Report Update:
Description of Joint Base Pearl Harbor-Hickam DoD-affiliated Housing Residents' Behavioral and Neurodevelopmental Health Medical Encounters Related to the JP-5 Release, 20 November 2020 – 30 November 2022

EpiData Center
Prepared August 2023

Contents

Executive Summary

This updated report examines medical visit coding data on Department of Defense (DoD) - affiliated individuals living in Joint Base Pearl Harbor-Hickam (JBPHH) housing identified in the Defense Occupational and Environmental Health Readiness System Incident Report (DOEHRS IR) for the Red Hill JP-5 (Jet Propellant) fuel release. It assesses the number of occasions individuals presented to a DoD Health Care Provider (HCP) or a TRICARE funded HCP documenting a behavioral or neurodevelopmental health diagnosis. This population-based report is based on administrative coding data, cannot confirm any diagnoses or establish or prove any causal connection of behavioral or neurodevelopmental health diagnoses to the fuel release event.

DOEHRS is a DoD system of record that allows groups (cohorts) of DoD-affiliated individuals who may have experienced a defined environmental exposure during a defined time period to be documented and tracked over time. The DOEHRS IR for Red Hill contained 27,797 individuals identified as residing or working at JBPHH at the time of the JP-5 fuel release into its water system on 20 November 2021 (the Red Hill Cohort). Non-DoD-affiliated individuals were not included in this analysis because Defense Centers for Public Health-Portsmouth (DCPH-P) does not have access to non-DoD-affiliated medical data.

This updated report expands the surveillance period to 12 months prior to and 12 months following the release event. Medical visit records between 20 November 2020 and 30 November 2022 in the DoD data systems on members of the Red Hill Cohort were queried from the Military Health System (MHS) and purchased care data systems for behavioral and neurodevelopmental health-related conditions.

- 27,797 total DoD-affiliated Red Hill Cohort members at the time of this surveillance analysis:
  - 5,731 (20.6%) Cohort members sought care for behavioral and neurodevelopmental health-related conditions following the release event.
  - 853 (3.1%) of the Cohort had their first visit for one of the behavioral or neurodevelopmental diagnostic categories after the release on 20 November 2021 and at least 5 additional visits for the same diagnosis through the end of the surveillance period of this report.
- Analyses of behavioral and neurodevelopmental health-related visits showed there was no significant change in visits across the surveillance period. Periodic fluctuations were observed for mood disorder visits and anxiety disorders.

Purpose

This report utilizes administrative medical coding data, as a surrogate for population-based health care utilization, to better understand the behavioral and neurodevelopmental health impact on the 27,797 individuals identified in the updated Defense Occupational and Environmental Health Readiness System Incident Report (DOEHRS IR) known as the Red Hill Cohort. The goal is to assess the trends in visits for behavioral and neurodevelopmental health diagnostic categories [1,2] (Table A1) including a baseline assessment twelve months prior to the release on 20 November 2021 compared to behavioral and neurodevelopmental health care utilization after the release.

Background

On 28 November 2021, the Hawai'i Department of Health (DOH) and the Hawai'i Poison Center began receiving reports of a fuel-like taste, odor, and sheen in the drinking water at JBPHH.[3] This was later attributed to a release of JP-5 fuel at the Red Hill Bulk Fuel Storage facility on 20 November 2021 (the release event).[4] U.S. Navy water system users residing in Joint Base Pearl Harbor-Hickam (JBPHH) housing were impacted by the contaminated drinking water[5] and were provided alternative housing. The Commander, U.S. Pacific Fleet, requested the establishment of a DOEHRS IR to document the potential exposure period and provide a repository for Department of Defense (DoD)-affiliated individuals potentially affected by exposure to JP-5 fuel in the JBPHH drinking water system.[6]

DOH declared the water safe to drink for the first of 19 affected zones on 14 February 2022. By 18 March 2022, safe drinking water was restored to all residential zones served by the Navy's water system.[3] On 12 January 2023, the Navy reported the most recent analysis showed drinking water from the 19 Navy water distribution zones continued to meet U.S. Environmental Protection Agency (EPA) and DOH standards (Figure A1).[7]

Methods

The DOEHRS IR for Red Hill contained 28,246 individuals at the time of this report and was comprised primarily of DoD-affiliated military housing residents (including Coast Guard) served by the JBPHH water system, temporary additional duty (TAD)/temporary duty travel (TDY) status, visitors to military family housing, and JBPHH workers at the time of the JP-5 fuel release into its water system on 20 November 2021. Individuals were excluded from the analysis if military health system data were not available (n=449), leaving 27,797 DoD-affiliated individuals in this analysis. The DOEHRS IR roster of the Red Hill Cohort included the DoD identification number (DoD ID) for these individuals and was used to establish the population in this surveillance report.

This report examines the behavioral and neurodevelopmental health-related medical visits to a DoD or TRICARE authorized DoD health care provider (HCP) where the International Classification

of Diseases 10th Revision (ICD-10) code matched a behavioral or neurodevelopmental health (BNH) diagnosis (Table A1).

All records for Military Health System (MHS) direct care (patients seen by MHS providers) and TRICARE claims for purchased care (patients seen by non-MHS providers) at any location with a visit date between 20 November 2020 and 30 November 2022, for symptoms listed in Table A1 were collected, including all ambulatory and inpatient medical records. The data sources were:

- Comprehensive Ambulatory Professional Encounter Record (CAPER)
- Standard Inpatient Data Record (SIDR)
- MHS GENESIS Episodic Encounter Table
- MHS GENESIS Admissions Table
- TRICARE Encounter Data Non-Institutional (TED-NI) (ambulatory)
- TRICARE Encounter Data Institutional (TED-I) (inpatient)

The Red Hill Bulk Fuel Storage release event occurred on 20 November 2021,[8] and the first reported health complaint of contaminated drinking water was 28 November 2021.[3] This assessment was completed for BNH related diagnostic categories to understand the potential social and emotional related impacts from the event.

