1, E31z, Eu, Eu04-5, Eu05z-1, Eu05z-2, Eu06, Eu060-2, Eu062-2, Eu062, Eu06z, Eu202-3, E2652, E2751-1, E2754, E2757-1, E2757, E276, E2760, E2761, E276z, E277, E2771, E278z, E27z0, E274D, E2653, E26y, E27, E273, E2732, E274-1, E274-2, E2743, E2744, E27z2, E27z3, E28-1, E2Az, E2B0, E2C, E2C0, E2C0z, E2C11, E2C2, E2C3, E2C30, E2C34, E2C4, E2C4z, E2A3-1, E2A2-2, E280, E281, E283, E283z, E28z-1, E2921, E2923, E2923-1, E29yz, E2A0, E2A11, E2A12, E2Cy, 1BT-1, 1B1L, 1B1B, 13JM-3, 1B1Q, 13JM0, 13HT1, Fy0, 1B1J-1, 13Hc, R00z8, R007z-4, 1BD1, ZV40-1, 13H41, 13M, 13HT1-1, TK-5, 1B1T, EMISNQTR1, 13H4-2, EMISCDI21, ZV40-3, R00zW, 1BE, EMISNQDI90, 1BT-2, 1B17-2, PCS15089191, ESCTAB3, PCS15089121, PCS15089691.

- Mental health related DMICP codes are used to identify UK Armed Forces personnel seen in any military healthcare setting for a mental health related reason. These codes are recorded in personnel's medical records by a primary care clinician and/or a specialist mental health clinician at a MOD DCMH, and will include continuation of mental health care as well as new episodes.

- The analysis includes all those, Regular and Reservist, with a mental health related diagnosis code recorded in DMICP.

- The MOD Specialist Mental Health Services data of this report include regular UK Armed Forces personnel, Ghurkhas, Military Provost Guard Staff and all currently serving Reserve personnel who have previously deployed since 1 January 2003 as all of these individuals are eligible for assessment at a DCMH.

- While mobilised, Reservists are treated exactly the same as Regulars. Once demobilised reserves are entitled to care under the Veterans and Reserves Mental Health Programme (VRMHP). The VRMHP is open to any current or former member of the UK Volunteer and Regular Reserves who has been demobilised since 1 January 2003 following an overseas operational deployment as a Reservist, and who believes that the deployment may have adversely affected their mental health. The VRMHP also provides mental health assessments by military specialists for veterans who have served since 1982. These reports present data for currently serving Reservists only. Under the VRMHP, MOD liaise with the individual's GP and offer a mental health assessment at the Reserves Training and Mobilisation Centre, which since April 2016 has been located in Colchester. If assessed as having a combat-related mental health condition, MOD

then offers out-patient treatment via one of the MOD's DCMHs. If more acute cases present, the DMS will assist with access to NHS in-patient treatment.

3.2 Data collection methods

- UK Armed Forces personnel seen in a military healthcare setting for a mental health related reason are only included in the analysis if the mental health related diagnosis read code was recorded in DMICP since they were serving in the UK Armed Forces. JPA was used to determine when an individual started serving. Initial analysis found some codes had been recorded as past medical history before the person started serving.

- Due to the current difficulties within DMICP to identify care pathways and distinguish between a new episode of mental health or ongoing mental health care accurately presenting whether mental health care has been delivered solely in primary care or combined with specialist care at a MOD DCMH cannot be done. However, crude exploratory analysis has been carried out and suggests that lower risk, uncomplicated mental health disorders were more likely to be treated solely in primary care. Whereas more complex and enduring conditions were more likely to require specialist mental health care.

