

Health Services Research: Fostering High Reliability in the Military Health System

AMSUS 2018 Discussion Panel
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Disclosure

Presenters have no interest to disclose.

AMSUS and ACE/PESG staff have no interest to disclose.

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Learning Objectives

- 1) Describe current HSR priorities for the MHS
- 2) Describe obstacles and opportunities for data use within this system
- 3) Identify opportunities for research leading to knowledge translation within their own areas.

Bolstering Health Services Research in the Military Health System

Richard F. Stoltz, Ph.D., ABPP
Research & Development (J-9)



Health Services Research (HSR)



HSR

The National Academy of Health Defines Health Services Research as: “A multidisciplinary field of inquiry, both basic and applied, that examines the use, cost, quality, accessibility, delivery, organization, financing, and outcomes of healthcare services to increase knowledge and understanding of the structure, processes, and effects of health services for individuals and populations”

Studies in HSR investigate how social factors, health policy, financing systems, organizational structures and processes, medical technology, and personal behaviors affect access to healthcare, the quality and cost of healthcare, and the quantity and quality of life

Compared with medical research, HSR is a relatively young science that developed through the bringing together of social science perspectives with the contributions of individuals and institutions engaged in delivering health services

“Medically Ready Force...Ready Medical Force”

What Problem are we Trying to Solve?



Need

- The MHS lacks a robust Health Services Research program that could lead to significant improvements within the MHS

Challenge

- There is a big gap between researchers and providers in the MHS
- The MHS has a wealth of data but doesn't have the infrastructure in place to routinely analyze the data

Goal

- Improve patient outcomes
- Improve research practice integration
- More effective and efficient healthcare system

Research-Practice Integration (RPI)

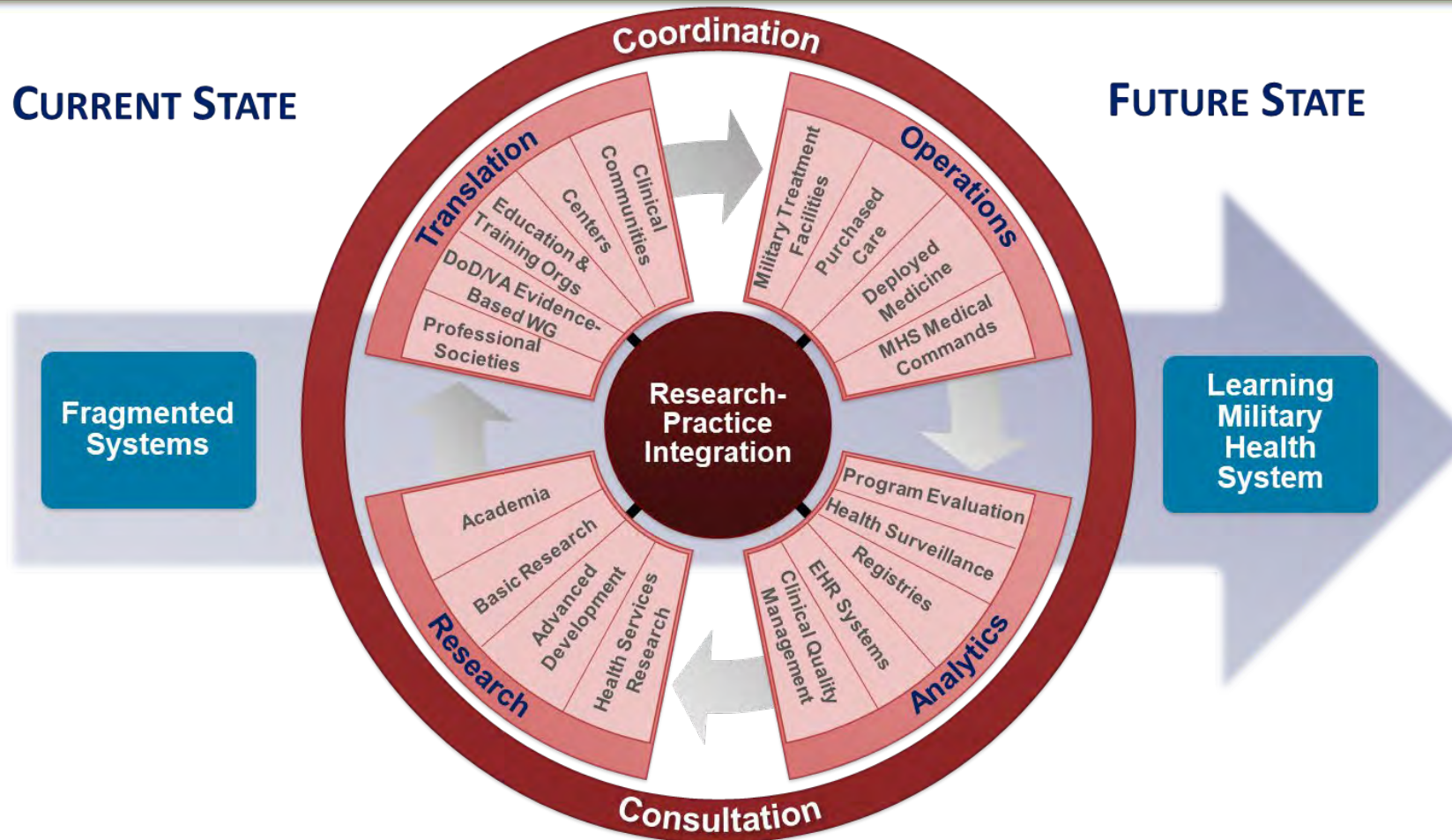
MHS providers need the most up-to-date research to provide the best care to their patients