A pre-event baseline referred to as Period 1, was established with visit data from 20 November 2020 to 19 November 2021 to provide a history of a patient's BNH visit diagnoses. Data were examined from 20 November 2021 to 30 November 2022 to identify visit trends after the release event and referred to as Period 2.

During Period 2, patients who had at least one BNH related diagnosis were classified as being Screened or having Multiple Visits. Screened patients had one to five visits for the same diagnostic category whereas patients with Multiple Visits had ≥6 visits for the same diagnostic category.

For each diagnostic category, three subcategories of patients were created as visualized in Figure A2:

- Screened
  - New Screened Patients: had 1 to 5 visits for a diagnostic category of interest during Period 2; however, they had no visits for that diagnostic category during Period 1
- Multiple Visits
  - New Patients: had multiple visits for care for the same diagnostic category (≥6 visits) in Period 2 *and* 0-5 visits for the same diagnostic category during Period 1

- Pre-established Patients: had multiple visits for care for the same diagnostic category in Period 2 (≥6 visits) *and* ≥6 visits for the same diagnostic category during Period 1

Results

Cohort Demographics

Demographics within the Red Hill Cohort are displayed in Table A2. Among the Cohort, 51.6% (n=14,351) were dependents of active-duty Service members and 41.7% (n=11,579) were affiliated with the Navy. Most of the Cohort was between 18 and 44 years old (59.1%), with 32.4% under the age of 18.

Behavioral and Neurodevelopmental Health Diagnoses

Within the Red Hill Cohort, 20.6% (n=5,731) sought medical care for BNH diagnoses (Figure A3) following the release event. Of the total Cohort (N=27,797), 853 patients (3.1%) had Multiple Visits for one of the behavioral or neurodevelopmental diagnostic categories after the release event, but 0 to 5 visits for that same diagnosis in the year leading up to the release event.

Among the Cohort, 2,812 members (10.1%) had no medical records. There were 7,473 Red Hill Cohort members who had at least one diagnosis potentially associated with fuel exposure after the release event. These diagnoses include central nervous system, gastrointestinal, dermatological, mucous, and respiratory symptoms as well as toxic effects symptoms. Of these 7,473 individuals, 2,637 (35.3%) sought care for a BNH diagnosis after the release event. Of the 17,512 cohort members with a medical record who did not have diagnoses associated with fuel exposure, 3,094 (17.7%) sought care for a BNH diagnosis. The difference in BNH diagnoses between the two groups is statistically significant (χ^2, $p < 0.0001$).

Behavioral diagnoses fall into 11 major diagnostic categories: anxiety, mood disorders, behavioral disorders with onset in childhood, developmental disorders, behavioral syndromes with physical factors, substance use disorders, personality conditions, mental disorders due to physiological conditions, schizophrenia, intellectual disabilities, and unspecified mental disorders. Figure A4 illustrates the difference in the number of patients between Period 1 and Period 2 for these 11 diagnostic categories. The number of patients increased from Period 1 to Period 2 for the following categories: anxiety (+6.4%), behavioral disorders with onset in childhood (+5.5%), mood disorders (+5.3%) and personality conditions (+1.4%). The number of patients declined for the following behavioral diagnoses: behavioral syndromes with physical factors (-38.9%), mental disorders due to physiological conditions (-19.0%), substance use disorders (-10.2%) and developmental disorders (-8.8%). Less than 50 patients in each period were diagnosed with intellectual disabilities, schizophrenia, or unspecified mental illness.

Table A3 shows the number of patients by age group and ICD-10-CM description with at least one BNH diagnosis during Period 2. The most common diagnostic category was anxiety and stress-related, with individuals in the 25-44 age group most frequently affected (62%, n=2,362). Among cohort members in this age group with BNH diagnoses, 82% had an anxiety or stress-related disorder. The second most common diagnostic category was mood disorders. Similarly, individuals in the 25-44-year-old age group were most frequently impacted (61%, n=945). Among cohort members in this age group with BNH diagnoses, 33% had a mood disorder. The third most common diagnostic category was behavioral and emotional disorders with onset usually occurring in childhood; a category that includes attention-deficit/hyperactivity disorder (ADHD), conduct disorders, and tics. Of the third most common group, the most frequently affected age group were children aged 5-14 (43%, n=596). Among children aged 5-14 with BNH diagnoses, 55% had a disorder with onset usually occurring in childhood. The fourth most common diagnostic category was pervasive and specific developmental disorder, a category that includes some learning disabilities, autism, and developmental delays. Of the fourth most common category, the most frequently affected age group were children under 15 (88%, n=621). In this age group, 46% of children with BNH diagnoses had a developmental disorder. The distribution of diagnoses by age group during Period 1 was similar to Period 2.

Figure A5 shows the age distribution for patients who received any BNH diagnosis in Period 2. A single patient can be counted in more than one diagnostic category; therefore, the sum of all cases in Table A3 exceeds the total number of distinct patients in Figure A3 (n=5,731). Individuals aged 35-44 comprised a higher percentage of patients with BNH diagnoses (25%, n=1,444) compared with their representation in the total Cohort (20%, n=5,527). Children under the age of 18 comprised a smaller percentage of patients diagnosed with BNH conditions (28%, n=1,601) compared with their representation in the total Cohort (32.4%, n=9,003).

Table A4 provides an overview of the patients who were seen for BNH diagnoses. For the most common diagnostic categories, there were more patients requiring Multiple Visits than Screened patients. The most common diagnostic categories for patients in the Multiple Visits category were anxiety and stress-related visits (n=1,356), mood disorder (n=540), behavioral and emotional disorders with onset usually occurring in childhood (n=367), and pervasive and specific developmental disorders (n=358). Among patients with Multiple Visits for developmental disorders, 37% were New Patients, meaning that they had fewer than six visits for the condition during Period 1. For all three of the other conditions mentioned, New Patients comprised a majority, averaging 59%.

