

# COMMANDERS' RISK MITIGATION DASHBOARD

# User Training 2025

# 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
  - Section 6: Help Desk
- Q & A



# Commanders' Risk Mitigation Dashboard Summary



Navy Cohort: 424k Sailors

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

#### **Current Stats**





destructive behavior events

6.000+





**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 101, Model Performance Metrics

Outcome	ROC AUC	Balanced Accuracy
ALCOHOL	0.771	0.703
DRUG	0.815	0.744
SA SUBJECT	0.752	0.699
SA VICTIM	0.888	0.822
SUICIDE	0.776	0.713
SEX HARR	0.759	0.694

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:

#### ADEHelpDesk@us.navy.mil

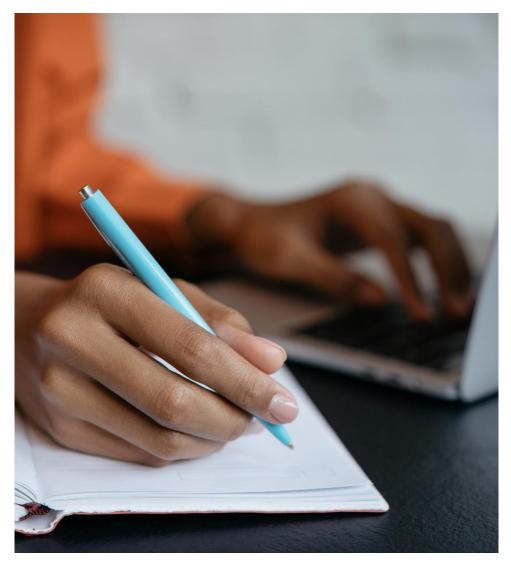
Please make the subject line, "CRMD Access: <your first and last name>, <Date you are submitting your request>." This will help us verify your access in a timely manner.





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 quarterly. 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.







## **NOTES FOR COMMAND LEADERS**

- CRMD provides unit-level risk of destructive behaviors; it is NOT to be used for punitive purposes.
- The majority (over 90%) of factors contributing to risk cannot be influenced by the command (e.g., age, time onboard, sex, marital status).
- It is not a negative reflection on command leadership to be a higher risk unit. Moving from higher to lower risk is not something commands can do by simply following a checklist.
  - Regardless, commands should be aware of when they have elevated risk and take the actions included in the related Action Plan to mitigate that risk.
- **Commands may designate additional appointees to have access to their CRMD**. For individual units, this endorsement must come from the CO or XO. For Echelon II-IV, Chief of Staff-level endorsement (or equivalent) is required.
  - An email template to designate this access is available for download under the quick links section of the CRMD home page and shown in Section 2. Information required to grant full access includes full name, government email address, DoD ID, and UIC(s).



# CRMD User Guide Review - Section 2: User Access



## **SECTION 2: USER ACCESS**



- Personnel identified as members of an active command triad will be granted access automatically based on their assigned role.
- **To designate additional appointees to have access to the CRMD** please use the following email template:

EMAIL TEMPLATE FOR REQUESTING CRMD ACCESS
TO: ADEHelpDesk@us.navy.mil
SUBJECT: CRMD Access Request
<b>BODY</b> : Please provide those listed below with CRMD access for [ <u>INSERT</u> <u>ORGANIZATION NAME</u> ] and all subordinate units (if applicable). Our UIC is [ <u>INSERT UIC</u> ]:
NAME: Last, First, MI
EMAIL:
DoD ID:
V/r,
(Please include official signature block)







**SECTION 2: USER ACCESS (CONT.)** 



- Note that the email template is provided as an example and is not required.
  - As long as all required information (i.e., full name, email, DoD ID, and UIC) is included, please feel free to provide in any format that best suits your needs.
  - Also, your DoD ID number is the 10-digit number located on the back of your Common Access Card (CAC).
- 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 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.



