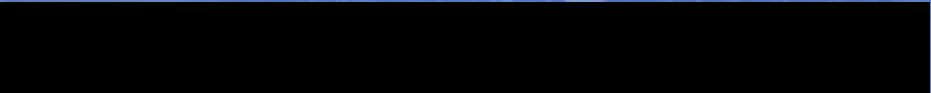




Naval Health Research Center

Defense Health Board



Commanding Officer

10 FEB 16



Disclaimer

The views expressed in this research are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of the Army, Department of the Air Force, Department of Veterans Affairs, Department of Defense, or the U.S. Government.

Readiness Through Research





Overview

- NHRC Mission and NAVMED Research
- NHRC Core Research Capabilities
- Research Process Perspectives

Readiness Through Research



NHRC

- **DoD Deployment Health Research Center**
 - Designated in 1999
 - Re-designated in 2009
- **Navy Medicine's Premiere Health Research Laboratory**





NHRC



Mission

To optimize the operational health and readiness of our armed forces by conducting research and development to inform DoD policy and practice.

Vision

To be the premiere operational health research center for the DoD.





Navy Medicine Research Enterprise



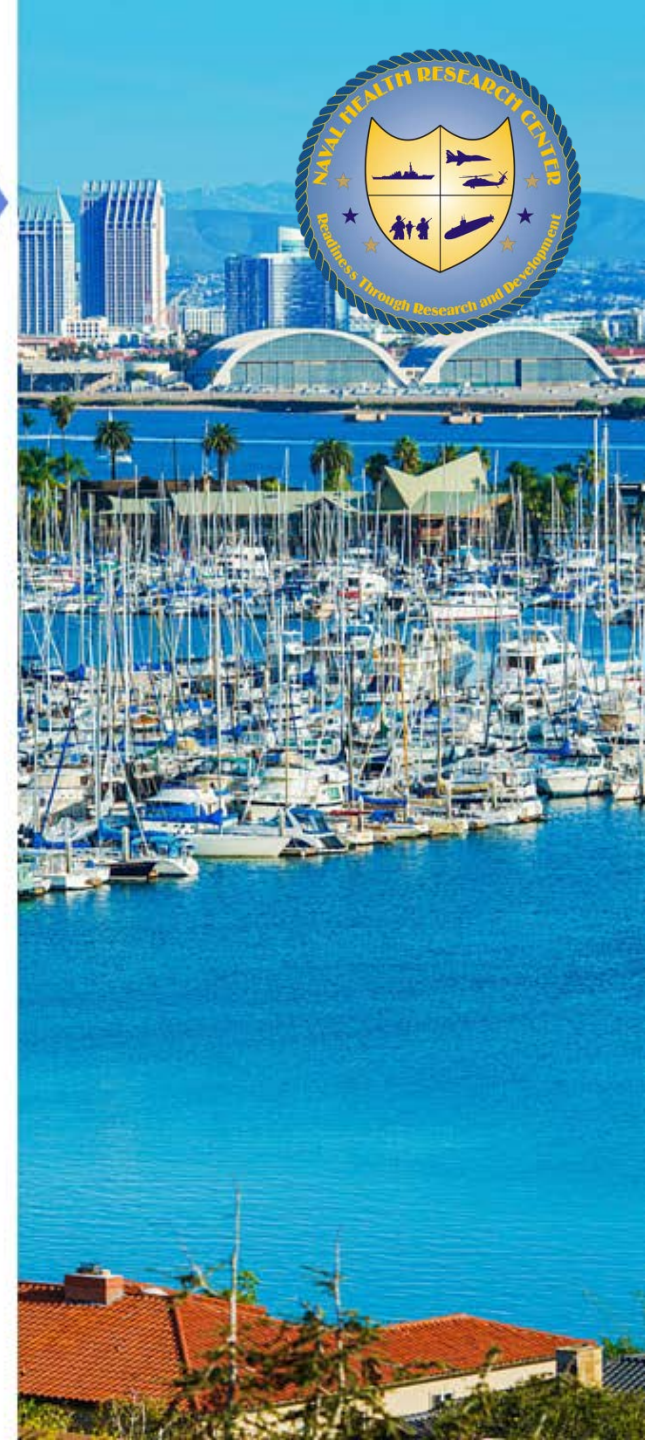
Readiness Through Research



NHRC

- **Naval Base Point Loma**
 - Strategic location
 - Fleet concentration
 - World-class universities
 - Biotech and industry partners
 - Naval Hospital Camp Pendleton
 - Naval Medical Center San Diego (NMCS D)

