

# STPA Applied to Destructive Human Behaviors

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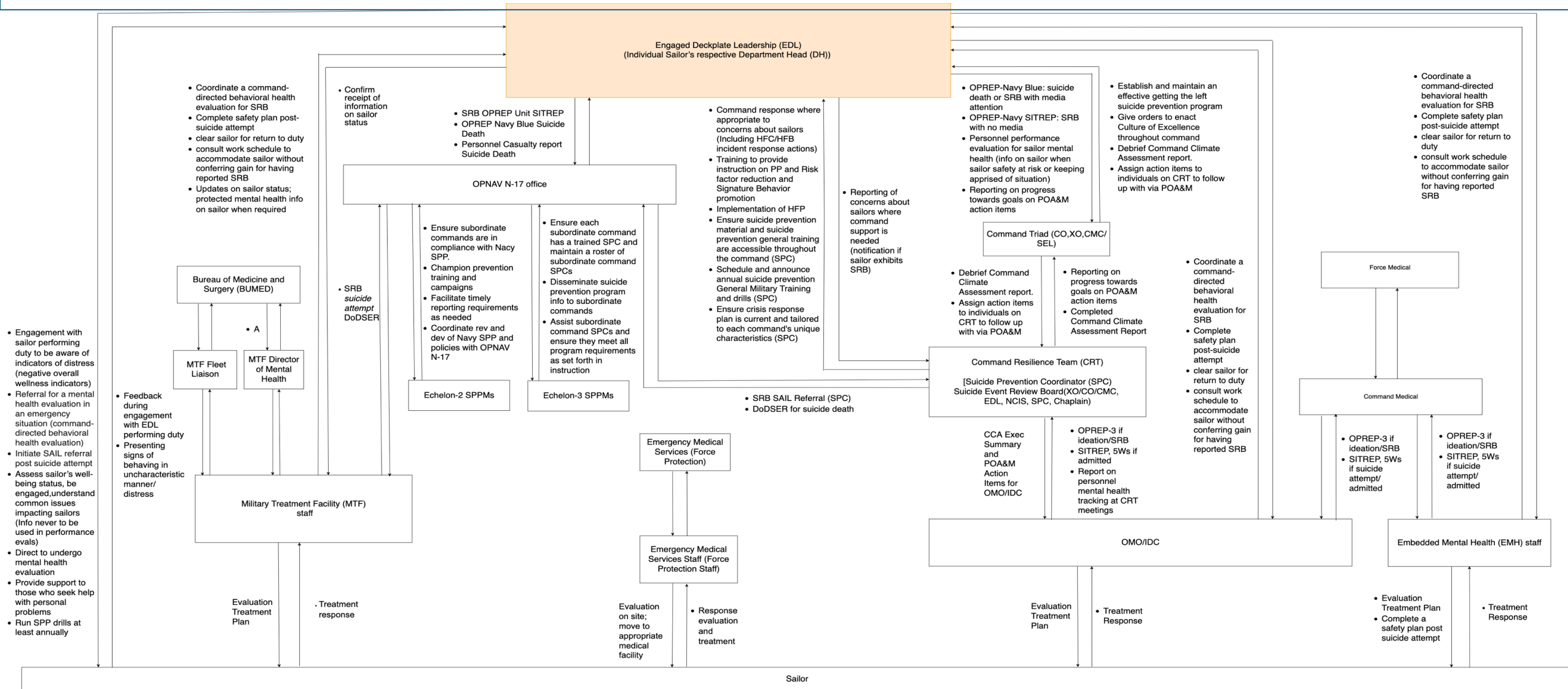
# Motivation

- SURFOR has several efforts (e.g., Operational Surface Risk Indicators project) underway to leverage multi-source data to better understand and predict outcomes of concern.
- Adding additional models to those already built can improve the capability to model risk:
  - These modeling approaches can address problems that cannot be analyzed with the data currently being collected: underreporting of incidents, and continuity of reporting when safety-related positions change
- Taking a step back and looking at Destructive Behaviors (DB) as part of the Navy's larger socio-technical system can provide insight into organizational and leadership factors that can influence DB:
  - While a *significant departure* from the typical analysis of DB
  - It **underpins DoD's Integrated Primary Prevention (IPP)** efforts by indicating where the protective factors at the organizational level and leadership level that can reduce DB, not only protective factors at individual Sailor level

# Problem Statement

- How can we promote protective factors through our organizational structure and policies and our leadership actions?
  - How can we address the underreporting of incidents that might lead to DB?
  - How can we address the continuity of reporting when safety-related positions related to DB change?
- The project aims to identify loss scenarios that can arise from unsafe control actions in the system, providing amplified opportunity for DB to occur using STPA.
  - ***modeling and analyzing the controls (policy and leadership decision-making) over DB.***
  - This analysis can lead to successful, systemic interventions to lower DB prevalence rates.

# Suicide/SRB Control Structure



**Key to Abbreviations on Control Structure**  
A: All of the items below are control actions from BUMED to MTF Director of Mental Health.

- Develop treatment P&P from clinical practice guidelines for sailors who exhibit SRBs
- Develop P&P to ensure medical personnel execute suicide prevention responsibilities, including communicating and coordinating with Sailor's command
- Ensure all MTFs maintain written suicide prevention protocols in acute care areas and ERS

## Ongoing – Takeaways

- Will be completed for Sexual Harassment/Assault, and Alcohol and Drug incidents, in addition to Suicide/SRB.
- It ***underpins DoD's Integrated Primary Prevention (IPP)*** efforts by identifying where the protective factors at the organizational and leadership levels can help reduce DB outcomes.
  - *Underreporting*: how do we account for the parts of the IPP that are not mandatory reporters – before the DB escalates to "medical"? Why is buy-in by all warfighters essential?
  - *Continuity of Reporting*: Criticality of continuity demonstrated in the control structure
- Provides additional evidence of the successful application of STPA to illicit novel insights to improve the engineered environment that surrounds a particular process, such as engagement in destructive behaviors.

# Questions and Answers

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