

COMMANDERS' RISK MITIGATION DASHBOARD

User Training 2024

User Training Agenda

- Welcome
- Project Summary
- Data
- Feedback History
- Demonstration
- User Guide Review
 - $\,\circ\,$ Section 1: Introduction
 - $\,\circ\,$ Section 2: User Access
 - $\,\circ\,$ Section 3: CRMD Overview
 - o Section 5: User Feedback
 - $\circ\,$ Section 6: Help Desk
- Q & A



Commanders' Risk Mitigation Dashboard Summary as of 14 FEB 2024



Navy Cohort: 424k Sailors

17M+ rows of data (Oct 2016 to present)

Current Stats





6 predictive models





100+ users



Current Outcomes Definitions (6):

- Drug and Alcohol Incidents: Instances where a Sailor violated the Navy's zero-tolerance of drug or alcohol abuse, including positive urinalysis results and DUI/DWI, as captured in the Navy's Alcohol and Drug Management Information System (ADMITS)
- Suicide: Includes instances of self-harm, suicidal ideation, suicide attempt, or suicide completion as recorded in the Department of Defense Suicide Event Report (DoDSER)
- Sexual Assault Victim and Subject: Incident where an active duty or activated Navy Reservist was either the victim or perpetrator of a sexual assault (SA), as identified from the Defense Sexual Assault Incident Database (DSAID)
- Sexual Harassment: Instance of a sexual harassment case as recorded in the Navy's Sexual Harassment/Equal Opportunity system (SH/EO)



- Administratively collected data related to demographics, service history, and medical and health data are leveraged to generate over 150 possible predictors
- Over 6,000 destructive behavior events are used to train 6 predictive models
- Pooled logistic regression is used to predict the probability of each outcome occurring for a given Sailor and month. These predicted probabilities are aggregated to the UIC level
- Quarterly predicted risk scores and colorcoding comparisons to Navy-wide and peer group averages, respectively, are displayed on the dashboard for commanders to better understand the relative risk for their unit
- Risk scores are provided for the current quarter, three historic quarters, and one future quarter



- **ROC AUC:** Receiver operator characteristic (ROC) curve is a plot of the true positive rate versus false positive rate at all classification thresholds. The area under the curve (AUC) has values between 0 and 1, where values close to 1 indicate better discernment between classes. Standard: **0.7 or above**, depending on use case
- Balanced Accuracy: Average of the true positive rate (sensitivity) and true negative rate (specificity)

Sprint 74, Model Performance Metrics

| Outcome | ROC AUC | Balanced Accuracy |
|------------|---------|-------------------|
| ALCOHOL | 0.758 | 0.705 |
| DRUG | 0.889 | 0.796 |
| SA SUBJECT | 0.767 | 0.712 |
| SA VICTIM | 0.907 | 0.836 |
| SUICIDE | 0.851 | 0.774 |
| SEX HARR | 0.835 | 0.772 |

CRMD provides commanders with improved situational awareness and insights into their unit's risk for six destructive behaviors. CRMD is operated out of the PMW 240 program office and is included as part of COE 2.0.



Data Native to the ADE



As of 8 FEB 2024

| CRMD Tables | Data in Schema | Periodicity |
|----------------------------|----------------|--|
| AQD_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| ASVAB_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| EDUCATION_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| EVAL_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| LIMDU_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| MRRS_DEPLOYMENT_FLAG_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| OFFICER_DESIGNATOR_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| PERSON_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| PFA_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| RANK_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| SERVICE_DATA_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| UIC_INFO_VW | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| WAIVER_DATA_VW | FY17-Current | Daily snapshots starting Jan 17 |
| DEPLOYMENT_DATA_MRRS_VW | FY17-Current | Start/end dates from FY17; Daily snapshots Jun 21-Current |

Data to be viewed directly from SSOT - Current data status is based on periodicity of SSOT sources