## **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.)

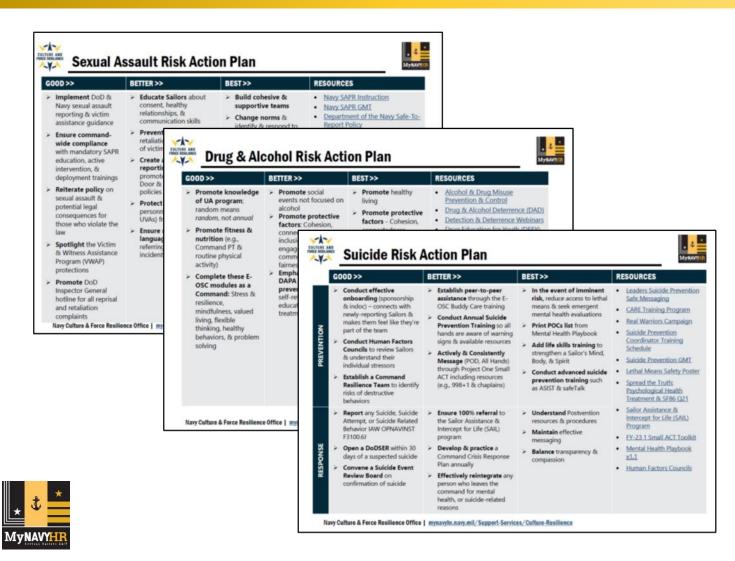
- These factors are relevant to the **individual unit**, relative to the unit's peer group, and specific to the risk category selected.
- The **past and future factors** may allow for a better understanding of which contributing factors changed for the individual unit and unit risk increases or decreases 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.







## 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.

23





# 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@navy.mil</u>
  - $\circ~$  The features and format of each of the screens
  - $\circ~$  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 <u>ADEHelpDesk@us.navy.mil</u>.
- 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?





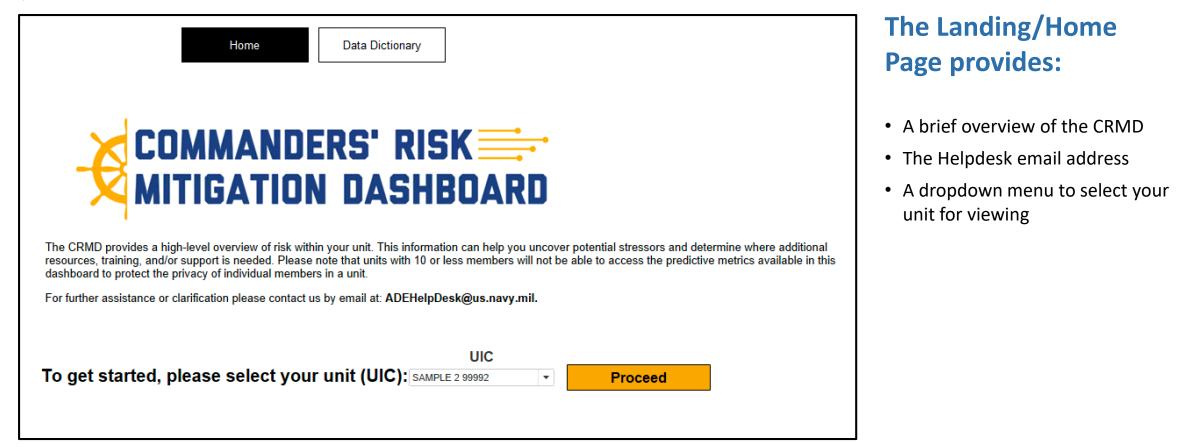
















# **CRMD User Guide Review - Section 4: Navigation**

**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	1.00
UIC Risk Score	UIC Risk Score
SUICIDE RISK	SEXUAL HARASSMENT
2.35	3.35
UIC Risk Score	UIC Risk Score
SEXUAL ASSAULT VICTIM	SEXUAL ASSAULT SUBJECT
3.56	3.60
UIC Risk Score	UIC Risk Score