In Period 2, the median number of visits for New Patients was, for most categories, lower than the median number of visits for Pre-Established Patients. Pre-established Patients did not see a

statistically significant change in the median number of visits per month after the release event compared to before the release event (Wilcoxon Rank Sums, p=0.1953 [data not shown]).

The most common diagnosis categories for Screened patients were anxiety disorders (n=2,476), mood disorders (n=648), behavioral disorder with onset in childhood (n=470) and behavioral syndromes associated with physical factors (n=238). On average, 61% of these were New Screened Patients, meaning that they had no record of these conditions in the year leading up to the release event.

Figure A6 shows weekly trends and an eight-weeks moving average of visits from the week of 22 November 2020 through the week of 20 November 2022. In the week following the DOH advisory, visits for anxiety (n=488) and mood disorders (n=211) were within range compared to the month leading up to the DOH advisory. Across the entire surveillance period, visits for anxiety and mood disorders did not show a statistically significant trend (Kendall-Mann Trend Test, p=0.1891, p=0.4413, respectively).

In the week following the DOH advisory, visits for behavioral syndromes with physical factors (n=32), a category that includes eating disorders, sleep disorders and post-partum depression, were higher than the numbers of weekly visits observed in the month preceding the DOH advisory, but short of the peak observed in February 2021. Across the entire surveillance period, there was a statistically significant decline in visits for behavioral syndromes with physical factors (Kendall-Mann Trend Test, $p < 0.0001$, Figure A6).

Discussion

This report used medical diagnosis codes to analyze medical visit records related to behavioral and neurodevelopmental health conditions and symptoms among the Red Hill Cohort. This updated report expanded the surveillance period to 12 months prior to and 12 months following the release event, from 20 November 2020 – 30 November 2022. Approximately 21% of the Cohort sought medical care for BNH symptoms after the release event on 20 November 2021.

The most common diagnoses after the release event were related to anxiety and stress and mood disorders. Among these categories, most were Screen Patients seen for fewer than 6 visits and more than half were New Screened Patients who had no record of the same condition the year before the release event. There was a short-term increase in visits for behavioral syndromes related to physical factors immediately after the fuel release. However, there was no overall increase in visits for behavioral and neurodevelopmental health disorders.

Limitations

Variability in the data can be attributed to the coding practices by the health care providers. Data for medical surveillance are considered provisional, and medical case counts may change if the electronic medical record is updated after this report was generated. Additionally, because purchased care records are submitted into the health care system at different times, there may be a time lag that could alter the findings and conclusions of this report. The authors made every effort to obtain the most up-to-date records available.

Children seen for pervasive and developmental disorders are often seen outside of the MHS for speech pathology, scholastic skills improvement, developmental delays, and other assistance. These additional resources may not be captured in the MHS data.

Glossary

Comprehensive Ambulatory Professional Encounter Record (CAPER): Records created by providers after a visit with a patient using the military health system. Each observation in CAPER file represents an ambulatory visit at an MTF, inpatient rounds data, or administrative function.

DoD Health Care Providers (HCP): A physician, physician assistant, nurse practitioner, advanced practice nurse, independent duty corpsman, independent duty medical technician, independent health services technician, special forces medical sergeant, or dentist who works for the DoD. The term "health care provider" is broader than "licensed independent practitioner."

GENESIS Admissions Table: Inpatient data from military electronic health records. Each observation in the GENESIS Admissions table represents an inpatient admission to an MTF that has transitioned to the MHS GENESIS system.

GENESIS Episodic Encounter Table: Records created by providers after a visit with a patient using the MHS electronic medical records system, MHS GENESIS, established in 2019. Each observation in the GENESIS Episodic Encounter table represents a visit at an MTF that has transitioned to the MHS GENESIS system and includes ambulatory or administrative function data.

JP-5: JP-5 fuel is a kerosene-based fuel used in military aircraft and is mostly Total Petroleum Hydrocarbons (TPH) diesel range organics.

MHS Direct Care: Medical care provided to Service members and beneficiaries from health care facilities and medical support organizations owned by the DoD.

Military Health System (MHS): A health system that supports the military mission by fostering, protecting, sustaining, and restoring health and providing the direction, resources, health care providers, and other means necessary for promoting the health of the beneficiary population.

Multiple Visits: Patients with multiple visits had six or more visits with the same diagnosis during Period 2.

New Screened: New patients that only had initial screening assessment with the same diagnosis (1 to 5 visits) in Period 2.

New Patients: New patients with multiple visits for care beyond their initial assessment with the same diagnosis (≥ 6 visits) in Period 2 and one to five visits with the same diagnosis during Period 1.

Pre-established Patients: Pre-existing patients with multiple visits for care with the same diagnosis after the event (≥ 6 visits) and six or more visits with the same diagnosis during Period 1.

Purchased Care: Medical care provided by civilian providers, including individuals, groups, hospitals, and clinics, who have agreed to accept TRICARE beneficiaries. Providers in the

purchased care system generally deliver health care at negotiated rates, adhere to provider agreements, and follow other requirements of the managed care program.

Red Hill Cohort: DoD-affiliated military housing residents (including Coast Guard) at JBPHH, temporary additional duty (TAD)/temporary duty travel (TDY) visitors, and base workers at the time of the JP-5 fuel release into its water system on 20 November 2021.

Red Hill Cohort Period 1: A pre-event baseline with visit data from 20 November 2020 to 19 November 2021.

Red Hill Cohort Period 2: After event visit data from 20 November 2021 to 30 November 2022.

Standard Inpatient Data Record (SIDR): Inpatient data from military electronic health records. Each observation in SIDR file represents an inpatient admission to an MTF.