New Crown Point Bridge under construction between states of New York and Vermont, USA}} Author, Daniel Case |Date 2011-08-23,
https://en.wikipedia.org/wiki/Crown_Point_Bridge

“Medically Ready Force...Ready Medical Force”

Vision for Enterprise RPI Capability



“Medically Ready Force...Ready Medical Force”

Possible Approaches to Solve the Problem



Centralized and aligned Health Services Research (HSR) structure

Support HSR studies based on requirements

Establish a process to disseminate, implement, and evaluate HSR research results to the appropriate providers

Clarify the roles of Clinical Communities and Centers of Excellence in the process

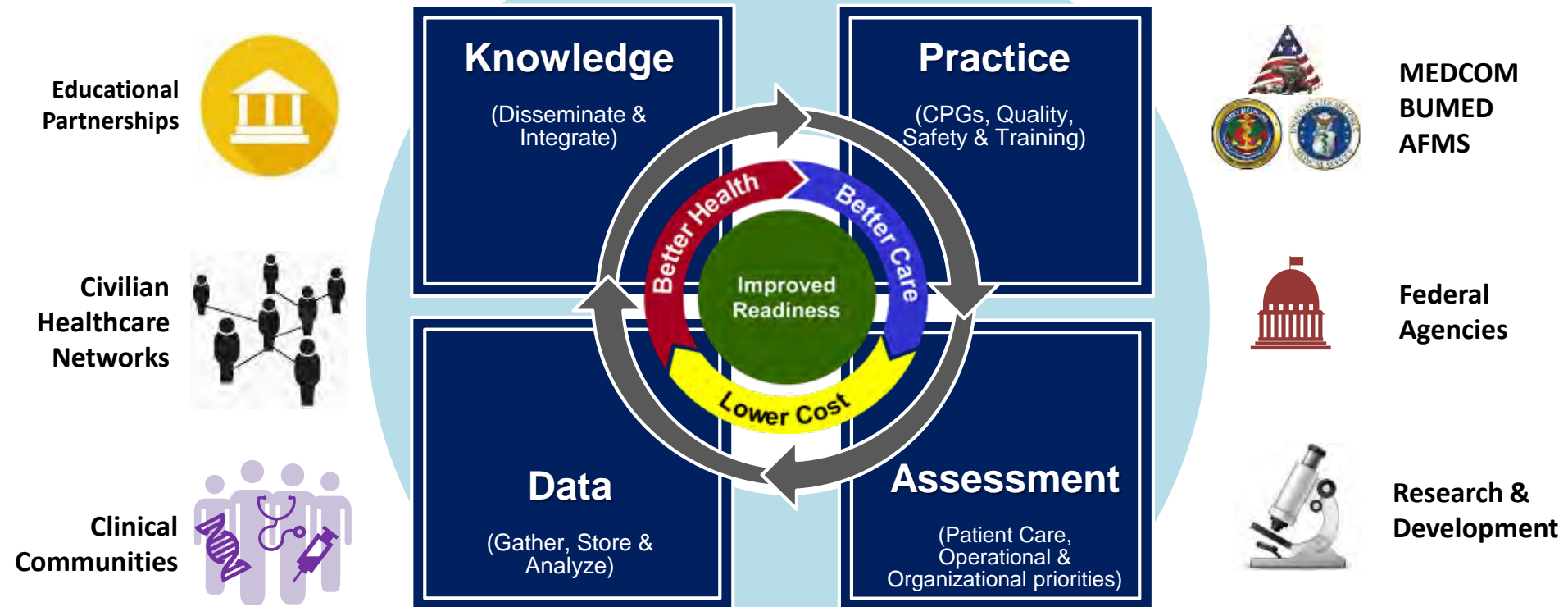
Focus on the importance of firmly establishing a learning healthcare system

