DHA Research and Engineering Overview

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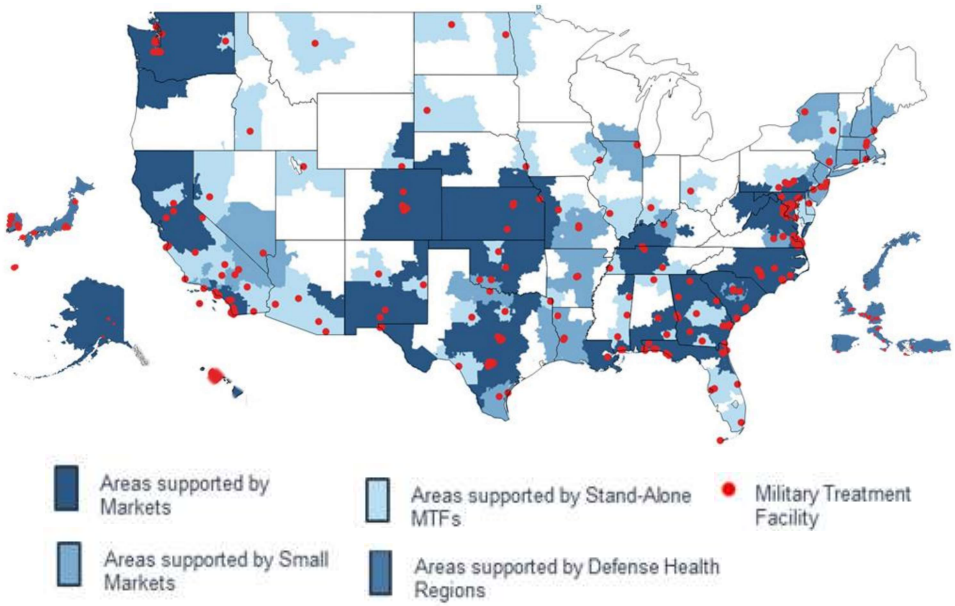
Disclosures

The presenter has no interest to disclose.

The views, opinions and findings contained in this presentation are those of the presenter and should not be construed as an official Department of Defense position, policy or decision unless so designated by other documentation.

Military Health System

A comprehensive, integrated healthcare delivery system



- **$50+ billion** per year military medical enterprise
- **49** hospitals, **465** medical clinics, **192** dental clinics
- **~130,000** participating providers
- **9.6** million beneficiaries including **1.4 million** active duty, **331,000** reserve-component personnel, military retirees, and family members
- University with **accredited medical school and graduate programs**
- **~$2.2 billion** medical research and development (R&D) program

DHA Strategic Priorities

DHA supports the delivery of *integrated, affordable, and high-quality* health services at all military medical treatment facilities.

Eight Strategic Initiatives Serve as Drivers for Change

These initiatives work in concert to drive improvement in the above strategic KPIs

Implement Ready Reliable Care	Improve Patient Outcomes	Enhance Staff Development and Growth	Improve HQ Performance and Business Management Processes	Sustain Expeditionary Medical Skills	Optimize the Healthcare System	Right Information, at the Right Place, Right Time, in the Right Format for the MHS	Execute Transition

Ready Reliable Care to Increase High Reliability

Ready Reliable Care is DHA's approach to increasing high reliability across the Military Health System. Ready Reliable Care drives continuous process improvement that delivers great outcomes in readiness and health.

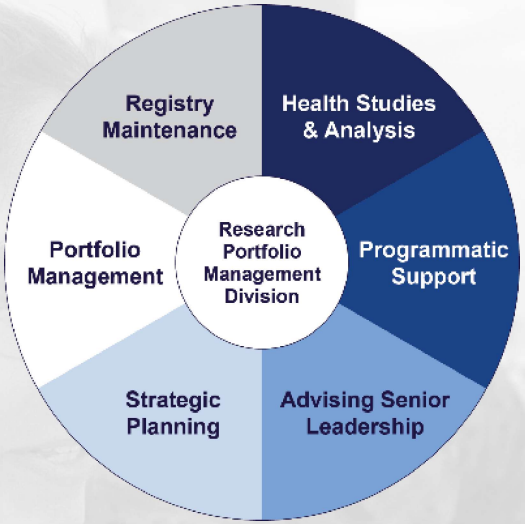
Seven Ready Reliable Care Principles

Research & Engineering Operational Viewpoint (OV-1)

