



INTRODUCTION

- Military nurses and enlisted medical personnel are essential to combat casualty care in operational environments.
- However, clinical activity performed in garrison is not systematically captured, limiting objective assessment of expeditionary clinical readiness.

OBJECTIVES

- We conducted this study to:
1. **Develop** a replicable method to identify nurse and enlisted medical personnel clinical activity across the Military Health System (MHS).
 2. **Define** standardized measures to evaluate readiness-relevant clinical activity aligned with specialty-specific Joint Expeditionary Scopes of Practice (JESP).
 3. **Demonstrate** the application of these measures across the MHS.

METHODS

- **Design:** Retrospective observational study of nurse and enlisted medical personnel clinical activity.
- **Data:** MHS GENESIS structured data from November 1, 2024, through October 31, 2025.
- **Study Population:** Personnel identified using Department of Defense (DoD) occupational codes and system identifiers for clinical nurses, operating room nurses, surgical technicians, tactical medical technicians, and respiratory therapists providing care or participating in surgical procedures.
- **Locations:** Fifteen core military hospitals designated by DHA Healthcare Operations.
- **Primary Outcomes:**
 1. Monthly unique clinical days
 2. Encounter-Days
 3. Procedure-specific activities aligned with specialty-specific JESP measures

RESULTS

- **Final Sample:** 17,049 personnel from 15 military hospitals, representing 5 clinical specialties (see **Table 1**).
- **Data Extraction Model:** Custom Structured Query Language (SQL) allowed the capture of granular data by team member for readiness evaluation (see **Figure 1**).
- **Provider metrics:** The median provider worked 12 clinical days (IQR=10) and participated in 31 (IQR=54) encounters per month. JESP-aligned tasks like placing peripheral IVs (N=174,497 encounters), arterial lines (N=1,318 encounters), and ventilator management (N=177,882 encounters) were common, but wide variation was noted amongst personnel (see **Figure 2**).
- **Military hospital workload:** The median provider clinical days (median = 7,363 and IQR = 4,188) and encounters (median = 39,892 and IQR = 13,901) per month varied widely, as did performance of JESP-aligned tasks (see Figure 3).

Table 1: Overall Sample by Personnel Type

N	17,049
Medical Specialty	
Clinical Nurse	11,010
Tactical Medical Technician	5,328
Respiratory Therapist	650
Operating Room Nurse	306
Surgical Technician	61