Readiness Through Research





Core Research

Readiness Through Research



Core Research

- **Medical Informatics**

Collect, analyze, and interpret health and medical data

- **Deployment & Operational Health Readiness**

Optimize health and performance

- **Military Population Health**

Protect and maintain health

Readiness Through Research





Core Research

Medical Informatics

- *Medical Planners' Toolkit (MPTk) (Data Analysis and Interpretation)*
 - **Who:** Service members injured or ill in theater from past conflicts beginning with WWI
 - **What:** Casualty data expressed in ICD-9 codes
 - **Use:** Suite of tools offering end-to-end solution for medical support planning across range of military operations
 - *Fully accredited for DoD use*
- *Expeditionary Medical Encounter Database (EMED)*
 - **Who:** Deployed service members
 - **What:** Casualty data from point of injury to rehab
 - **Use:** Supports medical modeling and simulation; ability to estimate patient stream estimates and materiel item requirements

Readiness Through Research





Core Research

Medical Informatics

- *CHAMPS (Database)*
 - **Who:** Navy, Marine Corps, Army, Air Force, and Coast Guard personnel
 - **What:** Medical and personnel database from accession through separation/discharge
 - **Use:** Epidemiological studies
- *RAP (Data Collection & Study)*
 - **Who:** USMC male recruits
 - **What:** Baseline health data
 - **Use:** Research to understand impact of service on health
- *JTAPIC (Partnership for Medical Data Collection)*
 - **Who:** Combat incident data (injury and damage to equipment and PPE)
 - **What:** Analysis and epidemiology
 - **Use:** Mitigate injuries

Readiness Through Research





Core Research

Medical Informatics

- *Millennium Cohort (Data Collection and Study)*
 - **Who:** Over 200k service members/veterans enrolled (Family Cohort added in 2011)
 - **What:** Physical, mental, and behavioral health data as well as occupational, military-related, and social support information
 - **Use:** Understand long-term health outcomes associated with military service and provide critical information to inform policy and guidelines to enhance the health of future generations of military
- *Birth and Infant Health Registry (BIHR) (Data Collection and Study)*
 - **Who:** All infants born to military families thru first year
 - **What:** Birth defect and infant health outcomes
 - **Use:** Assess impact of military-unique exposures on infant and reproductive health

Readiness Through Research





Core Research

Medical Informatics

- *Infectious Diseases Detection and Surveillance (Data collection and analyses)*
 - Influenza and Other Febrile Respiratory Illness (FRI)
 - Weekly surveillance of select DoD populations
 - Border
 - Detection and surveillance of influenza and other FRI along US-Mexico border in collaboration with the CDC
 - Acute Gastroenteritis
 - Weekly surveillance of select DoD populations

