Quarterly PDHA (DD2796) Health Screen Report, CY 2018 Quarter 4

Overall Assessment
This calendar year (CY) quarterly report tracks major areas of concern as related to the EpiData Center Department by previous short-term reports, the media, and leadership requests as reported by members and providers on the Post Deployment Health Assessment (PDHA). The report is generated for United States Navy (USN) and United States Marine Corps (USMC) service members by service component. The areas of focus are: post-traumatic stress disorder (PTSD), traumatic brain injury (TBI), major depressive disorder (MDD), alcohol use disorder, and suicide/homicidal risk. The report identifies positive screens and referrals in all focus areas.

Figure 1 shows the number of service members who had a certified PDHA from December 2017 to December 2018. The number of PDHAs completed by USMC service members increased by 17.1% from Q3 (N= 3,091) to Q4 (N= 3,620). The number of PDHAs completed by USMC service members fluctuated throughout the report period ranging from a report high in March 2018 (N=2,208) to a report low in June 2018 (N=229). The number of PDHAs completed by USN service members decreased by 16.3% from Q3 (N=1,904) to Q4 (N=1,593). The highest and lowest number of PDHAs completed by USN service members in the 13-month report period was in March 2018 (N=921) and December 2018 (N=344) respectively.
Figure 1. Number of Service Members Screened on the PDHA, USMC & USN, December 2017 - December 2018

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<tbody>
<tr>
<td>USMC</td>
<td>876</td>
<td>1342</td>
<td>1387</td>
<td>2208</td>
<td>643</td>
<td>484</td>
<td>229</td>
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<td>723</td>
<td>2117</td>
<td>693</td>
<td>1068</td>
<td>1859</td>
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<tr>
<td>USN</td>
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<td>780</td>
<td>573</td>
<td>921</td>
<td>556</td>
<td>508</td>
<td>558</td>
<td>546</td>
<td>522</td>
<td>836</td>
<td>814</td>
<td>435</td>
<td>344</td>
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Prepared by EpiData Center Department, NMCPHC on 24 January 2019.

Data Source: PDHA (DD2796)
USMC

Figure 2 shows the percentage of positive screens for USMC service members for the five behavioral health conditions of interest. MDD and PTSD were consistently the most frequently positive screened conditions throughout the report period. The percentage of positive screens for PTSD and TBI decreased from October to December 2018 while the percentages of MDD and alcohol use disorder decreased from October to November before increasing in December 2018. The percentage of positive screens for suicide/homicide risk remained stable and below 1.0% throughout the reporting period.

Figure 2. PDHA Positive Screens in USMC, December 2017- December 2018

Prepared by EpiData Center Department, NMCPHC on 24 January 2019.
Data Source: PDHA (DD2796)
Figure 3 shows the percentage of referrals made for USMC service members who self-screened positive and had a provider indicated concern for each of the four behavioral health conditions. The percentages of referrals made for PTSD increased from 60% to 100% from October through December 2018. There were no referrals for TBI in October and December 2018 and referrals increased to 66.7% in November. There were no referrals for MDD in October 2018 and referrals remained at or above 90% for the remainder of the fourth quarter. Referrals for alcohol use disorder remained at 100% throughout the fourth quarter.

*Figure 3. PDHA Referrals in USMC, December 2017- December 2018*

<table>
<thead>
<tr>
<th>Month</th>
<th>Percentage of Referrals</th>
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<tbody>
<tr>
<td>Nov-18</td>
<td>100.00%</td>
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<tr>
<td>Oct-18</td>
<td>90.00%</td>
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<tr>
<td>Sep-18</td>
<td>80.00%</td>
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<tr>
<td>Aug-18</td>
<td>70.00%</td>
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<td>Jul-18</td>
<td>60.00%</td>
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<td>Jun-18</td>
<td>50.00%</td>
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<tr>
<td>May-18</td>
<td>40.00%</td>
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<tr>
<td>Apr-18</td>
<td>30.00%</td>
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<tr>
<td>Mar-18</td>
<td>20.00%</td>
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<tr>
<td>Feb-18</td>
<td>10.00%</td>
</tr>
<tr>
<td>Jan-18</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

*No service members self-screened positive and had provider indicated concern for at least one of the four behavioral health conditions; therefore, none were eligible for a referral.*

Prepared by EpiData Center Department, NMCPHC on 24 January 2019.