- Since July 2014 these releases report on the new episodes of care at a DCMH as recorded in DMICP. Using DMICP enables a more robust and appropriate data source to underpin the reporting of incidence of mental health in the Armed Forces. Previous releases have used different methodology:
  a) Prior to 2009/10, only an individual's first attendance at a DCMH were included in the data submitted by DCMHs to Defence Statistics.
  b) Since 2009/10, the report captures all new episodes of care provided by DCMH to Defence Statistics in monthly returns.
  c) Since 2012/13, the report captures all new episodes of care recorded in DMICP in addition to monthly submissions provided by DCMH to Defence Statistics.
  d) Since 01 July 2014, DMICP was the single source of DCMH new episodes of care data.

- Improvements in robustness and integrity of the data have only been possible since DCMH began recording new episodes of care in mental health templates within DMICP. The inclusion of new episodes of care from DMICP in 2012/13 has resulted in an increase of 21% compared to the number previously published for 2012/13 which was only based on the DCMH monthly returns.

- Since July 2015, the series of publications detailing mental health in the UK Armed Forces provides figures for the number of UK Armed Forces personnel assessed at a MOD Specialist Mental Health Services in addition to the number of new episodes of care. The number of episodes of care may be larger than the number of people assessed with a disorder during a time period for the following reasons:
  a) Personnel may be discharged from an episode of care and subsequently return for separate treatment for a new episode of care.
  b) An individual who receives an in-patient admission will be subsequently discharged to the care of a DCMH. Both the admission and the DCMH attendance for the individual will be counted as two episodes of care.

c) As with any recording system, there is potential for clinician error when completing the DMICP templates and new episodes of care can be recorded in error by clinician's seeing a patient for a review during an existing care episode.
d) It is not possible from the pseudo-anonymised data to quantify the effect of these reasons on the data presented in the report.

- DCMH staff record the initial mental disorder 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). The following ICD 10 Chapters have been included in this report:
  a) **F10 - F19** Mental and behavioural disorders due to psychoactive substance misuse, including alcohol. A wide variety of disorders that differ in severity (from uncomplicated intoxication and harmful use to obvious psychotic disorders and dementia), but that are all attributable to the use of one or more psychoactive substances (which may or may not have been medically prescribed).
  b) **F30 - F39** Mood affective disorders, including depressive episodes. Disorders in which the fundamental disturbance is a change in affect or mood to depression (with or without associated anxiety) or to elation. The mood change is usually accompanied by a change in the overall level of activity; most of the other symptoms are either secondary to, or easily understood in the context of, the change in mood and activity. Most of these disorders tend to be recurrent and the onset of individual episodes can often be related to stressful events or situations. Includes Manic and Bipolar affective disorders, Depressive and recurrent Depressive episodes and other mood affective disorders.
  c) **F40 - F49** Neurotic Stress related and somatoform disorders, including PTSD and Adjustment disorders. This includes mental disorders characterized by anxiety and avoidance behaviour, with symptoms distressing to the patient, intact reality testing, no violations of gross social norms, and no apparent organic aetiology.
  d) **F00 - F09, F20 - F29 and F50 - F99** are presented as 'Other mental health disorders'. This includes, disorders grouped together on the basis of their having in common a demonstrable etiology in cerebral disease, brain injury, or other insult leading to cerebral dysfunction; schizophrenia, personality disorders, eating disorders, sleep disorders and attention deficit hyperactivity disorder (ADHD).

- A number of patients present to DCMH with symptoms that require the treatment skills of DCMH staff, whilst not necessarily having a specific and identifiable mental disorder. These cases are referred to as "assessed without a mental disorder".

- Diagnosis data presented in Section 2 of the report is that recorded by a MOD DCMH clinician and may differ to that presented in Section 1 recorded by a GP. Diagnosis can change when a patient is seen by a specialist mental health clinician.

- Rates enable comparisons between groups and over time, taking account of the number of personnel in a group (personnel at risk) at a particular point in time. The number of events (ie. mental disorders) is then divided by the number of personnel at risk and multiplied by 1,000 to calculate the rate. Or multiplied by 100 to calculate the percentage.