Figure 1. Workload Data Capture and Mapping Strategy Snake Chart

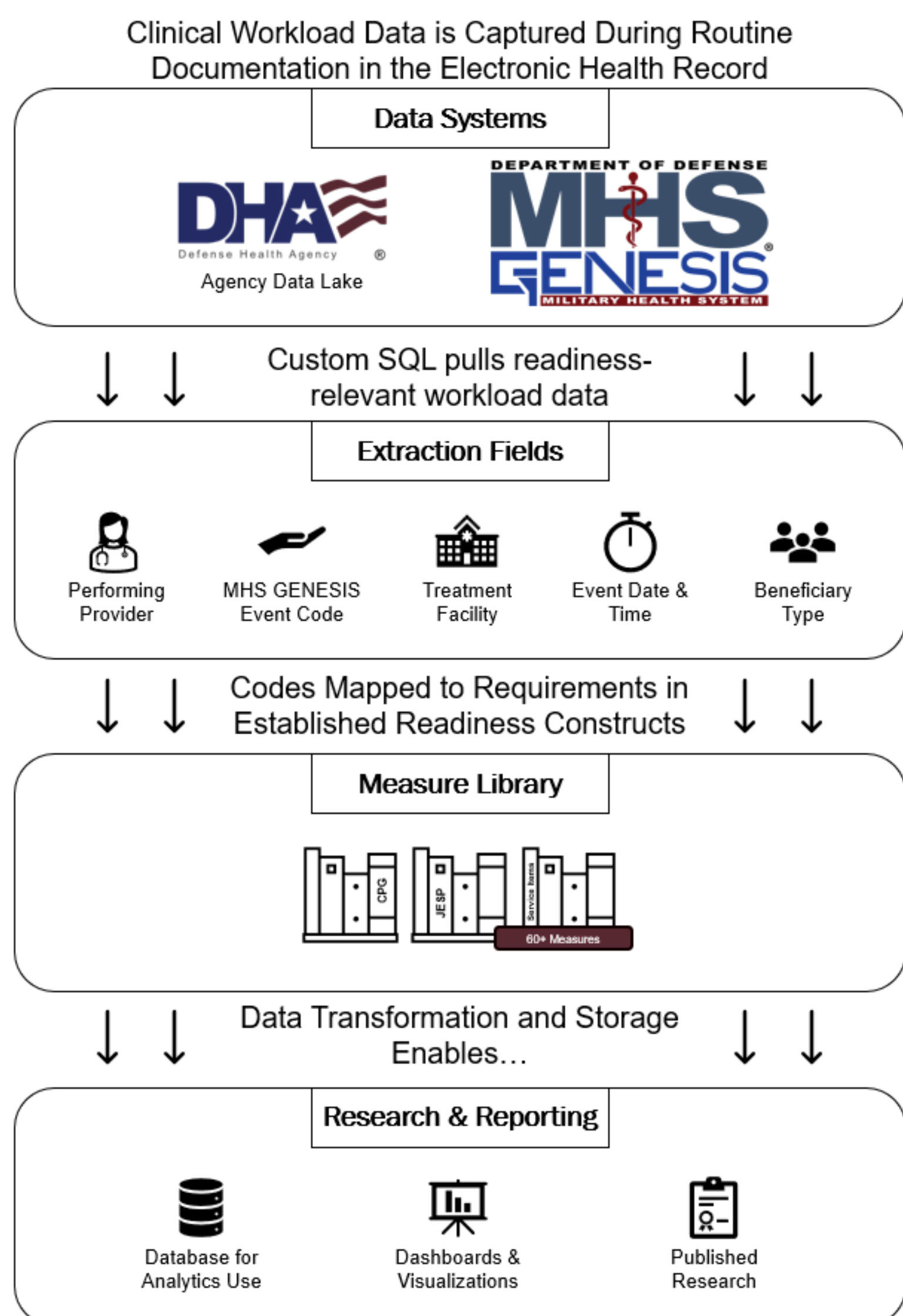


Image illustrates end-to-end data collection and analysis, from passive data capture via routine documentation in MHS GENESIS and mapping electronic health record event codes to established readiness constructs for evaluation and reporting.

Figure 2. Box Plots of Clinical Days and Encounters per Month per Provider by Specialty