Shows Data from MyNavy HR



Data External to the ADE



As of 8 FEB 2024

| CRMD Tables | Data in Schema | Periodicity |
|---|-----------------|-------------|
| PERIODIC HEALTH ASSESSMENT | FY17-February24 | Monthly |
| DEPT OF DEFENSE SUICIDE EVENT REPORT | FY17-December23 | Monthly |
| PHARMACY DETAIL TRANSACTION SERVICE | FY17-December23 | Monthly |
| STANDARD INPATIENT DATA RECORD | FY17-December23 | Monthly |
| TRICARE ENCOUNTER DATA INSTITUTIONAL | FY17-December23 | Monthly |
| TRICARE ENCOUNTER DATA – NON-INSTITUTIONAL | FY17-December23 | Monthly |
| MEDICAL DATA REPOSITORY CLINICAL DATA REPOSITORY VITALS (DHA) | FY17-December23 | Monthly |
| COMPREHENSIVE AMBULATORY/PROFESSIONAL ENCOUNTER RECORD | FY17-December23 | Monthly |
| THEATER MEDICAL DATA STORE | FY17-December23 | Monthly |
| NAVY ALCOHOL DRUG MISUSE PREVENTION CONTROL SYSTEM | 2005-January24 | As Required |
| DEFENSE CASUALTY INCIDENT PERSONNEL SYSTEM | FY17-December23 | Monthly |
| DEFENSE SEXUAL ASSAULT INCIDENT DATABASE CASE | FY17-December23 | Monthly |
| DEFENSE SEXUAL ASSAULT INCIDENT DATABASE SUBJECT DATA | FY17-December23 | Monthly |
| DEFENSE SEXUAL ASSAULT INCIDENT DATABASE VICTIM | FY17-December23 | Monthly |
| SEXUAL HARASSMENT EQUAL OPPORTUNITY | FY17-December23 | Monthly |
| MEDICAL HEALTH SYSTEM GENESIS ENCOUNTER | FY17-December23 | Monthly |
| MEDICAL HEALTH SYSTEM GENESIS ADMISSIONS | FY17-December23 | Monthly |
| HEALTH OF THE FORCE | FY21 | Annually |

Legend

Sources received o/a midmonth and due to ATO requirement to convert to Test Data (de-identified) before ingestion; schema updates take 1-2 weeks after data receipt







Prototype Phase (Feb 2018 – 2020)



Figure 1: CRMD Initial Working Prototype Main Screen

Overview

- Working prototype developed with simulated data (May 2018)
- Navy data and UIC hierarchy implemented in prototype (July 2019)
- 7 command visits
- 17 sessions with Navy staff from various commands, departments, and divisions (all echelons, including active command triads)
- 4 briefings and demos with Navy senior leadership

Feedback Topics (Ongoing Discussions)

- Appropriate use of dashboard information
- Training on interpreting data and graphics
- Data quality and timeliness, and confidence in model results
- Connectivity issues while deployed
- Inclusion of community-specific and command-specific data
- Balancing microclimate understanding vs. risk of inadvertent ID
- How/when risk turns to resiliency with proper treatment
- Known correlations (e.g., effects of CO/XO changes, current job experience, command-specific experiences, length of time in unit)
- Impacts of pre-Navy trauma and in-service trauma
- Dashboard too complex/difficult to understand



RDT&E Pilot Phase (Jan-Oct 2021)



Figure 2: CRMD RDT&E Pilot Phase Main Screen

Overview

- 6 six-week pilot rounds, 28 training sessions facilitated
- 96 participants (5 echelons; 36 command types; 65 units; 27 roles)

Feedback Summary

Approved of:

• Dashboard navigation, heat maps, and graphs showing data and risk-score trends over time and rank group breakdowns

Recommended:

- Include data sources, data accuracy, and self-report data details
- Add definitions for physical conditions and mental health data
- Add DEOCS, Non-Judicial Punishments (NJPs), and other criminal events, plus manning data (e.g., fit/fill, OPTEMPO, or duty type)
- Add drill-down capability to specific contributing factors
- Streamline design (too complex as is)
- Add risk scores calculations and calibrations, and Navy averages
- Remove deployment screen, glossary screen, and FITREP data
- Improve labeling, formatting, and the tooltip features

Concerned About:

 Potential for punitive use, need user and leadership training, need commanders' playbook w/intervention strategies, the UIC hierarchy structure being used, upper echelon display needs, ability to meet rapid operational changes that affect crew morale

OT&E Pilot Phase (Jun-Oct 2022)



Figure 3: CRMD OT&E Pilot Phase Main Screen

Overview

- Vertical Component: The 15 UICs of CTF-70, PACFLT
- Horizontal Component: 10 UICs from USFF (variety of command platforms and types)
- Plus, 5 commands from previous RDT&E pilot invited
- 109 total user accounts created
- 9 training sessions + recorded training session available to all

Feedback Summary

- Improve bandwidth utilization; this issue delayed loading of the dashboard screens and caused issues for deployed units
- Make displays at the Immediate Superior in Command (ISIC) and Selected Reserve (SELRES) levels available
- Continue to improve interpretability of the contributing factors
- Explain why a specific factor affects risk
- Provide insights into risk increases, and more actionable risk factors
- Add recommendations based on the risk determinations
- Provide insights on subpopulations at risk
- Provide ISICs and command COs with comparative assessments to like units
- Add ability to view multiple (or all) units on a single display
- Flag the unit(s) at greater risk in "red" across any given task force





Dashboard Demonstration







User Guide Review







WELCOME

The dashboard is hosted in the Navy's Authoritative Data Environment (ADE).