- The estimate of personnel at risk required for the denominator value is derived:
  a) For the annual report - the estimate was calculated using a thirteen-month average of strengths figures (e.g. the number of personnel on strength at the first of every month between April 2017 and April 2018 divided by thirteen for 2017/18).
  b) For the ceased quarterly report - the estimate were calculated using a four-month average of strengths figures (e.g. the number of personnel on strength at the first of every month between July 2014 and October 2014 divided by four for Q2 2014/15).
  c) The denominator for both publications currently includes all personnel who are entitled to mental health care. There is a known issue with the denominator not including Reservist personnel who are no longer mobilised but under the VRMHP are entitled to receive mental health care if their disorder is as a result of Operational service. Defence Statistics are investigating and quantifying the differences in the denominator data, until it is resolved, the rates and population at risk figures reported should be considered provisional and subject to change as a result. Therefore individual rates for reservists have not been calculated. The data used to determine Regular and Reserve status at the time of the individual's appointment is derived from JPA which is correct at the time of extraction.

- In order to understand if a difference in rates is statistically significant, 95% confidence intervals are used. Statistical significance indicates that a finding is not due to chance. 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.

3.3 Data validation

- The main sources of potential error in the Mental Health statistics are as follows:
  a) As with any recording system, there is potential for clinician error when completing the DMICP templates and new episodes of care can be recorded in error by clinician's seeing a patient for a review during an existing care episode.
  b) There is a known issue with the denominator not including Reservist personnel who are no longer mobilised but under the VRMHP are entitled to receive mental health care if their disorder is as a result of Operational service. Defence Statistics are investigating and quantifying the differences in the denominator data, until it is resolved, the rates and population at risk figures reported should be considered provisional and subject to change as a result. Therefore individual rates for reservists have not been calculated. The data used to determine Regular and Reserve status at the time of the individual's appointment is derived from JPA which is correct at the time of extraction.

3.4 Data compilation

- DMICP data is compiled from the DMICP data warehouse. DMICP comprises an integrated primary Health Record (iHR) used by clinicians to enter and review patient

information and a pseudo-anonymised central data warehouse. Free text entered by clinicians in the patient record does not transfer to the data warehouse. Prior to this data warehouse, medical records were kept locally, at each individual medical centre.

4 Quality Management

4.1 Quality Assurance

- The MOD's quality management process for Official Statistics consists of three elements: (1) Regularly monitoring and assessing quality risk via an annual assessment; (2) Providing a mechanism for reporting and reviewing revisions/corrections to Official Statistics; (3) Ensuring BQRs are publishing alongside reports and are updated regularly.

- The bulk of data processing has now been automated. This will reduce human error which has been the cause of quality incidents in the past.

4.2 Quality Assessment

- The UK Armed Forces Mental Health annual statistics was last assessed in 2021 and was deemed to be of low quality risk.

5 Relevance

5.1 User Needs

Users

- In specific reference to the UK Statistics Authority report, The Use Made of Official Statistics, the two publications are used by:
    a) Government – Policy Making
    b) Government – Policy Monitoring
    c) Supporting Third Sector Activity (lobbying)
    d) Academia – Facilitating Research
    e) Charities – Facilitating research

- Additionally, by the nature of the content within the publications, these statistics play an important role in Accountability (i.e. helping to ensure the MOD's accountability to the British public).

- The key external users include the general public, the media, medical academics and the charitable sector.

- To ensure these statistics meet the needs of users, users are encouraged to provide comments and subscribe to updates by emailing Analysis-Health-PQ-FOI@mod.gov.uk.

- By sitting on a variety of internal steering groups Defence Statistics are well placed to understand the policy needs within the department and to either provide bespoke information or, where appropriate, reassess what is released in routine publications.

- Defence Statistics (Health) maintain a log of all internal and external mental health information requests (i.e. all PQs, internal ad hocs and FOI requests). This log is kept under constant review to identify possible changes to:
    a) The format of publications
    b) The level of detail included that would help meet user needs.

Strengths and weaknesses in relation to user needs

- These publications meet user need as they form the single source of mental health statistics for UK Armed Forces personnel within the Ministry of Defence.