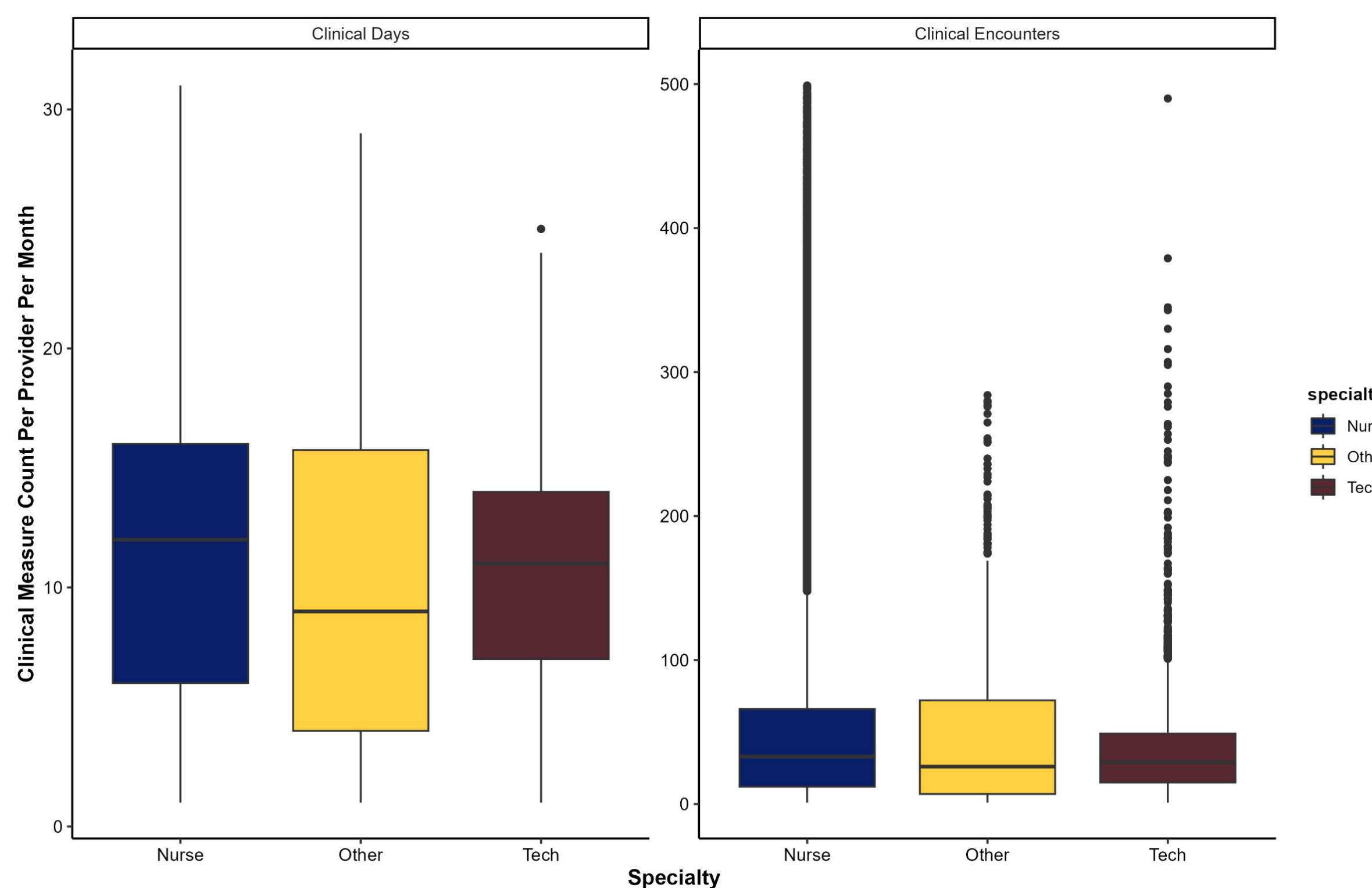
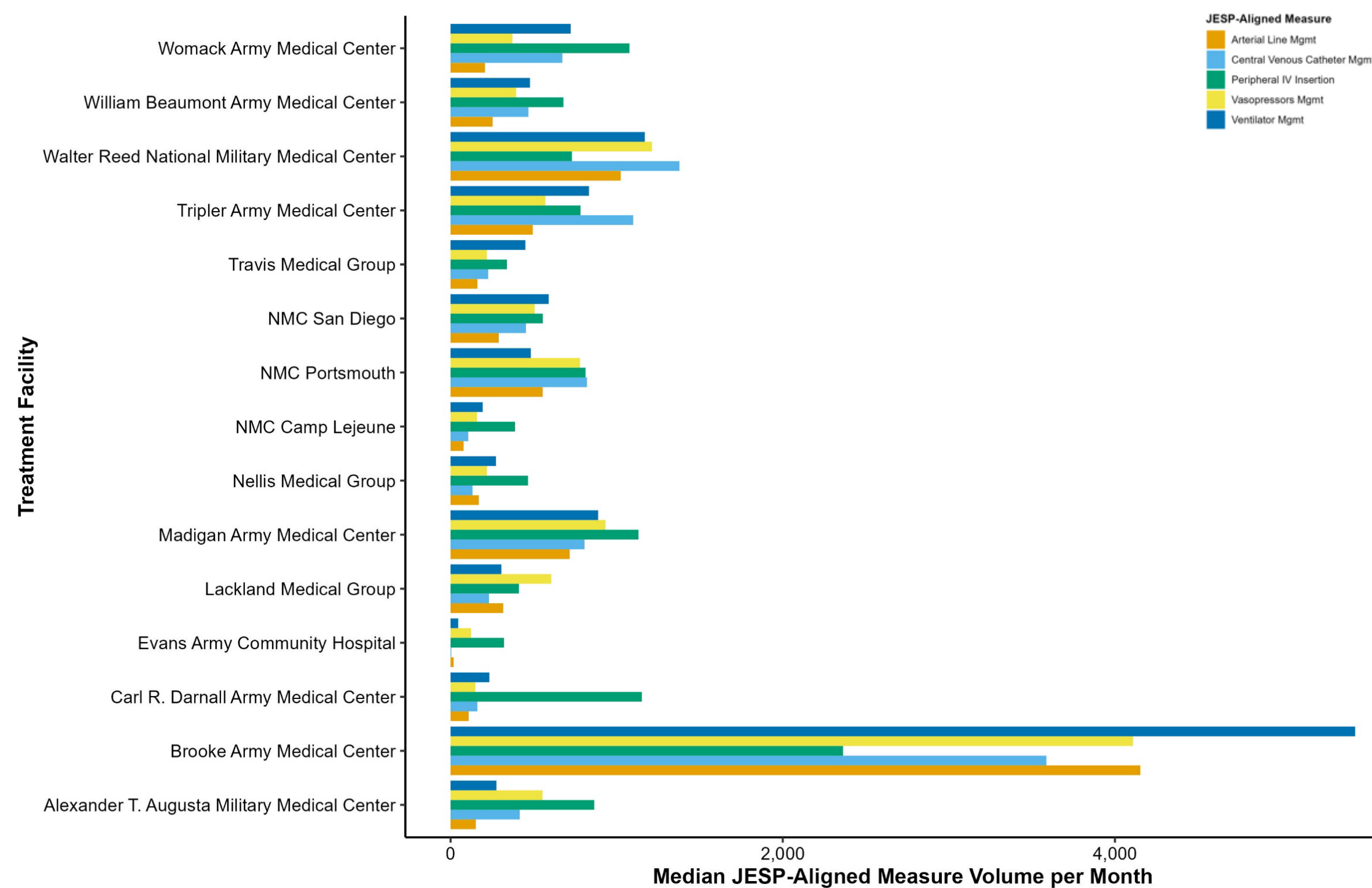


Figure 3. Side-by-Side Bar Plot of Select Median JESP-Aligned Measure Volumes per Month by Treatment Location



CONCLUSIONS

- **Conclusions**
 1. Structured MHS GENESIS documentation enables scalable capture of readiness-relevant clinical activity for military nurses and enlisted medical personnel.
 2. A standardized data model provides a foundation for objective assessment of clinical readiness across combat casualty care teams.
 3. Initial analyses demonstrate substantial variation in clinical experiences within specialties and across military hospitals.
- **Next Steps**
 1. Validate candidate readiness measures through specialty-specific subject matter expert review.
 2. Establish consensus JESP-aligned measures using a modified Delphi process.
 3. Develop and validate weighted JKSA readiness scores for enterprise implementation.

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