Designated users can access the dashboard via CAC authentication to review their UIC's risk scores and contributing factors information.

ACCESS SUPPORT

CRMD access issues can be directed to:

ADE_HELPDESK_SUPPORT@navy.mil

Please make the subject line, "CRMD Access: <your first and last name>, <Date you are submitting your request>." This will help us verify your access in a timely manner.





CRMD User Guide Review - Section 1 – Introduction





CURRENT STATE NOTES

- The current release of the CRMD is the **initial set of features** suitable to be fielded to an operational environment that provides value to the end user.
- The dashboard is still **evolving**, and we encourage users to provide feedback and recommendations for improvements on all aspects.
- Data is updated monthly. Additional data information is available on the CRMD Data Dictionary screen.
- Although individual information is not displayed on the dashboard, units with 10 or fewer members will not display predictive metrics in the dashboard. This is to protect the privacy of individual members in a unit.









- Personnel identified as members of an active command triad will be granted access automatically based on their assigned role.
- If additional crew members require access to the CRMD, please have them submit a request, along with their UIC and CO information, using this URL: <u>https://portalprod.ade.dc3n.navy.mil/contact_us_form?requestAccess=CRMD</u>.
- Additional details can be found in SOP CRMD Dashboard Access via ADE Portal v2.2 12 December 23 that was provided with the CRMD training materials.
- Once your access is enabled, the dashboard can be reached via this URL: <u>https://crmd.portalprod.ade.cloud.navy.mil.</u>







OBJECTIVES



- Address **counter-productive workplace (CWB) and destructive behaviors** that harm Sailors, impact mission effectiveness, contribute to unplanned losses, and increase administrative burden.
- Use existing Navy and DoD data to assess risk regarding CWB and destructive behaviors at a unit-level:
 - Leaders can easily view and track these areas of risk.
 - \circ $\;$ Determine where additional resources, training, and support is needed.
- Utilize a **unit-level decision support tool** (not for punitive use).
- Provide leaders with information and insights to **specific stressors.**
- Aid in **communication and planning** with their Command Resiliency Teams (CRTs) and upper echelon leadership.







What data is used for the CRMD?

Many data sources were initially acquired and analyzed to determine indicators and contributing factors for risk of destructive behaviors and events.

• The following data sources are currently used in the risk models for the CRMD:

| MyNavy HR - AQD_DATA | Pharmacy Detail Transaction Service | |
|-------------------------------------|--|--|
| MyNavy HR - ASVAB_DATA | Standard Inpatient Data Record | |
| MyNavy HR - EDUCATION_DATA | Tricare Encounter Data Institutional | |
| MyNavy HR - EVAL_DATA | Tricare Encounter Data Non-Institutional | |
| MyNavy HR - LIMDU_DATA | Medical Data Repository Clinical Data Reporsitory Vitals (DHA) | |
| MyNavy HR - MRRS_DEPLOYMENT_FLAG | Comprehensive Ambulatory/Professional Encounter Record | |
| MyNavy HR - OFFICER_DESIGNATOR_DATA | Theater Medical Data Store | |
| MyNavy HR - PERSON_DATA | Navy Alcohol Drug Misuse Prevention Control System | |
| MyNavy HR - PFA_DATA | Defense Casualty Incident Personnel System | |
| MyNavy HR - RANK_DATA | Defense Sexual Assault Incident Database Case | |
| MyNavy HR - SERVICE_DATA | Defense Sexual Assault Incident Database Subject Data | |
| MyNavy HR - UIC_INFO | Defense Sexual Assault Incident Database Victim Data | |
| MyNavy HR - WAIVER_DATA | Sexual Harassment Equal Opportunity | |
| MyNavy HR - DEPLOYMENT_DATA_MRRS | Medical Health System Genesis Encounter | |
| Periodic Health Assessment | Medical Health System Genesis Admissions | |
| DoD Suicide Event Report | Health of the Force | |







DATA (CONT.)



How often is the data refreshed?

- Data changes can vary widely depending on the unique data source.
- Data sources feeding the models are updated monthly.
- Analytic risk models are retrained quarterly.

If you have any questions about the data, its origins, or the analytics methodology, please reach out to the CRMD team via email at <u>CRMD@navy.mil</u>.



CRMD User Guide Review - Section 3: Overview



WHAT IS DISPLAYED IN THE CRMD?