Mission: Lead the discovery of innovative medical solutions responsive to the needs of Combatant Commands, the military Services, and the Military Health System

Inputs

- White House priorities
- Congressional mandates & inquiries
- DOD leadership priorities
- DOD & DHA directives
- Joint, validated requirements
- DHP RDT&E guidance
- DHA Campaign Plan initiatives
- Clinical gaps & priorities



Outputs

- S&T investment strategies
- Research transition agreements
- Strategic roadmaps
- Clinical recommendations & guidance
- Agency-wide policies for clinical investigations
- Efficient approvals of research protocols
- Research insights on MHS quality, variation, readiness
- Effective implementation of evidence-based changes to care

Ready Medical Force ● Satisfied Patients ● Great Outcomes

S&T Management Overview

- DHA supports the Assistant Secretary of Defense for Health Affairs in management and oversight of the Defense Health Program (DHP) Research, Development, Test and Evaluation (RDT&E) appropriation
- DHA DHP RDT&E oversight and management model has been evolving and improving over time
- Current and planned Science & Technology (S&T) reforms will centralize management of the investments and improve joint requirements alignment and product development
- Important step in the execution of NDAA 2019 Sect 711/737 and subsequent optimization efforts

Medical R&D Investment Approach

- The DOD **leads** in key biomedical research areas: e.g., prolonged field care, en route care, forward surgical/intensive critical care, hemorrhage control and blood products
- The DOD **leverages** investments in areas where commercial technologies exist and can be tailored for military use: e.g., medical simulation and training, diagnostic systems, pain management, infectious diseases
- The DOD **watches** areas of emerging interest: e.g., medical radiological defense and other tech areas like artificial intelligence/machine learning

RDT&E Major Investment Areas

Military Operational Medicine

- Musculoskeletal injury prevention and reduction
- Blunt, blast, accelerative, and neurosensory injury prevention and readiness
- Psychological health & resilience
- Performance in extreme environments
- Optimized cognition & fatigue mitigation

Combat Casualty Care

- Neurotrauma
- Hemorrhage control & battlefield resuscitation
- Prolonged Care
- Severe burn
- En Route Care
- Autonomous care & evacuation
- Radiation health countermeasures
- Sustainment of medical expeditionary skills
- Military medical photonics

Military Infectious Diseases

- Viral
- Bacterial
- Wound Healing

DHA Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) Programs

- Congressionally mandated programs to increase participation of U.S. small businesses in federal research and development
- Support businesses in developing high-risk, high-impact medical materiel technologies with potential for wider commercialization
- Funding: FY21 SBIR $63.1 Million, FY21 STTR $8.8 Million
- DHA topic areas: combat casualty care, military infectious diseases, military operational medicine
- Resources:
  - **SBIR·STTR website (sbir.gov)** provides information on SBA policy directives, award data, and state-based proposal assistance coordinators
  - **Defense SBIR/STTR Innovation Portal (dodsbirsttr.mil)** offers DoD SBIR/STTR broad agency announcements, topic Q&A, and email list registration for updates
- Contacts:
  - CDR Tatana Olson, Program Director, tatana.m.olson.mil@mail.mil
  - Mr. JR Myers, Project Manager, james.r.myers38.civ@mail.mil

Research, Acquisition and Sustainment Transition

BLUF: National Defense Authorization Act (NDAA) FY 2019 and NDAA FY20 direct funding, manpower, and other resources from the U.S. Army Medical Research and Materiel Command (MRMC) to be transferred to DHA. DHA will assume **authority, direction, and control** of medical **research, acquisition, and sustainment** capabilities previously executed by MRMC organizations.

Updates:

- Establishing plans and procedures to execute transition of USAMRMC to DHA
- Goal of transition planning ensures MRMC remains intact with **minimal disruptions to personnel, processes and functions**
- Congressional Directed Medical Research Program (CDMRP) will transfer into DHA intact with **no changes to program processes**
- Vast majority of medical RDT&E capability gaps are **joint issues** (i.e., hemorrhage control, resuscitation, vaccines)
- Linking RDT&E investments with the MHS enterprise supports **improved outcomes** across all roles of care