VETERANS HEALTH ADMINISTRATION

VHA Engineering Staffing Tool

“Overview”

Presentation for: NAS Committee on Facilities Staffing Requirements for Veterans Health Administration
Presented by: Steven Broskey
Date of Briefing: June 21, 2021

Background Information

Purpose: To provide status of VHA engineering staffing tool development and path forward

Agenda:

- Background on Staffing tool
- Initial Concept
- Implementation Strategies
- Future Opportunities
- Questions, Comments, and Open Discussion

VHA Objective

To develop an engineering staffing tool that is adjustable based on site-specific characteristics and inputs

Background Information

Purpose for Developing Tools

Workforce and Budget Planning

- Creating a tool to support management decisions about the number and mix of engineering staffing

Performance and Workload Analysis

- To support staffing decisions to effectively maintain building and utility systems that facilitate delivery of patient care to Veterans
- To help standardize level of service and improve performance in the years ahead
- To objectively assess staffing and the critical mission infrastructure they maintain

Background Information

Desirable Characteristics of the Tools

- Relatively easy for VHA facilities to employ and understand
- Provides credible information to help support resource decisions
- Adaptable to changes
- Readily accessible without significant investment of local time and energy
- Provides VHA facilities tools for data validation and comparisons

Background Information

VHA Initial Approach to Staffing Tools

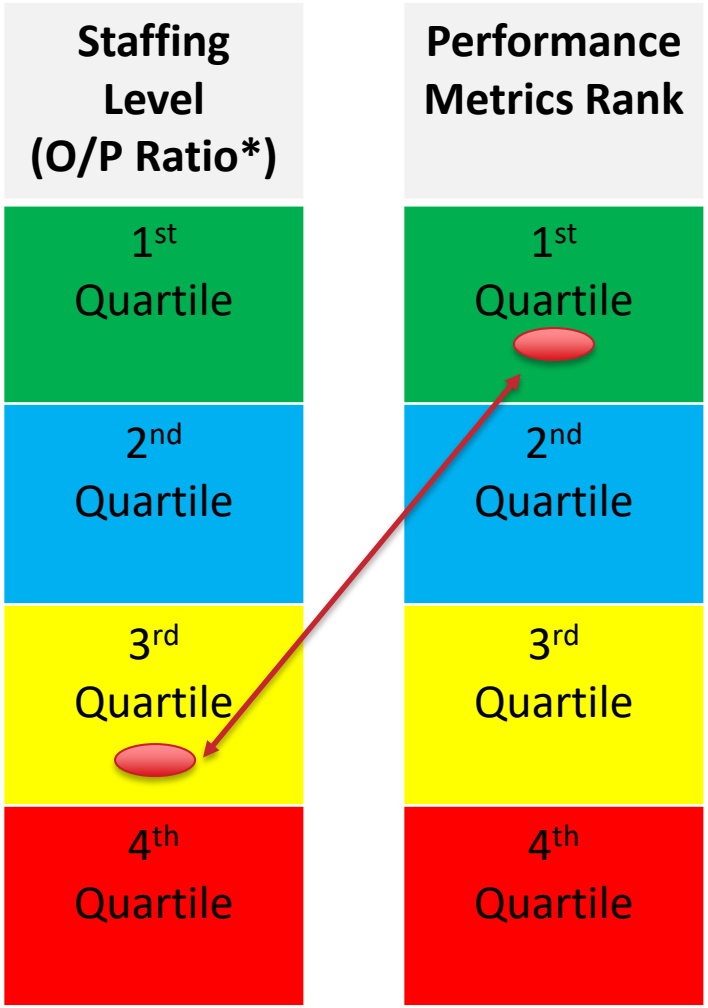
- Combination of Heuristic and Stochastic
- Validation and Substantiation of Existing Staffing Levels
  - CAPRES
  - Engineering Staffing Drill Down Tool
- Internal VHA Staffing Level Comparisons
- Ratios and Benchmarks
- Mathematical analysis using “sanctioned” corporate databases
- Strengthen Foundational Business Processes
  - Data Validation of Existing FTE Levels (Admin/M&R/Capital)
  - Enterprise CMMS System/Standard Workload Capture
  - National Performance Measures and Outcome Expectations

Initial Concepts

VHA Engineering Staffing "Drill Down" Tool: A tool that provides facilities an easy way to review and validate current staffing cost assignments. This is to ensure that the existing on-board staffing levels are accurately represented in any staffing analysis. Also, provides basic ratios and comparisons to VHA averages. Data is refreshed every pay period.