- Displays an **overall risk score** and **category risk scores** for an individual unit on the main screen with the ability to drill down into the different categories to access information on the contributing factors to those risk categories.
- Navy peer group and Navy overall risk scores are also provided for comparison purposes.

WHAT IS THE RISK SCORE?



- Measures the risk of a **destructive behavior/event in the next quarter** based on individuals' current contributing factors.
- The score is generated from **predictive models** that use machine learning and then are transformed and converted into z-scores to estimate individual risk of a destructive behavior/event. These individual risks are then aggregated at the unit level to produce a UIC-level risk score. Risk scores are calibrated so that the Navy average is close to 3, and high-/low-risk UICs are identified comparatively.
- The risk score is also back-dropped with the stoplight color theme of red, amber, or green to highlight the risk level.



Peer group assignments inform these color backdrops.

CRMD User Guide Review - Section 3: Overview

RISK SCORE DETAILS



What is the overall risk score?

• Average of the risk category scores for the six destructive behaviors/events for the unit.

What are the category risk scores?

- Risk of six destructive behaviors/events categories is examined in the CRMD:
 - 1) Alcohol Abuse Probability of a flag for an alcohol event (e.g., DUI).
 - 2) Drug Use Probability of a positive drug test.
 - 3) Suicide Probability of suicidal thought, attempt, or completion.
 - 4) Sexual Harassment Probability of sexual harassment occurring in the unit.
 - 5) Sexual Assault Victim Probability of having a sexual assault case where the individual is listed as the assault victim.
 - 6) Sexual Assault Subject Probability of having a sexual assault case where the individual is listed as the assault subject.







WHAT ARE THE NAVY PEER GROUP RISK SCORES?

- Peer groups defined provide a more comprehensive view of relative risk, as some ship types/sizes are inherently at higher risk than others.
- Each unit is assigned to a peer group based on whether it is an afloat or shore command, the platform type, and the number of sailors currently aligned and are as follows:

AFLOAT:

- Extra Small (10-49 sailors)
- Small (50-149 sailors)
- Medium (150-299 sailors)
- Large (300-799 sailors)
- Extra Large (800-1199 sailors)
- Extra Extra Large (1200-3200+ sailors)

SHORE:

- Small (10-49 sailors)
- Medium (50-149 sailors)
- Large (150-3200+ sailors)







NAVY RISK SCORES

What are the Navy peer group risk scores? (cont.)

- In addition, the dynamic coloring has been adjusted so that it is relative to the mean risk score for the unit's specific peer group:
 - **Green** = Commands that fall at or below the mean risk score for their peer group.
 - Amber = Commands that fall within one standard deviation above the mean for their peer group.
 - **Red** = Commands that fall above one standard deviation above the mean for their peer group.

What are the Navy-wide average risk scores?

- These provide visibility to the average risk Navy-wide and includes all units of every type and size and is calculated on the individual sailor-level.
- All unit-level risk scores and peer group risk scores have been calibrated to reflect the level of risk relative to the overall Navy average.







WHAT ARE THE CONTRIBUTING FACTORS FOR THE RISK CATEGORIES?

- This is a **quarter-by-quarter display of demographic, service-related, or health-related factors** that most contribute to the predicted probability of destructive behaviors/events occurring within the individual unit.
 - The lists also include aggregated factor constructs such as "Mental Health Diagnoses" as opposed to individual factors like "Diagnosed With PTSD".
- Specific factors/factor constructs for each quarter can be viewed by selecting the tile above each quarter's risk score. The selected quarter tile will display a black background with white font. This will show a bar graph of the top 5 risk factors/factor constructs that either increase or decrease risk for that quarter along with their specific Shapley value.
- **Shapley values** are used to measure the impact of a feature on the model output.
 - They provide insight on both the magnitude (how important a feature is in predicting risk) as well as direction (does the presence of this feature increase or decrease risk).
 - Shapley values take into account how the model is weighting each feature to predict risk, as well as the number of Sailors in the command presenting this feature.







WHAT ARE THE CONTRIBUTING FACTORS FOR THE RISK CATEGORIES? (cont.)

- These factors are relevant to the **individual unit**, relative to the unit's peer group, and specific to the risk category selected.
- The **past and future factors** may allow for a better understanding of which contributing factors changed for the individual unit and unit risk increases or decreases over time.
- The present quarter may include **predictive elements**, as users may be accessing the dashboard at periods other than the beginning or end of the month.
- Data is updated monthly, so risk factors seen in January may change in February, and through each month of a quarter users may see different contributing factors.







WHAT ARE THE ACTION PLANS?