Readiness Through Research



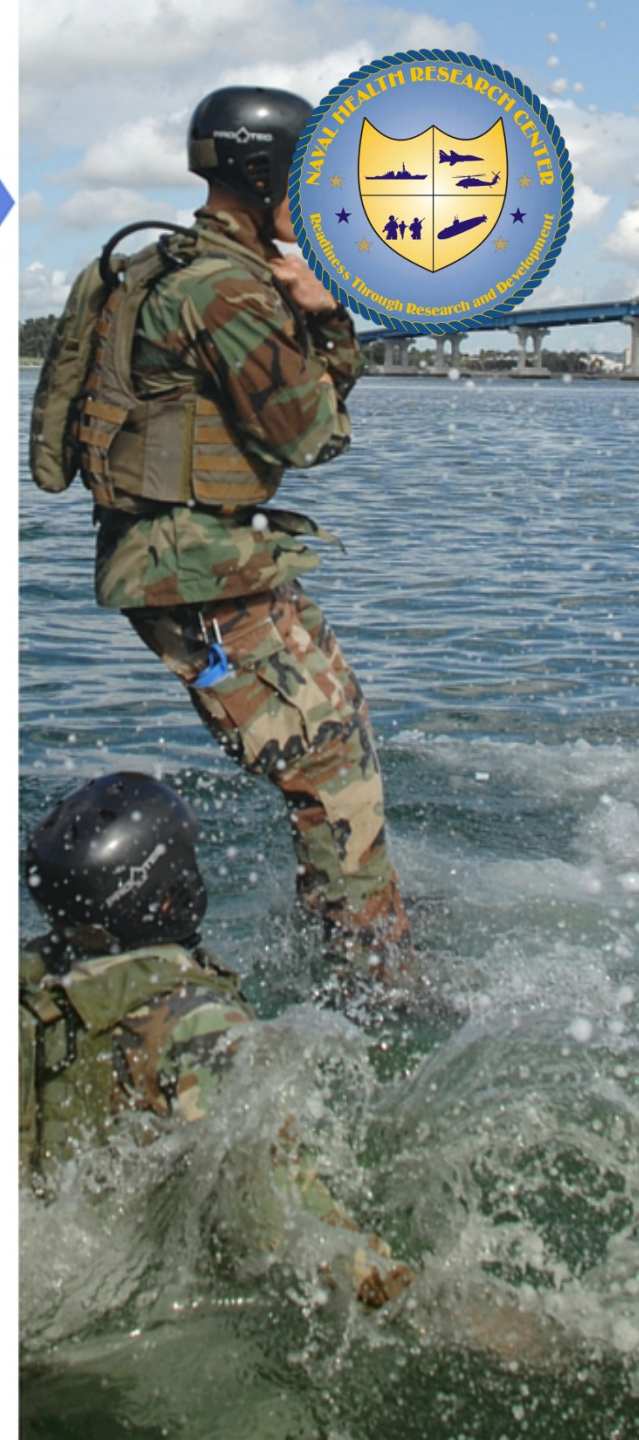


Core Research

Deployment & Operational Health Readiness

- *Warfighter Physical Standards*
 - PRT
 - Combat and Occupational Fitness Tests
 - Environmental Physiology
 - Injury Recovery and Rehabilitation
 - Fatigue
 - Operational Equipment T&E
- *Psychological Health*
 - PTSD and Depression
 - Suicide Prevention
 - Substance Abuse
 - Sexual Assault
 - LGB/T

Readiness Through Research





Core Research

Deployment & Operational Health Readiness

- *Operational Readiness Studies and Analysis*
 - MTF Optimization
 - Analyze staffing configurations, treatment protocols, specialty care, medical evacuation capabilities, and casualty clinical status/outcomes to optimize throughput
 - Course of Action Assessment
 - Identify, analyze, and evaluate theater joint health service support through:
 - Medical systems analysis
 - Logistics analysis
 - Operational risk assessments

Readiness Through Research





Core Research

- **Military Population Health**

- *Program and Product Development & Evaluation*

- Behavioral and psychological health research, training, and educational materials

- *Diagnosis, Prevention, and Treatment Clinical Trials*

- Diagnostic platforms
- Vaccines
- Flu therapeutics
- Clinical treatment protocols

- *Global Public Health Support*

- DHAPP
- Infectious disease reporting and outbreak support

Readiness Through Research





Research Process Perspectives

Readiness Through Research



Research Process Perspectives

1. Improve visibility of DHP-funded research to enhance coordination of efforts, oversight, and collaboration across DoD

- Challenge: Limited visibility among DoD researchers of all DHP-funded research opportunities and SMEs
 - Opportunity: Create an easily accessible virtual tool that captures;
 - Current research projects
 - Funding opportunities
 - Knowledge products
 - Transitions
 - SMEs

Readiness Through Research





Research Process Perspectives

1. Improve collaboration of DHP-funded research across DoD

- Challenge: Decreased research funding/limited resources
 - Opportunity: Maximize intramural-competed funding opportunities before opening to extramural applicants
 - Opportunity: Increase core funding
- Challenge: Different interpretation and implementation of DoD/U.S. Code regulations across services
 - Opportunity: Develop uniform, MHS-wide processes to guide RDT&E (contracting, funding, IRB, PAO)

Readiness Through Research





Research Process Perspectives

1. Improve collaboration of DHP-funded research across DoD

- Challenge: Decisions to collaborate/not collaborate made at the individual PI level
 - Opportunity: Incentivize and provide structured opportunities for collaboration across labs and services





Research Process Perspectives

2. Challenges in funding, initiating, conducting, and publishing DHP medical research

- Challenge: Align research requirements and priorities to the needs of line leaders and MHS strategic priorities
 - Opportunity: Current DHA oversight of DHP funds could allow for greater service integration of JPCs and development of formal methods for soliciting feedback to guide research portfolios
- Challenge: Current research funding opportunities and priorities not widely published to all MHS researchers
 - Opportunity: List future funding opportunities and research priorities on a centralized, virtual location accessible to all MHS researchers





Research Process Perspectives

2. Challenges in funding, initiating, conducting, and publishing DHP medical research

- Challenge: Development of programmatic-level research hindered by turnover among military and contract SMEs
 - Opportunity: Encourage development of true research career-track for military officers
 - Opportunity: Develop funded program for junior researchers to facilitate mentoring, learning research process, and achieving first success
- Challenge: Lack of a mechanism to fund the sustainment of basic research facilities and equipment, which decreases competitiveness
 - Opportunity: Establish process and funding for procuring, maintaining, and lifecycle management of basic equipment and facilities necessary for RDT&E