VHA Engineering "Staffing" Tool: An analysis made up several mathematical equations and/or logical relationships that represent a system. It is used to calculate a predicted level of staffing compared to actual staffing dedicated to accomplishing workload. The result is called the "Observed to Predicted" Staffing Ratio.

Initial Concept



Actual vs Predicted Staff
(Based on Regression Analysis)

Concept

- Each facility receives an "predicted" staffing level based on a highly correlated regression analysis
- Each facility is ranked on two elements: Staffing and Performance
- Performance metrics support VHA Engineering requirements and best practice
- All rankings published including source data
- Analyze for correlations between staffing and performance

*Observed to Predicted staffing ratio from linear regression analysis

Initial Concept

Predictive Regression Tool

- VHA OPES develops the highest correlation
- Some measures typically seen on clinical side of house which should support credibility with executives
- Not a measure of appropriateness, but a benchmark
- Publish on a regular basis along with other measures
- Patient Workload (ARC PRP)
- Square Footage
- Building Age

Performance Metrics

- Ideally not self reported
- Will develop over time
- Some standardization will be needed
- Relate to TJC where possible
- Single score based on individual metric weighting or a dashboard
- Engineering as a enterprise business
- Engineering Workload and Critical Utilities
- EOC Rounds Deficiency Completion Time
- Capital Metrics (FCA, NRM, Minor)

Comparative Ranking

- Observed to Predicted Staffing Ratio
- Performance Comparisons
- Published on a regular basis
- Staffing as an element of risk

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“Implementation Strategies and Future Opportunities”

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Implementation Strategies

- Task Force/ Implementation Team [NAS 5.2, 5.3, 5.4]
- VHA Engineering collaborates with VHA Office of Productivity, Efficiency, and Staffing (OPES) to complete and publish the initial engineering staffing comparison tool (nearly complete) [NAS 4.4, 4.5]
- Develop Performance Metrics (underway) [NAS 4.1, 4.2]
- Implement a CMMS Facilities program VHA wide (underway) [NAS-IR1]
- Refine staffing tools as the corporate data from the CMMS and Performance Metrics are optimized (long term evolution) [NAS 4.4, 4.5, 5.5]

Implementation Strategies

Computerized Maintenance Management System (CMMS) [NAS-IR1]

- VA decided enterprise-wide adoption of the Defense Medical Logistics Standard Support (DMLSS) to replace VA's existing logistics and engineering CMMS solution
- VA's legacy system faced numerous challenges and was not equipped to address the complexity of decision-making and integration required across functions, such as acquisition, logistics, and maintenance
- Leverages a proven system that DoD has developed, tested and implemented.
- DMLSS and its technical upgrade LogiCole will better enable VA to use DoD Medical/Surgical Prime Vendor and other DoD sources, as appropriate, as the source for VA medical materiel
- Will replace VHA's legacy Automated Engineering Maintenance System
- VA piloted DMLSS at James A. Lovell Federal Health Care Center and is implementing at selected sites as first phase of enterprise-wide application

Future Opportunités

“A transformational journey for the VHA Engineering Program…"

Future Opportunités

- Defining and Implementing Target Performance Levels for VHA Facilities Engineering Program [NAS 4.1, 4.2]
- Analyzing Links Between VHA Facilities Management (Engineering) Staffing and Performance [NAS 4.3]
- Reestablish Chief Engineer Advisory Council [NAS 5.1]
- Deployment of DMLSS VHA wide as the standard, and in doing so, facilitate standardization and analysis of workload [NAS-IR1, NAS 5.4]
- Annual updates and refinements to Engineering Staffing Tools [NAS 5.5, 5.6]
- Continued VHA Support for Implementation and Sustainment of Staffing effort [NAS 5.5, 5.8]

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