- Action Plans provide Navy-approved recommendations to address and reduce the risk associated with the category's destructive behavior or event.
- Each Action Plan includes links to other information and resources available to commands to support their crew members in these areas.
- Action Plans are accessed by clicking on the dark grey "Action Plan" button on the right side each risk category screen which will open a PDF in a separate browser window.

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WHAT IS THE DATA DICTIONARY?

- The CRMD Data Dictionary screen consists of **four tabs** each providing a different type of information related to the data used to generate risk scores and populate the dashboard.
- Please note that this screen is a living page and will be updated as new data is added to the dashboard and machine learning models.
- The information provided by each tab includes:
 - **1. Data Constructs** Identifies the compilations of individual features used in model training combined for dashboard display to improve interpretability.
 - 2. Individual Features Identifies standalone data elements used for model training.
 - **3.** Features Controlled For Identifies features that were controlled for in the models but do not appear in dashboard display.
 - **4. Data Sources** Identifies a list of data sources utilized to train the models along with the date range of the data source and the data refresh periodicity.



CRMD User Guide Review - Section 3: Overview



HOW DOES LEADERSHIP USE THE INFORMATION IN THE DASHBOARD?

- A unit's risk factors can vary based on the type of unit, the mission assigned, the region the unit is based or deployed in, and other unit-specific details; however, the CRMD risk scores for a unit are a good starting place for leaders to begin to identify data-based areas of contributing factors that lead to risk for their unit.
- Leaders view the dashboard screens for risk scores, trends, and contributing factors to identify areas of concern or escalation, and to compare to the Navy peer group and Navy average risk scores.
- The risk assessment information provided by the CRMD can be used in combination with additional insights and personal observations from CRT members and khaki leadership to help determine intervention strategies and to plan future support and training efforts.









FEEDBACK OPPORTUNITIES



- As mentioned earlier, the dashboard is still **evolving**, and we encourage users to provide feedback and recommendations for improvements on all aspects.
- Please share what your command's thoughts about any of the following aspects by emailing the CRMD team directly at <u>CRMD@us.navy.mil</u>
 - $\circ~$ The features and format of each of the screens
 - The general design of the data displays and screens
 - $\circ~$ The usefulness of the data provided
 - $\circ~$ The interpretability of the risk scores and data
 - $\circ~$ Suggestions for future options







WHAT TO DO IF YOU HAVE TROUBLE ACCESSING THE CRMD:

- If you are experiencing any issues accessing the dashboard, please follow the steps below to troubleshoot.
 - Ensure you are only using Google Chrome to access the Dashboard.
 - Clear your Cache and cookies following the steps below:
 - On your computer, open Google Chrome.
 - At the top right, click More.
 - Click More tools > Clear browsing data.
 - At the top, choose a time range. To delete everything, select All time.
 - Next to "Cookies and other site data" and "Cached images and files," check the boxes.
 - Click Clear data.
 - Change your proxy/VPN if you are connected via NMCI.
- If you are still experiencing issues after performing the steps provided, please contact the ADE Help Desk at ADE_helpdesk_support@navy.mil.
- Please make the subject line, "CRMD Access: <your first and last name>, <Date you are submitting your request>".
 Additionally, any details you can provide, i.e., screenshots, error messages, etc. would be greatly appreciated in order for us to assist as seamlessly as possible.







Questions?















Home Data Dictionary

COMMANDERS' RISK

The CRMD provides a high-level overview of risk within your unit. This information can help you uncover potential stressors and determine where additional resources, training, and/or support is needed. Please note that units with 10 or less members will not be able to access the predictive metrics available in this dashboard to protect the privacy of individual members in a unit.

For further assistance or clarification please contact us by email at: ADE_HELPDESK_SUPPORT@navy.mil

UIC To get started, please select your unit (UIC):SAMPLE 5 99995



The Landing/Home Page provides:

- A brief overview of the CRMD
- The Helpdesk email address
- A dropdown menu to select your unit for viewing





CRMD User Guide Review - Section 4: Navigation

Risk Category Scores for UIC 99995:

of the destructive outcomes in the next quarter. (CLICK THE TILES BELOW TO EXPLORE MORE)

CRMD currently evaluates risk for six categories of destructive behavior

events: drug use, alcohol abuse, suicidal behaviors, sexual harassment, and sexual assault (both victim and subject). The risk scores reflect unit-level risk