TRICARE funded HCP: Civilian providers, including individuals, groups, hospitals, and clinics who provide health care to DoD beneficiaries and bill through the TRICARE health care program.

TRICARE Encounter Data Non-Institutional (TED-NI): Records created by providers after a visit with a patient using the TRICARE health care program. Each observation in TED-NI represents an ambulatory visit.

TRICARE Encounter Data Institutional (TED-I): Inpatient records created after an inpatient admission for a patient using the TRICARE health care program.

References

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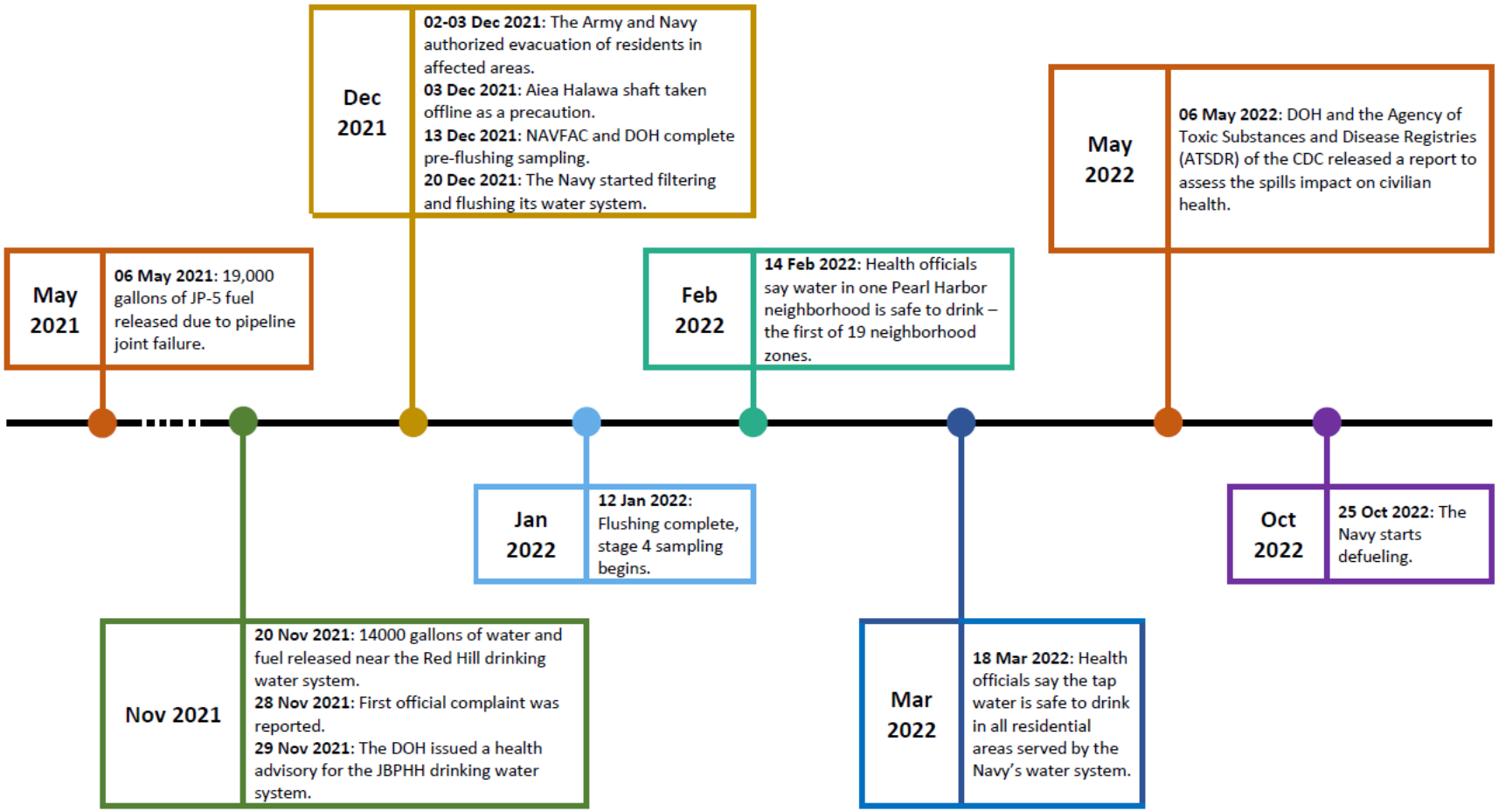
Appendix A