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

HOME

CRMD

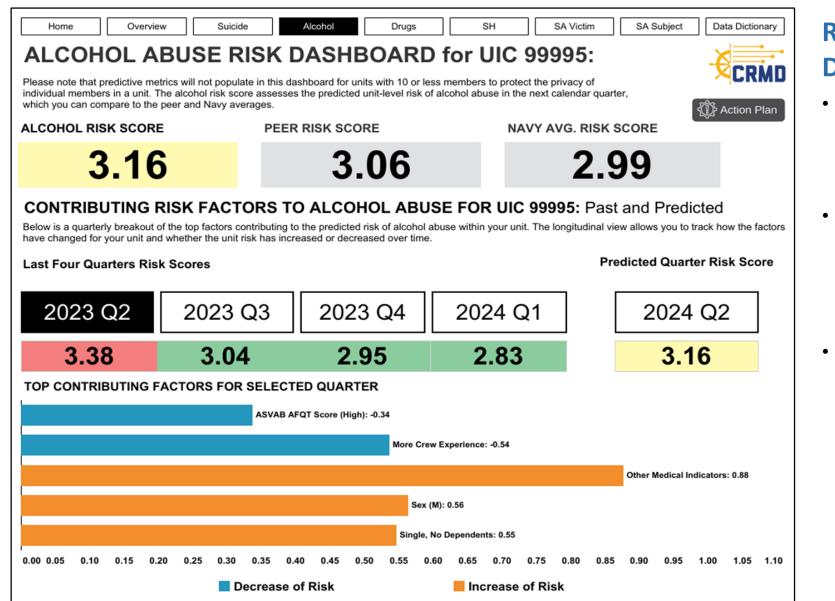
- Overall risk scores for the unit, Navy peer group, and Navy-wide average
- Unit complement breakdown
- Unit-level risk category scores for Alcohol Abuse Risk, Drug Use Risk, Suicide Risk, Sexual Harassment Risk, Sexual Assault Victim Risk, and Sexual Assault Subject Risk
- Drilldown capability to additional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



/IvNAVYHIE

# **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	the 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 ed by the Sailor in the most recent completed PHA; Sail	on the PHQ-8 Depression Assessment Scale
Completed Destructive Behavior Trainings	Sailor has complete	ed and passed trainings related to destructive	behaviors	
Less Crew Experience	Sailor has been in	active service for 60 months or less; is rank E1	I-E5; has served in less than 2 UICs; or has served in the	heir current UIC for 12 months or less
Medical Referrals	A healthcare provid	ler 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		active service for over 60 months; is rank E6+, dership training courses	CWO, or O; has served in 2 or more UICs; has served	in their current UIC for over 12 months; or
Off-Track Career Progression	Sailor has an indivi	dual performance trait average of 1 or 2; or ha	is received a disciplinary waiver or a negative promotio	n or retention recommendation
On-Track Career Progression	Sailor has an indivi	dual performance trait average of 3 or above;	has not received a disciplinary waiver or a negative pro	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	s) 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.







Data Dictiona	Alcohol Drugs SH SA Victim SA Subject Data Dictionary Data Dictionary Data Dictionary SA Subject Data Dictionary CATY SA Subject Data Dictionary of interest. The Individual Features dictionary identifies standalone data elements used for model training. ving page and will be updated as new data is added to the dashboard and machine learning models.
ast Updated: September Data Constru	
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, Dependents	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.