UIC AVERAGE RISK SCORE



PEER RISK SCORE

2.65

NAVY OVERALL RISK

2.93

Unit Complement

JUNIOR ENLISTED: 1,375

SENIOR ENLISTED: 1,100

OFFICERS: 275

TOTAL: 2,750

| ALCOHOL RISK | DRUG RISK | |
|------------------------|------------------------|--|
| 3.16 UIC Risk Score | 1.00 UIC Risk Score | |
| SUICIDE RISK | SEXUAL HARASSMENT | |
| 2.35 UIC Risk Score | 3.35 UIC Risk Score | |
| SEXUAL ASSAULT VICTIM | SEXUAL ASSAULT SUBJECT | |
| 3.56 UIC Risk Score | 3.60 UIC Risk Score | |

The Main Screen provides the following information relevant to an individual unit:

HOME

CRMD

- Overall risk scores for the unit, Navy peer group, and Navy-wide average
- Unit complement breakdown
- Unit-level risk category scores for Alcohol Abuse Risk, Drug Use Risk, Suicide Risk, Sexual Harassment Risk, Sexual Assault Victim Risk, and Sexual Assault Subject Risk
- Drilldown capability to additional insights for each risk category by clicking on the risk category score tile



/Ivnavyhi

CRMD User Guide Review - Section 4: Navigation





Risk Category Drilldown View:

- Each risk category has a distinct, unitspecific drilldown view available. To access this view, click on the risk category score tile on the Main Screen
- There are **separate screens for each of these risk categories**: Alcohol Abuse Risk, Drug Use Risk, Suicide Risk, Sexual Harassment Risk, Sexual Assault Victim Risk, and Sexual Assault Subject Risk
- Each risk category view features the following category-specific information for the unit:
 - o Unit-level Risk Score
 - Navy Peer Group Risk Score
 - Navy Average Risk Score
 - Contributing Factors lists with Shapley values for past and predicted quarters
 - o Link to Action Plans





 Home
 Overview
 Suicide
 Alcohol
 Drugs
 SH
 SA Victim
 SA Subject
 Data Dictionary

Data Dictionary

Please utilize the buttons below to select your dictionary of interest. The **Data Constructs** dictionary identifies the compilations of individual features used in model training, combined for dashboard display to improve interpretability. Please note that this is a **living page** and will be updated as new data is added to the dashboard and machine learning models.

Last Updated: September 14, 2023

| Data Constru | icts | Individual Features | Features Controlled For | Data Sources |
|---|-----------------------|---|---|---|
| Behavioral Health Concerns | PHA completed by t | he Sailor; Sailor self-reported drinking alcoho | elated illness(es); a health provider documented one or I more than 14 times a week; Sailor's depression score ad by the Sailor in the most recent completed PHA; Sai | on the PHQ-8 Depression Assessment Scale |
| Completed Destructive Behavior Trainings | Sailor has complete | d and passed trainings related to destructive | behaviors | |
| Less Crew Experience | Sailor has been in a | ctive service for 60 months or less; is rank E1 | -E5; has served in less than 2 UICs; or has served in t | heir current UIC for 12 months or less |
| Medical Referrals | A healthcare provide | er recommended one or more medical referra | I(s) for the Sailor in the most recent PHA completed | |
| Mental Health Medical Encounters | Number of medical | encounters for a mental health condition since | e October 2016 | |
| More Crew Experience | | ctive service for over 60 months; is rank E6+, ership training courses | CWO, or O; has served in 2 or more UICs; has served | I in their current UIC for over 12 months; or |
| Off-Track Career Progression | Sailor has an individ | ual performance trait average of 1 or 2; or ha | s received a disciplinary waiver or a negative promotion | on or retention recommendation |
| On-Track Career Progression | Sailor has an individ | ual performance trait average of 3 or above; | has not received a disciplinary waiver or a negative pr | omotion or retention recommendation |
| Other Medical Indicators | | | f physical pain experience by the Sailor in the most rec nters while deployed; Sailor contracted a disease or su | |
| Prescription Drug Use | Sailor has a history | of being prescribed one or more medication(s | i) to address health concerns since October 2016 | |

Data Dictionary Screen:

- The CRMD Data Dictionary screen consists of **four tabs** each providing a different type of information related to the data used to generate risk scores and populate the dashboard.
- The Data Constructs tab identifies the compilations of individual features used in model training combined for dashboard display to improve interpretability.