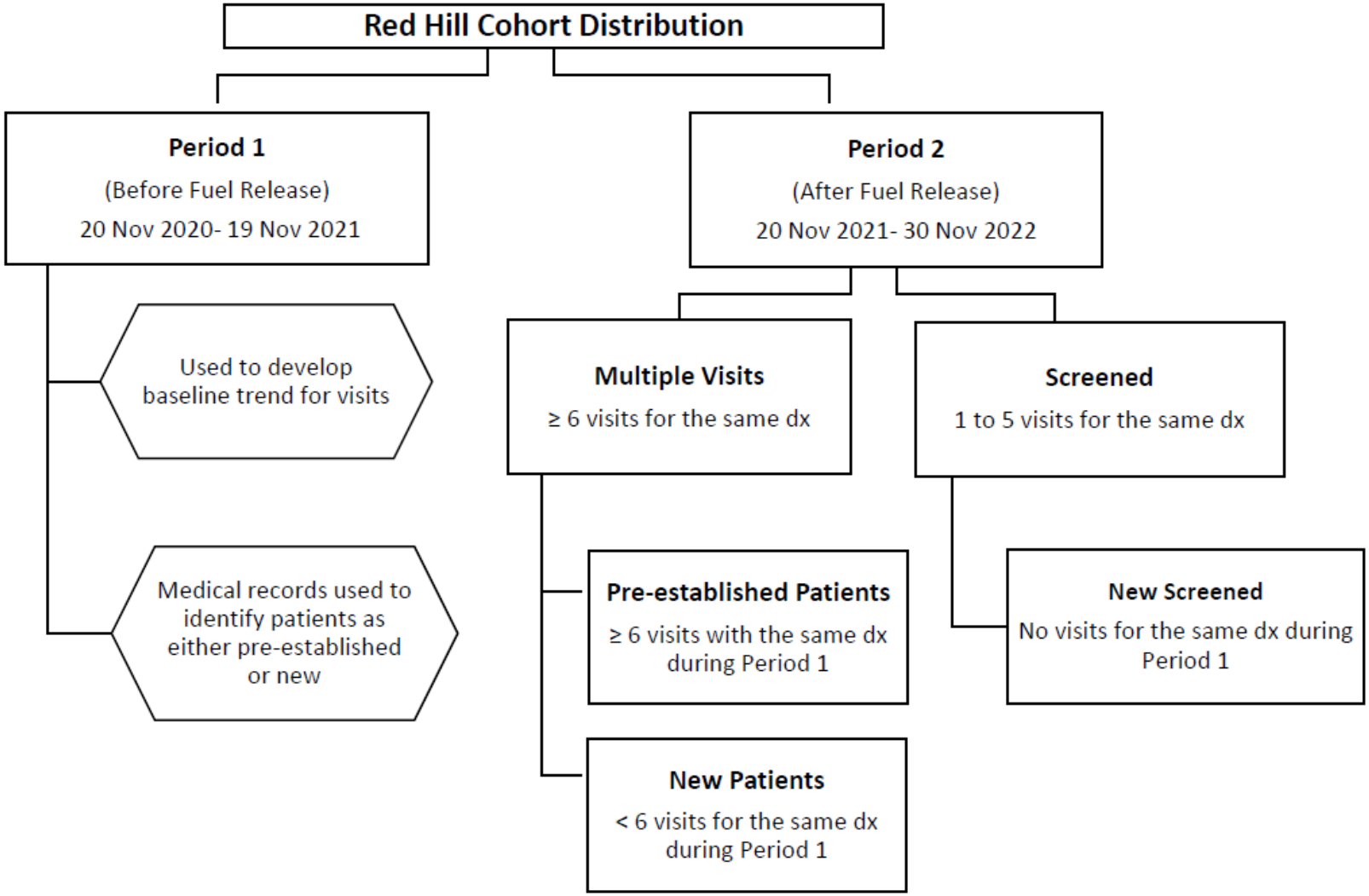
Table A1. Behavioral and Neurodevelopmental Health ICD-10 F Code Categories and Ranges[1,2]	
Mental disorders due to known physiological conditions	F01-F09
Mental and behavioral disorders due to psychoactive substance use*	F10-F19
Schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders	F20-F29
Mood (affective) disorders	F30-F39
Anxiety, dissociative, stress-related, somatoform, and other nonpsychotic mental disorders	F40-F48
Behavioral syndromes associated with physiological disturbances and physical factors	F50-F59
Disorders of adult personality and behavior	F60-F69
Intellectual disabilities	F70-F79
Pervasive and specific developmental disorders	F80-F89
Behavioral and emotional disorders with onset usually occurring in childhood and adolescence	F90-F98
Unspecified mental disorder	F99
*Excludes F17 nicotine dependence	

Figure A1. Red Hill Timeline of Key Events[3,5,8,9]



Prepared by the EpiData Center (EDC), Defense Centers for Public Health-Portsmouth (DCPH-P) on 18 April 2023.

Figure A2. Overview of the Distribution of the Red Hill Cohort for Behavioral Health Visits

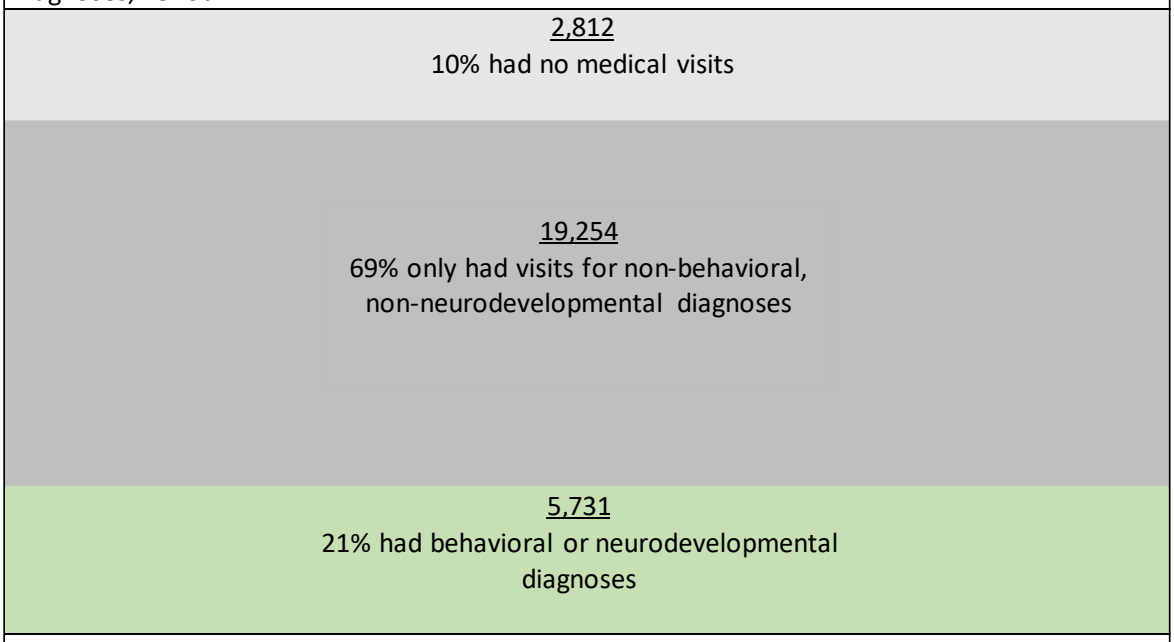


Prepared by the EpiData Center (EDC) Defense Centers for Public Health-Portsmouth (DCPH-P) on 27 April 2023.