Home Overview	Suicide Alcohol Drugs	SH SA Victim	SA Subject Data Dictionary
	your dictionary of interest. The <b>Features Contro</b> se note that this is a <b>living page</b> and will be upd		
Data Constructs	Individual Features	Features Controlled For	Data Sources
Currently in Involuntary Extension	Sailor is currently in involutary extension of service		
Encounter - N/A Months Since First/Last Substance Use Medical Encounter - N/A	Number of months past since the first or most recent ald the Sailor. Positive values are included in the Behaviora Number of months past since the first or most recent dr Sailor. Positive values are included in the Behavioral He Number of months elapsed since the last harassment (s is no record of this behavior for the command. Positive	I Health Concerns construct. ug related medical encounter. An N/A value mea valth Concerns construct. exual or nonsexual) incident recorded in the Sa	ans there is no record of this behavior for the ilor's current UIC. An N/A value means there
Ionths Since Last Suicide-Related ncident - N/A	Number of months elapsed since the suicide-related inc behavior for the command. Positive values are included		/A value means there is no record of this
Ionths To EAOS	Number of months until end of active obligated service of	Jate (Less Than 7, 7 to 12, 13 to 24, 25 to 36, 3	7 to 48, 49 to 60, Greater Than 60)
Occupation Code	Sailor's Navy occupational career category		
Recent Drug/Alcohol Incident Recorded ADMITS)	Sailor was recently involved in at least one alcohol or dr	ug abuse event as recorded in ADMITS	
Recent Sexual Assault Recorded	Sailor was recently involved in at least one sexual assau	ult perpetration event as recorded in DSAID	
Recent Sexual Assault Recorded	Sailor was recently involved in at least one sexual assau	ult victimization event as recorded in DSAID	
Recent Sexual Harassment Incident Recorded (SH/EO)	Sailor was recently involved in at least one sexual haras	sment event as recorded in SH/EO	
Recent Suicidal Behavior Recorded	Sailor was recently involved in at least one suicidal beha	avior event as recorded in DODSER	
Shore/Afloat Command	Whether the UIC the Sailor is currently serving in is prim	arily a Shore or Afloat command based on assi	gnment codes
otal Number of Medical Visits (Low/ Medium)	Total number of medical encounters (e.g., visits, inpatie Medium classes are not displayed in the dashboard; ho		
otal UIC Harassment Incidents - N/A	Number of harassment (sexual or non-sexual) complain behavior for the command. Positive values are included	ts on record for the Sailor's current UIC. An N/A	
otal UIC Suicide Related Incidents - N/A	Number of suicide-related incidents on record for the Sa Positive values are included in the Behavioral Health Co		no record of this behavior for the command.
JIC Size	Number of sailors in UIC the Sailor is serving in		

### **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 Co	ontrolled For	Data Sources
(ADE) NAVYY_MEMBER_ASSIGNMENTS_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 29
(ADE) NAVYY_MEMBER_ASVAB_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 20
(ADE) NAVYY_MEMBER_DESIGNATOR_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 23
(ADE) NAVYY_MEMBER_EVALS_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 21
(ADE) NAVYY_MEMBER_INJURY_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 22
(ADE) NAVYY_MEMBER_PERSON_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 24
(ADE) NAVYY_MEMBER_RANK_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 25
(ADE) NAVYY_MEMBER_SERVICE_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 26
(ADE) NAVYY_MEMBER_WAIVERS_VIEW	FY17-Current	Daily snapshots	s starting Jan 17
(ADE) NAVYY_PERSON_TRAINING_VIEW	CY11-Current	Monthly snapsh	nots 2011-19; Daily snapshots starting Jan 28
(External) COMPREHENSIVE AMBULATORY/PROFESSIONAL ENCOUNTER RECO.	FY17-July 23	Monthly	
(External) DEFENSE SEXUAL ASSAULT INCIDENT DATABASE CASE	FY17-August 23	Monthly	
(External) DEFENSE SEXUAL ASSAULT INCIDENT DATABASE SUBJECT DATA	FY17-August 23	Monthly	
(External) DEFENSE SEXUAL ASSAULT INCIDENT DATABASE VICTIM	FY17-August 23	Monthly	
(External) DEPT OF DEFENSE SUICIDE EVENT REPORT	FY17-July 23	Monthly	
(External) MEDICAL DATA REPOSITORY CLINICAL DATA REPOSITORY VITALS (D	. FY17-June 23	Monthly	
(External) MEDICAL HEALTH SYSTEM GENESIS ADMISSIONS	FY17-July 23	Monthly	
(External) MEDICAL HEALTH SYSTEM GENESIS ENCOUNTER	FY17-July 23	Monthly	
(External) NAVY ALCOHOL DRUG MISUSE PREVENTION CONTROL SYSTEM	FY17-August 22	As Required	
(External) PERIODIC HEALTH ASSESSMENT	FY17-July 23	Monthly	
(External) PHARMACY DETAIL TRANSACTION SERVICE	FY17-July 23	Monthly	
(External) SEXUAL HARASSMENT EQUAL OPPORTUNITY	FY17-July 23	Monthly	
(External) STANDARD INPATIENT DATA RECORD	FY17-March 23	Monthly	
(External) THEATER MEDICAL DATA STORE	FY17-June 23	Monthly	
(External) TRICARE ENCOUNTER DATA - NON INSTITUTIONAL	FY17-June 23	Monthly	
(External) TRICARE ENCOUNTER DATA INSTITUTIONAL	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.