- The principal strength is the presentation of the number of Service personnel who have been seen for a new episode of care at a DCMH or in-patient facility, as reported by clinicians.

- Past publications from 2008 to 2019 do not include information on patients seen only by their GP or Medical Officer, a proportion of mental health issues will have been resolved at these levels without the need for further referral, so the data does not represent the totality of mental health problems in the UK Armed Forces. Since 2020 the report has presented an understanding of the totality of mental health in the UK Armed Forces by capturing those assessed by a GP in primary care as well as MOD Specialist Mental Health Services.

- Due to the difficulties already presented it is currently not possible to accurately calculate those who have been treated solely in primary care for their mental health.

6 Accuracy

6.1 Overall Accuracy

- Efficient methods are adopted to capture the Armed Forces mental health information and considerable validation is undertaken to ensure that the information provided is accurate. Users trust the statistics and Defence Statistics receive numerous requests regarding the information presented.

- DMICP, DMCH monthly returns and in-patient provider monthly returns:
    a) There has been no audit of the clinical accuracy of the DMICP mental health data entered in the patient record and no validation of the patient record with data held in the data warehouse.
    b) Data are extracted from the DS database and DMICP six weeks after the end of the reporting period to allow clinician’s sufficient time to complete episode of care information.
    c) It should be noted Defence Statistics cannot verify demographic information submitted in the monthly DCMH returns in the DS database up to 30 June 2014 (Service, gender, rank, age and deployment) for Service personnel who withheld consent. Without the anonymised unique patient identifier, records for these personnel submitted in the DS database could not be identified in the DMICP record. It is therefore possible that new episodes of care for personnel who withhold consent may be counted twice in this report. The number of personnel who withheld consent between 1 April 2007 and 30 June 2014 is 462. As the data

is held in a pseudo-anonymised format in the DMICP data warehouse, patient consent is not an issue from 1 July 2014.

d) Mental disorder types reported here are the clinician's initial assessment during a patient's first appointment at a DCMH, based on presenting complaints, therefore final diagnosis may differ as some patients do not show full range of symptoms, signs or clinical history during their first appointment. It should also be noted that the clinician's primary diagnosis is reported here, however patients can present with more than one disorder.
e) Prior to 2008, DCMH staff were not required to complete ICD-10 information in their monthly returns. Defence Statistics received 227 records that did not have information regarding a specific mental disorder for the financial year 2007/2008. We were therefore unable to ascertain whether these individuals had a mental disorder or not. These records have been included within the disorder breakdown tables under 'Missing mental disorder information'. From 2008 onwards, DCMH staff was asked to return records with complete ICD-10 information, so this data is present for all later years. Disorder information for patients seen at a MOD in-patient contractor is provided on discharge not on admission; therefore some personnel reported as being admitted may not have ICD-10 information recorded at the point of data extraction. These records are counted under 'missing mental disorder information'.
f) The inclusion of new episodes of care direct from the legal electronic patient record (DMICP) improves the robustness and integrity of the underlying data.
g) The use of the pseudo-anonymised patient identifier enables Defence Statistics to validate data, importantly allowing identification of repeat attendances, therefore improving accuracy and also enabling linkage to deployment records to identify any effect of deployment on mental health in the Armed Forces.
h) As with any new data collection system, there is a training burden; user inexperience with the new mental health templates in DMICP may have affected coverage and accuracy.
i) There is an ongoing technical issue with the pseudo-anonymised patient identifier in DMICP. This only affects patients who leave Service but are still entitled to mental health care. This results in the loss of the ability for Defence Statistics being able to validate the data held on DMICP, therefore the numbers presented are a minimum as these data are excluded from the figures provided.