| Home Ove | erview Suicide Alcohol Drugs SH SA Victim SA Subject Data Dictionary |
|--|--|
| Data Diction Please utilize the buttons Please note that this is a l ast Updated: September | below to select your dictionary of interest. The Individual Features dictionary identifies standalone data elements used for model training. iving page and will be updated as new data is added to the dashboard and machine learning models. |
| Data Constru | ucts Individual Features Features Controlled For Data Sources |
| Active Duty | Sailor is cleared for active duty based on evaluation records |
| Age | Sailor's current age (Less Than 21, 21 to 23, 24 to 26, 27 to 30, 31 to 36, or Greater Than 36) |
| Alcohol Use (Medical Record: Self Report) | Sailor's typical alcohol consumption as self-reported to a healthcare provider during a medical encounter |
| ASVAB AFQT Score | Sailor's Armed Services Vocational Aptitude Battery Armed Forces Qualification test score. Low: Scores below 35; Medium: Scores between 35 and 70; High: Scores of 70 or higher |
| Marital Status, Dependent | Sailor's marital status (Single, Married, Divorced, Widowed) and whether they have dependents (Has Dependents, No Dependents). Marital status or dependent information may be excluded from the feature name for cases in which this data was missing or unavailable for the Sailor. |
| Sex | Sex of the Sailor (M/F) based on personnel records |
| Tobacco Use (Medical Record: Self Report) | Sailor's tobacco usage (yes/no) as self-reported to a healthcare provider during a medical encounter |

Data Dictionary Screen:

 The Individual Features tab identifies standalone data elements used for model training.







| ata Dictionary ase utilize the buttons below to select your dictionary of interest. The Features Controlled For dictionary identifies features that were controlled for in the r not appear in dashboard display. Please note that this is a living page and will be updated as new data is added to the dashboard and machine learning m t Updated: September 14, 2023 Data Constructs Individual Features Features Data Sources | | | |
|--|---|--|--|
| Data Constructs Individual Features Features Controlled For Data Sources | | | |
| | | | |
| rrently in Involuntary Extension Sailor is currently in involutary extension of service | | | |
| In ths Since First/Last Alcohol Medical Number of months past since the first or most recent alcohol-related medical encounter. An N/A value means there is no record of this beta the Sailor. Positive values are included in the Behavioral Health Concerns construct. In ths Since Last Number of months past since the first or most recent drug related medical encounter. An N/A value means there is no record of this behavioral Health Concerns construct. In the Since Last Value to the Concerns Construct Number of months past since the first or most recent drug related medical encounter. An N/A value means there is no record of this behavioral Health Concerns construct. In the Since Last Value to the Concerns Construct Number of months elapsed since the last harassment (sexual or nonsexual) incident recorded in the Behavioral Health Concerns construct. In the Since Last Suicide-Related Number of months elapsed since the suicide-related incident recorded in the Behavioral Health Concerns construct. Number of months elapsed since the suicide-related incident recorded in the Behavioral Health Concerns construct. Number of months elapsed since the suicide-related incident recorded in the Behavioral Health Concerns construct. | vior for the eans there | | |
| ident - N/A behavior for the command. Positive values are included in the Behavioral Health Concerns construct. | | | |
| nths To EAOS Number of months until end of active obligated service date (Less Than 7, 7 to 12, 13 to 24, 25 to 36, 37 to 48, 49 to 60, Greater Than 60 |) | | |
| cupation Code Sailor's Navy occupational career category | | | |
| cent Drug/Alcohol Incident Recorded Sailor was recently involved in at least one alcohol or drug abuse event as recorded in ADMITS | Sailor was recently involved in at least one alcohol or drug abuse event as recorded in ADMITS | | |
| cent Sexual Assault Recorded SAID, Subject) Sailor was recently involved in at least one sexual assault perpetration event as recorded in DSAID | Sailor was recently involved in at least one sexual assault perpetration event as recorded in DSAID | | |
| cent Sexual Assault Recorded SAID, Victim) Sailor was recently involved in at least one sexual assault victimization event as recorded in DSAID | Sailor was recently involved in at least one sexual assault victimization event as recorded in DSAID | | |
| cont Sexual Harassment Incident Sorded (SH/EO) Sailor was recently involved in at least one sexual harassment event as recorded in SH/EO | Sailor was recently involved in at least one sexual harassment event as recorded in SH/EO | | |
| Cont Suicidal Behavior Recorded Sailor was recently involved in at least one suicidal behavior event as recorded in DODSER | Sailor was recently involved in at least one suicidal behavior event as recorded in DODSER | | |
| bre/Afloat Command Whether the UIC the Sailor is currently serving in is primarily a Shore or Afloat command based on assignment codes | Whether the UIC the Sailor is currently serving in is primarily a Shore or Afloat command based on assignment codes | | |
| al Number of Medical Visits (Low/ dium) Total number of medical encounters (e.g., visits, inpatient stays, battle injury, non-battle injury) a Sailor has had in the past year. The Low Medium classes are not displayed in the dashboard; however, the High class is captured within the Other Medical Indicators construct. | Total number of medical encounters (e.g., visits, inpatient stays, battle injury, non-battle injury) a Sailor has had in the past year. The Low and Medium classes are not displayed in the dashboard; however, the High class is captured within the Other Medical Indicators construct. | | |
| al UIC Harassment Incidents - N/A Number of harassment (sexual or non-sexual) complaints on record for the Sailor's current UIC. An N/A value means there is no record or behavior for the command. Positive values are included in the Behavioral Health Concerns construct. | l this | | |
| Number of quicide-related incidents on record for the Sailor's gurrent LIC. An N/A value means there is no record of this behavior for the | command. | | |
| al UIC Suicide Related Incidents - N/A Positive values are included in the Behavioral Health Concerns construct. | | | |
| | | | |