Table A2. Demographics of Red Hill Cohort		
Sex	No.	Percent
Female	12,697	45.68
Male	15,100	54.32
Beneficiary Category		
Active Duty Family	14,351	51.63
Active Duty	10,458	37.62
Retiree Family	1,112	4.00
Retirees	673	2.42
Dep of Guard/Res on AD	640	2.30
Guard/Res on AD	319	1.15
Inactive Guard/Res Family	93	0.33
Inactive Guard/Res	77	0.28
Other	66	0.24
Survivor	8	0.03
Service		
Navy	11,579	41.66
Army	7,510	27.02
Air Force	7,240	26.05
Coast Guard	705	2.54
Marine Corps	609	2.19
Space Force	141	0.51
Public Health Service	10	0.04
National Oceanic & Atmospheric Admin	2	0.01
Foreign Army	1	0.00
Age Group		
0-4	2,009	7.23
5-14	5,846	21.03
15-17	1,148	4.13
18-24	4,622	16.63
25-34	6,288	22.62
35-44	5,527	19.88
45-64	2,224	8.00
65+	133	0.48
Race Ethnic Code		
Unknown	7,377	26.54
White, not Hispanic	7,037	25.32
Missing Data	6,768	24.35
Black, not Hispanic	2,181	7.85
Hispanic	2,065	7.43
Asian or Pacific Islander	1,401	5.04
Other	749	2.69
American Indian/Alaskan Native	219	0.79

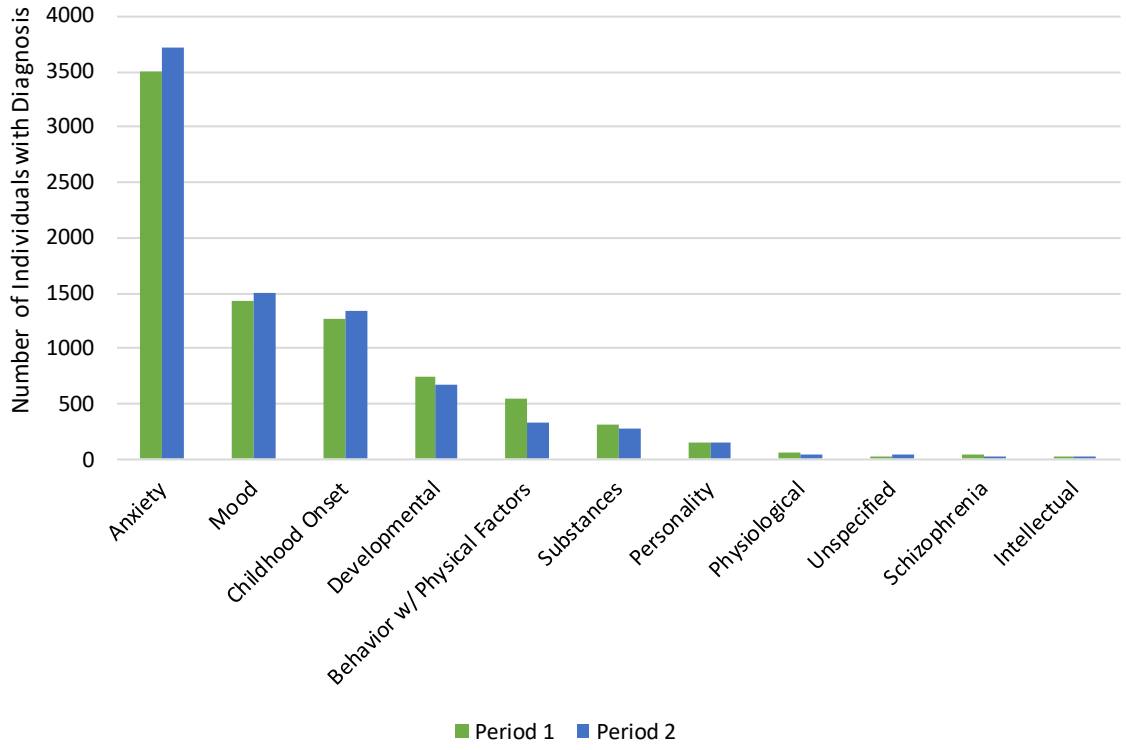
Data Source: Military Health System Management and Analysis Reporting Tool (M2)
Data prepared by the EpiData Center (EDC), Defense Centers for Public Health-Portsmouth (DCPH-P) on 18 April 2023.

Figure A3. Red Hill Cohort Population (n=27,797) with Behavioral and Neurodevelopmental Diagnoses, Period 2



Data Sources: Standard Inpatient Data Record (SIDR), Comprehensive Ambulatory Professional Encounter Record (CAPER), TRICARE Encounter Data Institutional (TED-I), TRICARE Encounter Data, Non-Institutional (TED-NI), GENESIS Episodic Encounter, GENESIS Admission
Data prepared by the EpiData Center (EDC), Defense Centers for Public Health-Portsmouth (DCPH-P) on 18 April 2023.