Data Source: PDHA (DD2796)
USN

Figure 4 shows the percentage of USN service members with positive screens for the five behavioral health conditions of interest. Throughout the reporting period, PTSD and MDD were consistently the most frequent positively screened conditions. Positive screens for PTSD and TBI decreased from October to November before increasing in December 2018 while the percentage of positive screens for MDD decreased from October (3.6%) to December (0.4%) 2018. In addition throughout the reporting period, the percentage of positive screens for alcohol use disorder and suicide/homicide risk remained below 1.0%.

Figure 4. PDHA Positive Screens in USN, December 2017 - December 2018
Figure 5 shows the percentage of referrals made for USN service members who self-screened positive and had provider indicated concern for each of the four behavioral health conditions. The percentage of referrals made for PTSD and MDD remained at or above 50% during the fourth quarter. Referrals for TBI increased from October (33%) to November (100%) and decreased in December (67%) 2018. Referrals for alcohol use disorder remained at 100% from October to November and there were no referrals in December 2018. Although fluctuations may seem visibly significant, actual numbers of positive self-reported screens and provider concern for all conditions were low.

*No service members self-screened positive and had provider indicated concern for at least one of the four behavioral health conditions; therefore, none were eligible for a referral.*

Prepared by EpiData Center Department, NMCPHC on 24 January 2019.

Data Source: PDHA (DD2796)
Methods
The electronic Deployment Health Assessment (eDHA) database was used to identify PDHAs that were provider certified during the report quarter. Using this methodology, a member may have multiple forms included in the quarterly report, if they completed multiple forms with different provider certified dates. Each area of interest has a self-reported section, a provider report section, and a referral section. If a member is already under care, said member will only be counted in the “under care” column regardless of referral status. The following paragraphs explain how screening results in each of the five selected behavioral health conditions were calculated for each version of the assessment. Screening result criteria were defined using literature reviews and authors own validated scoring system on the screens. Please contact the EpiData Center for more information.

PDHA Version 3

Post-Traumatic Stress Disorder (PTSD):
- A positive screen for self reported PTSD was calculated using question 15 in the self report section. Question 15 is identified as the Primary Care PTSD Screen (PC-PTSD) and is said to be endorsed if a member answers at least two of the four questions ‘Yes’.
- Question 19g and 10c on the provider section was used to identify possible concern for PTSD and whether a member was already under professional care for PTSD respectively.
- Referrals for PTSD include the following categories from question 20 on the provider section: behavioral health, mental health and substance abuse.

Traumatic Brain Injury (TBI):
- A positive screen for TBI is recognized as a member endorsing at least 1 answer on question 10.a 1-4 and one answer on question 10.b 1- 3. A persistent TBI is a member who is still having TBI symptoms within the week prior to completing the PDHA. Questions 11e, 11g, 11o, 11q, 11r, 11s, 11u and 11v are the identified symptoms of TBI.
- A provider is said to have concern for TBI if the risk assessment (question 19d, provider section) is endorsed.
- Referrals for persistent TBI include the following categories from question 20 on the provider section: TBI/Rehab Med, behavioral health, mental health, audiology, substance abuse. Also included is question 5c on the provider form where the provider can directly refer a suspected TBI.

Depression (MDD):
- Question 16 of the self-report section is the Patient Health Questionnaire 2 questions (PHQ2) for depression. Each question assessed depressive symptoms and was scored on
a 0-3 level. If either question was answered with a 2 (‘More than half the days’) or 3 (‘Nearly every day’) it was considered a positive self-reported depression screen.

- Question 19b and 11c on the provider section was used to identify possible concern for depression and whether a member was already under professional care for depression.
- Referrals for depression include the following categories from question 20 on the provider section: behavioral health, mental health and substance abuse.