- Joint Personnel Administration (JPA) system:
  a) Extracts are taken from JPA each month taken six calendar days after the end of the month and the situation as at the first of the month is calculated. This ensures most late-reporting is captured. As a result of improvements in the quality of data sourced from JPA and the monthly data validation processes, all JPA data is considered to be fit for purpose.
  b) There may be instances where not all demographics are captured in JPA for some personnel and therefore demographic information may be missing for a small number of those seen for a mental health related reason. Therefore, the sum of demographics may not always equal overall totals.

- Operation Location (OPLOC):
  a) 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 Operation TELIC, Operation HERRICK or Operation VERITAS prior to their mental health appointment date.

b) 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.

- Veterans and Reserves Mental Health Program data
  a) The data were provided in aggregated form by the VRMHP practice manager and have not been validated by Defence Statistics, or linked to DCMH and/or inpatient data. Please note that Reserve personnel can have a minimum of six weeks between making a call to the program and being assessed, thus the numbers provided for calls made and cases assessed during a year may not be equal.

- Armed Forces Compensation Scheme:
  a) Defence Business Services (DBS) are responsible for ensuring the quality of Compensation and Pension System (CAPS) data supplied to Defence Statistics. The CAPS is a large administrative database and is subject to the data quality issues of any large administrative system with data collated by a large number of staff for operational delivery purposes.
  b) The main sources of potential error in the AFCS statistics are as follows:
     - Incomplete data extracts from the DBS
     - Data processing errors resulting in incorrect data outputs.
     - Manual error during production of report tables, graphs and commentary.

- To ensure that potential errors are identified and resolved, Defence Statistics implement a series of data quality checks throughout the report production. These checks involve close liaison with the DBS when required, to ensure the accuracy of the figures published.

6.2 Data Revisions

- Data revisions are handled in accordance with the MOD's Official Statistics Revisions and Corrections Policy.

- In June 2022 Defence Statistics found that some changes to previously reported information. Changes to previously reported data are annotated by [r]. There has been no impact on the overall findings of previous reports.

7 Timeliness and Punctuality

7.1 Timeliness

- Publication dates for the UK Armed Forces Mental Health Annual Summary report are set as mid-to-late June. The publication dates ensure data is available and at a suitable level of accuracy and allow sufficient time for processing and producing the reports.

7.2 Punctuality

- All Statistical Notices have been published on time to meet preannounced release dates. A one-year release schedule outlining the following financial year's publication date is

published on the gov.uk Official Statistics Release Calendar. Future publication dates will also be announced on the UK Statistics Authority hub at least one month in advance.

8 Coherence and Comparability

- The annual mental health publication presents data back to financial year 2007/08 for MOD Specialist Mental Health Services data and back to 2012/13 for all mental health data (primary care and specialist care) with analysis of the latest one year period. This gives the user the opportunity to assess trends over time for different demographics/diagnosis, providing a balance between presenting analysis for a sufficient period of time from which to provide meaningful data with the need to monitor the impact of MOD policy.

- Due to the changes in methodology care must be taken when comparing trends over time. Data between 2009/10 and 2011/12 use the same methodology of capturing new episodes of care data and data in years 2007/08, 2008/09, 2012/13 and 2013/14 cannot be directly compared to this period.

- As Defence Statistics MOD Specialist Mental Health Services data starts from April 2007 the publications do not include personnel who were receiving treatment prior to April 2007. The data in this series report attendances for new episodes of care only after April 2007, not all those who were receiving treatment at the start of data collection.

- Data on all mental health (primary care and specialist care) starts from April 2012. Those treated for their mental health in primary care before this are not included in the analysis.

- Comparisons with rates of mental disorders among the UK general population are also provided in the annual report. These comparisons use those aged 16-59, from the Mental Health Bulletin and from the Adult Psychiatric Morbidity Survey provided by NHS Digital. The NHS Digital Mental Health Services Monthly Statistics are also monitored to identify any differences in the UK general population.

9 Accessibility and Clarity

Accessibility

- All reports are published on the Defence Gov.uk website. Publications are available from 0930 hours on the day of release.