Figure A4. Number of Individuals with at least one Behavioral or Neurodevelopmental Diagnosis by Diagnostic Category and Period, Red Hill Cohort*



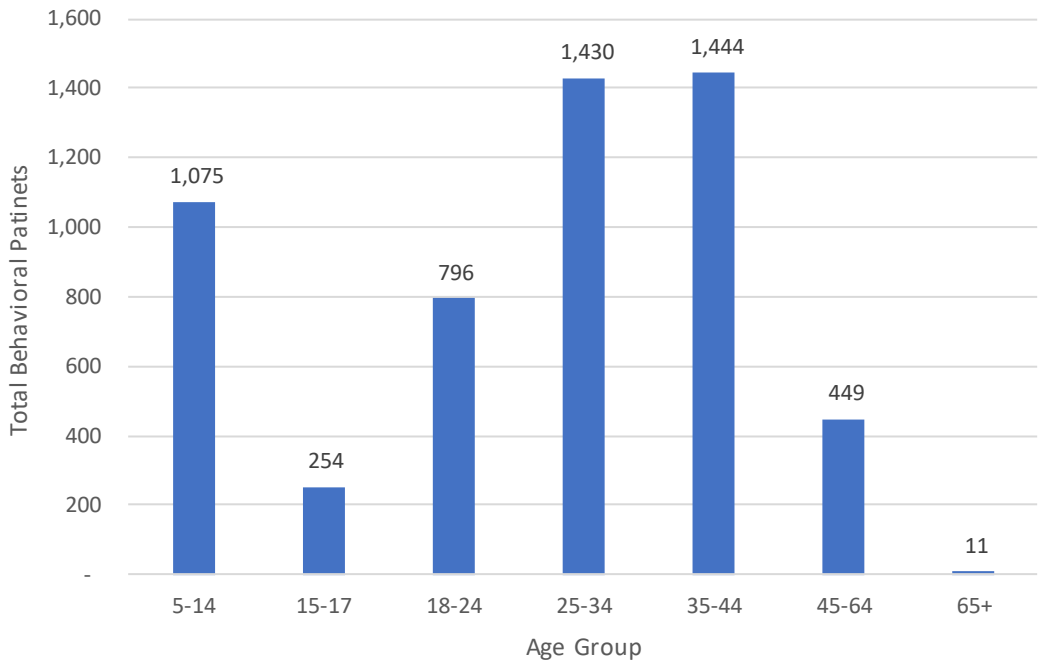
Record (CAPER), TRICARE Encounter Data Institutional (TED-I), TRICARE Encounter Data, Non-Institutional (TED-NI), GENESIS Episodic Encounter, GENESIS Admission
Numbers are annualized, to correct for the fact that Period 1 (November 20, 2020-November 19, 2021) and Period 2 (November 20, 2021-November 30, 2022) are not of equal length.
*Patients may be included in more than one diagnostic category.
Data prepared by the EpiData Center (EDC), Defense Centers for Public Health-Portsmouth (DCPH-P) on 27 April 2023.

Table A3. Number of Patients by Behavioral or Neurodevelopmental Health Disorder Category and Age Group, Red Hill Cohort, Period 2

	Age Groups								
Diagnostic Categories	**0 to 4**	**5 to 14**	**15 to 17**	**18 to 24**	**25 to 34**	**35 to 44**	**45 to 64**	**65+**	**Total***
Anxiety, dissociative, stress-related, somatoform & other nonpsychotic mental disorders	13	332	167	579	1,176	1,186	371	8	3,832
Mood (affective) disorders	3	82	96	286	505	440	138	3	1,553
Behavioral & emotional disorders, onset occuring in childhood & adolescence	40	596	114	131	229	221	49	0	1,380
Pervasive & specific developmental disorders	225	396	38	34	5	6	0	0	704
Behavioral syndromes associated with physical factors	6	23	15	51	87	108	50	2	342
Mental & behavioral disorders due to psychoactive substance use	1	3	5	87	92	75	24	3	290
Disorders of adult personality and behavior	3	21	14	45	42	18	7	1	151
Mental disorders due to known physiological conditions	2	6	4	10	18	11	2	0	53
Unspecified mental disorder	1	1	0	7	16	13	4	0	42
Schizophrenia, schizotypal, delusional & other non-mood psychotic disorders	0	0	4	14	9	5	3	0	35
Intellectual disabilities	0	4	1	2	0	1	0	0	8

Data Sources: Standard Inpatient Data Record (SIDR), Comprehensive Ambulatory Professional Encounter Record (CAPER), TRICARE Encounter Data Institutional (TED-I), TRICARE Encounter Data, Non-Institutional (TED-NI), GENESIS Episodic Encounter, GENESIS Admission
*Patients may be included in more than one diagnostic category.
Period 2 is 20 November 2021 to 30 November 2022.
Data prepared by the EpiData Center (EDC), Defense Centers for Public Health-Portsmouth (DCPH-P) on 18 April 2023.

Figure A5. Total Patients with Behavioral or Neurodevelopmental Health Diagnoses by Age Group, Period 2



Data Sources: Standard Inpatient Data Record (SIDR), Comprehensive Ambulatory Professional Encounter Record (CAPER), TRICARE Encounter Data Institutional (TED-I), TRICARE Encounter Data, Non-Institutional (TED-NI), GENESIS Episodic Encounter, GENESIS Admission.
Period 2 is 20 November 2021 to 30 November 2022.
Data prepared by the EpiData Center (EDC), Defense Centers for Public Health-Portsmouth (DCPH-P) on 18 April 2023.