Alcohol Dependence (AUDIT-C):

- Question 14a. – 14c. Is the shorter version of the Alcohol Use Disorders Identification Test (AUDIT), known as the AUDIT alcohol consumption questions (AUDIT-C)? Questions 14a and 14c are tallied (0 – 4) and question 14b is tallied (1-5). The tallied questions are then summed to calculate the overall score. A score of at least 8 is defined as an endorsed screen needing a referral.
- Question 19f and 9b on the provider section was used to identify possible concern for alcohol dependence and whether a member was already under professional care for alcohol dependence respectively.
- Referrals for alcohol misuse include the following categories from question 20 on the provider section: behavioral health, mental health, substance abuse. Also included is question 9b on the provider form where the provider can directly refer a suspected alcohol problem.

Suicide/homicide ideation:

- While there is no specific self-reported question for suicide/homicide ideation on the PDHA, question 16 of the provider section was used to identify potential risk to self and others.
- Question 17 of the provider section assesses the risk of self harm or violence conveyed by the service members.
- Question 19l and 16m on the provider section was used to identify possible concern for suicide/homicide ideation.

Tables 1, 3 & 4 Interpretation

- Number of service members screened (Column 3): the number of service members with the most recent PDHA form that was provider certified in the report month.
- Positive screen (Column 4): represents the number of service members that met the case definition of a positive screen for the behavioral health condition.
- Percentage of total with positive screens (Column 5): this is the number of positive screens for the behavioral health condition, divided by the number of service members screened, multiplied by 100.

- Positive screen and provider concern (Column 6): the number of service members that screened positive and provider indicated concern for the condition.

- Percentage of positive screen and provider concern (Column 7): the number of positive screens and provider concern, divided by the number of service members that screened positive for the condition, multiplied by 100.

- Number of positive screens and provider concerns with a referral (Column 8): referrals among those who screened positive and provider indicated concern for the condition.

- Percentage of referrals (Column 9): referrals among those who screened positive and provider indicated concern for the condition, divided by the number of service members who screened positive and provider indicated concern for the condition, multiplied by 100.

- Combined groups with no referrals (Column 10): service members who screened positive and provider indicated concern for condition but were not referred.

- Percentage of combined groups with no referrals (Column 11): service members who screened positive and provider indicated concern but were not referred, divided by the number of service members who screened positive and provider indicated concern, multiplied by 100.

- Combined group under care (Column 12): number of service members who screened positive and provider indicated concern for the behavioral health condition, but are already under care.

- Percentage under care (Column 13): combined group under care divided by the number service members who screened positive and provider indicated concern for the condition, multiplied by 100.

Table 2 Interpretation
- Number of service members screened (Column 3): the number of service members with the most recent PDHRA form that was provider certified in the report month.

- Positive screen (Column 4): represents the number of service members that met the case definition of a positive screen for TBI.

- Percentage of total with positive screens (Column 5): this is the number of positive screens for TBI, divided by the number of service members screened, multiplied by 100.
- Positive screen (Column 6): represents the number of service members that met the case definition of a positive screen for persistent TBI.

- Percentage of total with positive persistent screens (Column 7): this is the number of positive screens for persistent TBI, divided by the number of service members screened, multiplied by 100.

- Positive screen and provider concern (Column 8): the number of service members that screened positive and provider indicated concern for persistent TBI.

- Percentage of positive screen and provider concern (Column 9): the number of positive persistent TBI screens and provider concern, divided by the number of service members that screened positive for persistent TBI, multiplied by 100.

- Number of positive persistent TBI screens and provider concerns with a referral (Column 10): referrals among those who screened positive and provider indicated concern for persistent TBI.

- Percentage of referrals (Column 11): referrals among those who screened positive and provider indicated concern for persistent TBI, divided by the number of service members who screened positive and provider indicated concern for persistent TBI, multiplied by 100.

- Combined groups with no referrals (Column 12): service members who screened positive and provider indicated concern for persistent TBI but were not referred.

- Percentage of combined groups with no referrals (Column 13): service members who screened positive and provider indicated concern but were not referred, divided by the number of service members who screened positive and provider indicated concern, multiplied by 100.

**Table 5 Interpretation**

- Number of service members screened (Column 3): the number of service members with the most recent PDHRA form that was provider certified in the report month.

- Positive screen (Column 4): represents the number of service members that met the case definition of a positive screen for suicide/homicide risk.

- Percentage of total with positive screens (Column 5): this is the number of positive screens for suicide/homicide risk, divided by the number of service members screened, multiplied by 100.