- Each report is published in an accessible PDF file. Tables and figures from each statistic are separately available in both accessible Excel and Open Data Source (ODS) formats to download. This allows for use in individual research and reports. Defence Statistics are currently ensuring all published information is equally accessible by everyone.

- Each report is accompanied by commentary on trends in order to provide the user with key points and give understanding in each section.

- 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.

Clarity

- Users with an interest in the key findings can read a short summary of main messages at the start of the report. The Statistical Bulletin presents visual key messages which highlights the percentage of UK Armed Forces personnel seen in all military health care for a mental health related reason in the latest financial year, as well as the percentage seen for a mental disorder at MOD Specialist Mental Health Services. It also highlights the main demographic risk groups and how that compares to the UK general population and supplies the proportion of serving personnel assessed with PTSD at a DCMH in the latest year.

- Figure 1 to Figure 3 in the supplementary tables present numbers, percentages, rates and 95% confidence intervals of UK Armed Forces personnel seen in all military healthcare for a mental health related reason. Figure 4 to Table 3a present numbers, percentages, rates and 95% confidence intervals of UK Armed Forces personnel seen in MOD Specialist Mental Health Services. Annex E presents calls received by the Reserve Mental Health Programme and Annex G presents the number of claims awarded for mental health conditions under the Armed Forces Compensation Scheme.

10 Trade-offs between Output Quality Components

- Where possible Defence Statistics minimise the cost to Government of producing these statistics through using data already collated for operational delivery purposes within the MOD's Joint Personnel Administration system. As a large administrative system, data quality across fields is of varying quality and completeness and this limits the information available in real time.

11 Cost and Respondent Burden

- Annual updates of each publication take two members of staff approximately five weeks to prepare, including data preparation, validation and report writing.

- The use of custom designed databases in conjunction with the automatically updating Microsoft Excel and R documents ensures the minimum production time is required, thus keeping production costs to a minimum and ensuring data are as timely as possible.

- The move to using DMICP as the single source of DCMH data for these reports has reduced the data reporting burden on DCMH staff.

12 Confidentiality and Security

12.1 Confidentiality – Policy

- All Defence Statistics staff involved in the production have signed a declaration that they have completed the government wide Protecting Information Level 1 training and they understand their responsibilities under the Data Protection Act and the Official Statistics Code of Practice. All staff involved in the production process have signed the Data

Protection Act, and all MOD, Civil Service and data protection regulations are adhered to. All data are stored, accessed and analysed using the MOD's restricted network and IT systems.

- Defence Statistics adhere to the principles and protocols laid out in the Code of Practice for Official Statistics and comply with pre-release access arrangements. The Defence Statistics Pre-Release Access lists are available on the gov.uk website.

12.2 Confidentiality – Data Treatment

- Publications do not contain any identifiable personal data. The information presented in each publication has been structured in such a way to release sensitive medical information into the public domain that contributes to the MOD accountability to the British public, but which doesn't compromise the operational security of UK Armed Forces personnel nor that risk breaching the rights of UK Armed Forces personnel.

- In line with the directives of the JSP 200, disclosure control is conducted on all statistical information provided by the MOD to safeguard the confidentiality of individuals. Within these statistics a risk of disclosure has been considered to be high where numbers presented are fewer than five. In cases where a risk of disclosure exists the following appropriate disclosure control method has been applied:
    a) Figures have been suppressed: In most cases where there may be a risk of disclosure, numbers fewer than five have been suppressed and marked as '~' or [c]. Where there is only one cell in a row or column that is fewer than five, secondary suppression has been applied where the next smallest number has also been suppressed so that numbers cannot simply be derived from totals.

- Some tables after 1 October 2015 include numbers fewer than five for records missing a mental disorder; this is because it presents numbers in a non-medical category and there is no risk to individuals' identities being disclosed.

12.3 Security

- The files are all stored on a secure MOD network, with access to files limited to individuals in Defence Statistics Health. All MOD, Civil Service and data protection regulations are adhered to.

Last updated: 15 June 2022