Readiness Through Research





Research Process Perspectives

2. Challenges in funding, initiating, conducting, and publishing DHP medical research

- Challenge: Navy Medicine research laboratory business model does not provide core research funding
 - Opportunity: Consider aligning Navy business model with Army and Air Force models





Research Process Perspectives

3. Improve efficiency of initiating and conducting high quality research

- Challenge: Establishing agreements is often a lengthy process that impedes research
 - Opportunity: Develop policy to allow for review and signature of designated agreements at a lower level to expedite process
- Challenge: Timely receipt of DHP funds through the topline transfer process
 - Opportunity: Develop a tool that allows for tracking of funds through the process
 - Opportunity: Review process to evaluate for inefficiencies and redundancies





Research Process Perspectives

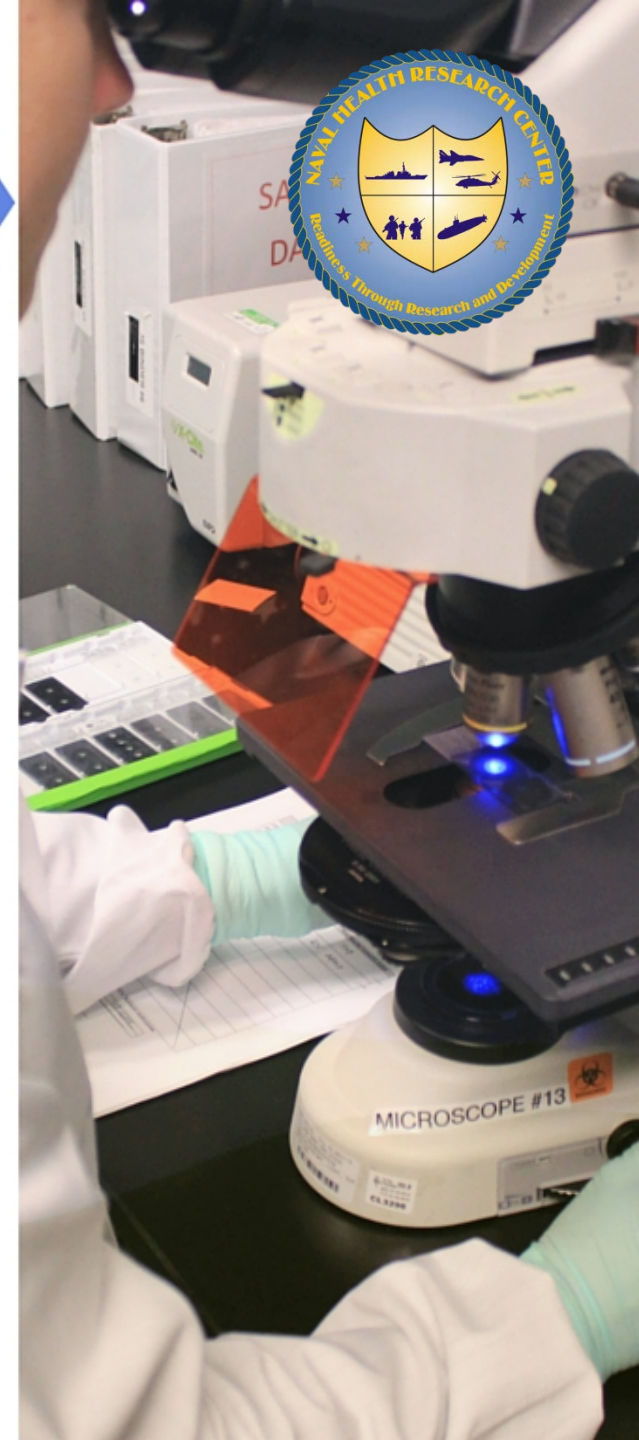
4. **Determine how DoD may improve IRB processes for more efficient approval of multi-center studies and clinical trials**
 - Challenge: Clinical trial collaborators often request secondary, full IRB reviews that adds additional time to the research process
 - Opportunity: Establish policy to determine IRB primacy for review and approval; secondary collaborators receive courtesy copy for their IRB
 - Opportunity: Have one DHA-established IRB to review and approve all DHP-funded, multi-center clinical trials





Research Process Perspectives

5. **How can we encourage more professionals to become engaged in research?**
 - Leverage Program 6 and Program 8 funding to develop collaborative opportunities for providers and researchers to create team approach to funding, initiating, conducting, and publishing research to enhance clinical practice and readiness





Command Leadership



Commanding Officer

Naval Health Research Center
140 Sylvester Road
San Diego, CA 92106-3521
619-553-8429



Executive Officer

Naval Health Research Center
140 Sylvester Road
San Diego, CA 92106-3521
619-553-8420