Data Dictionary Screen:

 The Features Controlled For tab identifies features that were controlled for in the models but do not appear in dashboard display.







 Home
 Overview
 Suicide
 Alcohol
 Drugs
 SH
 SA Victim
 SA Subject
 Data Dictionary

Data Dictionary

Please utilize the buttons below to select your dictionary of interest. The **Data Sources** dictionary identifies a list of data sources utilized to train the models. Please note that this is a **living page** and will be updated as new data is added to the dashboard and machine learning models.

Last Updated: September 14, 2023

| Data Construct Individual Features | | Features Controlled For | | Data Sources | |
|---|--------------------------------|-------------------------|-----------------|--|--|
| (ADE) NAVYY_MEMBER_ASSIGNMENTS_VIE | W | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 29 | |
| (ADE) NAVYY_MEMBER_ASVAB_VIEW | | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 20 | |
| (ADE) NAVYY_MEMBER_DESIGNATOR_VIEW | 1 | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 23 | |
| (ADE) NAVYY_MEMBER_EVALS_VIEW | | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 21 | |
| (ADE) NAVYY_MEMBER_INJURY_VIEW | | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 22 | |
| (ADE) NAVYY_MEMBER_PERSON_VIEW | | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 24 | |
| (ADE) NAVYY_MEMBER_RANK_VIEW | | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 25 | |
| (ADE) NAVYY_MEMBER_SERVICE_VIEW | | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 26 | |
| (ADE) NAVYY_MEMBER_WAIVERS_VIEW | | FY17-Current | Daily snapshots | starting Jan 17 | |
| (ADE) NAVYY_PERSON_TRAINING_VIEW | | CY11-Current | Monthly snapsh | ots 2011-19; Daily snapshots starting Jan 28 | |
| (External) COMPREHENSIVE AMBULATORY/ | PROFESSIONAL ENCOUNTER RECO | FY17-July 23 | Monthly | | |
| (External) DEFENSE SEXUAL ASSAULT INCID | DENT DATABASE CASE | FY17-August 23 | Monthly | | |
| (External) DEFENSE SEXUAL ASSAULT INCID | DENT DATABASE SUBJECT DATA | FY17-August 23 | Monthly | | |
| (External) DEFENSE SEXUAL ASSAULT INCID | DENT DATABASE VICTIM | FY17-August 23 | Monthly | | |
| (External) DEPT OF DEFENSE SUICIDE EVEN | TREPORT | FY17-July 23 | Monthly | | |
| (External) MEDICAL DATA REPOSITORY CLIN | ICAL DATA REPOSITORY VITALS (D | FY17-June 23 | Monthly | | |
| (External) MEDICAL HEALTH SYSTEM GENES | SIS ADMISSIONS | FY17-July 23 | Monthly | | |
| (External) MEDICAL HEALTH SYSTEM GENES | SIS ENCOUNTER | FY17-July 23 | Monthly | | |
| (External) NAVY ALCOHOL DRUG MISUSE PR | REVENTION CONTROL SYSTEM | FY17-August 22 | As Required | | |
| (External) PERIODIC HEALTH ASSESSMENT | | FY17-July 23 | Monthly | | |
| (External) PHARMACY DETAIL TRANSACTION | N SERVICE | FY17-July 23 | Monthly | | |
| (External) SEXUAL HARASSMENT EQUAL OP | PORTUNITY | FY17-July 23 | Monthly | | |
| (External) STANDARD INPATIENT DATA REC | ORD | FY17-March 23 | Monthly | | |
| (External) THEATER MEDICAL DATA STORE | | FY17-June 23 | Monthly | | |
| (External) TRICARE ENCOUNTER DATA - NON | NINSTITUTIONAL | FY17-June 23 | Monthly | | |
| (External) TRICARE ENCOUNTER DATA INST | ITUTIONAL | FY17-June 23 | Monthly | | |

Data Dictionary Screen:

 The Data Sources tab identifies a list of data sources utilized to train the models along with the date range of the data source and the data refresh periodicity.