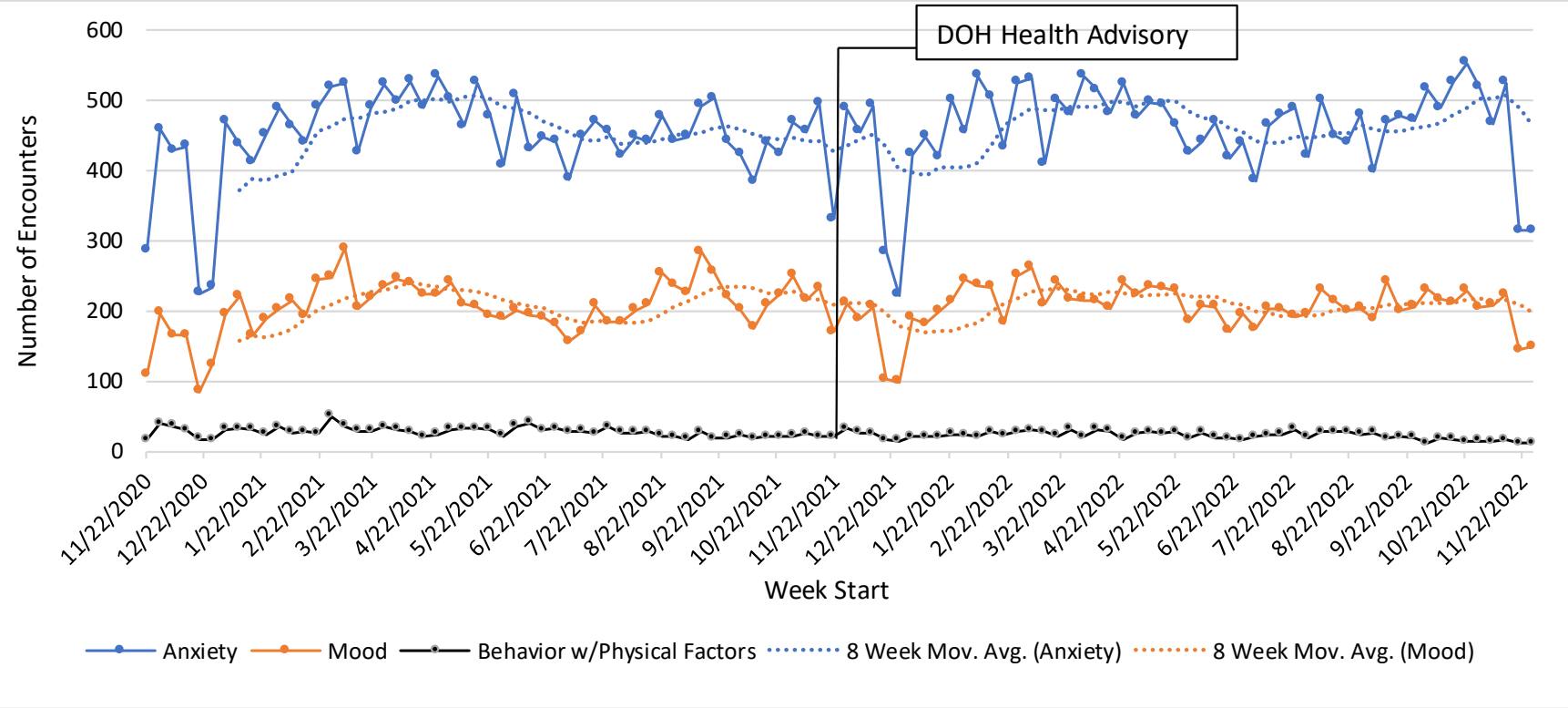
Red Hill BNH Review
Prepared August 2023

Table A4. Continuing Care vs Screening Patients by Behavioral Disorder Category, Red Hill Cohort, November 20, 2021-November 30, 2022

Diagnosis Category	ICD-10 Codes	Patients with Multiple Encounters							Screened Patients	
		New Patients				Pre-Established Patients				
		Total N	No. New Patients	Median No. Visits	Range of Visits	No. Pre-established Patients	Median No. Visits	Range of Visits	Total N	No. New Screened
Anxiety, dissociative, stress-related, somatoform & other nonpsychotic mental disorders	F40-F48	1356	831	10	6-84	525	13	6-80	2476	1388
Mood (affective) disorders	F30-F39	540	317	10	6-90	223	13	6-186	1013	648
Behavioral & emotional disorders with onset usually occuring in childhood and adolescence	F90-F98	367	207	8	6-90	160	10	6-90	1013	470
Pervasive & specific developmental disorders	F80-F89	358	134	21	6-190	224	44	6-264	346	212
Mental & behavioral disorders due to psychoactive substance use	F10-F16,F18-F19	106	80	15	6-75	26	14	6-75	184	148
Behavioral syndromes associated with physical factors	F50-F59	37	28	11	6-45	9	36	12-102	305	238
Disorders of adult personality and behavior	F60-F69	31	22	12	6-64	9	11	7-75	76	56
Schizophrenia, schizotypal, delusional and other non-mood psychotic disorders	F20-F29	11	5	8	6-15	6	13	6-28	24	19
Intellectual Disabilities	F01-F09	3	3	7	6-26	0	-	-	5	1
Mental disorders due to known physiological conditions	F70-F79	1	1	11	11-11	0	-	-	52	46
Unspecified mental disorder	F99	0	0	-	-	0	-	-	42	40

Data Sources: Standard Inpatient Data Record (SIDR), Comprehensive Ambulatory Professional Encounter Record (CAPER), TRICARE Encounter Data Institutional (TED-I), TRICARE Encounter Data, Non-Institutional (TED-NI), GENESIS Episodic Encounter, GENESIS Admission
Patients may be included in more than one diagnostic category.
Data prepared by EpiData Center (EDC), Defense Centers of Public Health-Portsmouth (DCPH-P) on August 10, 2023

Figure A6: Weekly visits for Mood Disorders, Anxiety, Substance Use, and Behavioral Syndromes with Physical Factors, Red Hill Cohort, November 22, 2020-November 29,2022



Data Sources: Standard Inpatient Data Record (SIDR), Comprehensive Ambulatory Professional Encounter Record (CAPER), TRICARE Encounter Data Institutional (TED-I), TRICARE Encounter Data, Non-Institutional (TED-NI), GENESIS Episodic Encounter, GENESIS Admission

Data prepared by the EpiData Center (EDC), Defense Centers of Public Health-Portsmouth (DCPH-P) on August 10, 2023