Learn from Implementation Science

Health Services Research (HSR) Cycle



HSR will optimize MHS operations and outcomes for health, well-being and readiness



Virtual Research Environment: A Proposal to Overcome Data Source Challenges

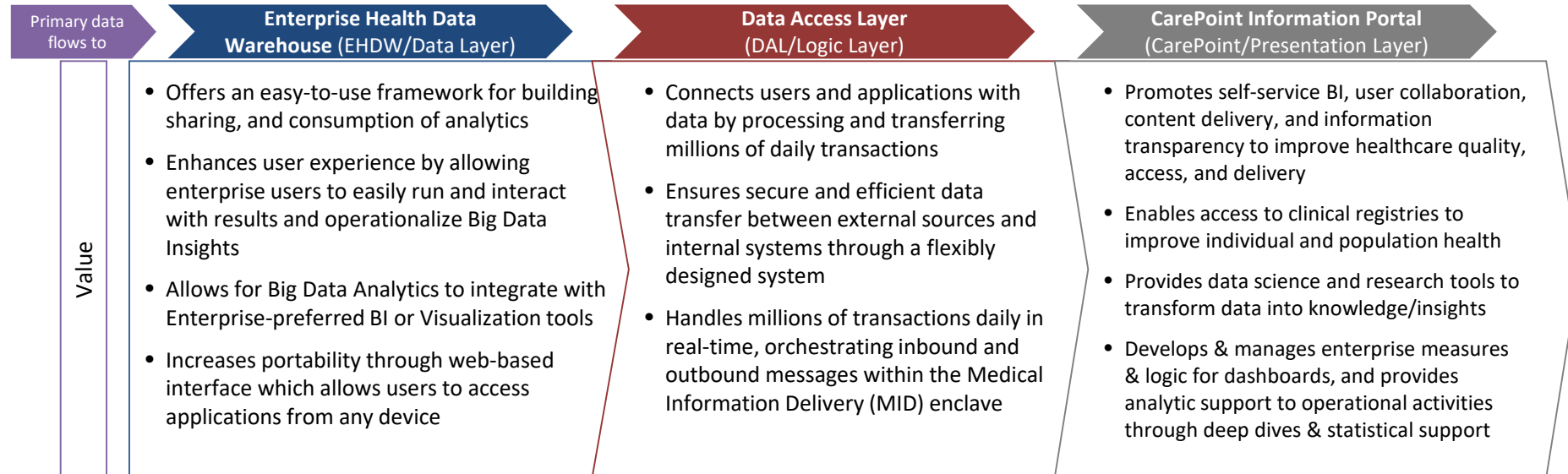
COL Mark Maneval, MS USA, PhD
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MHS Information Platform (MIP)

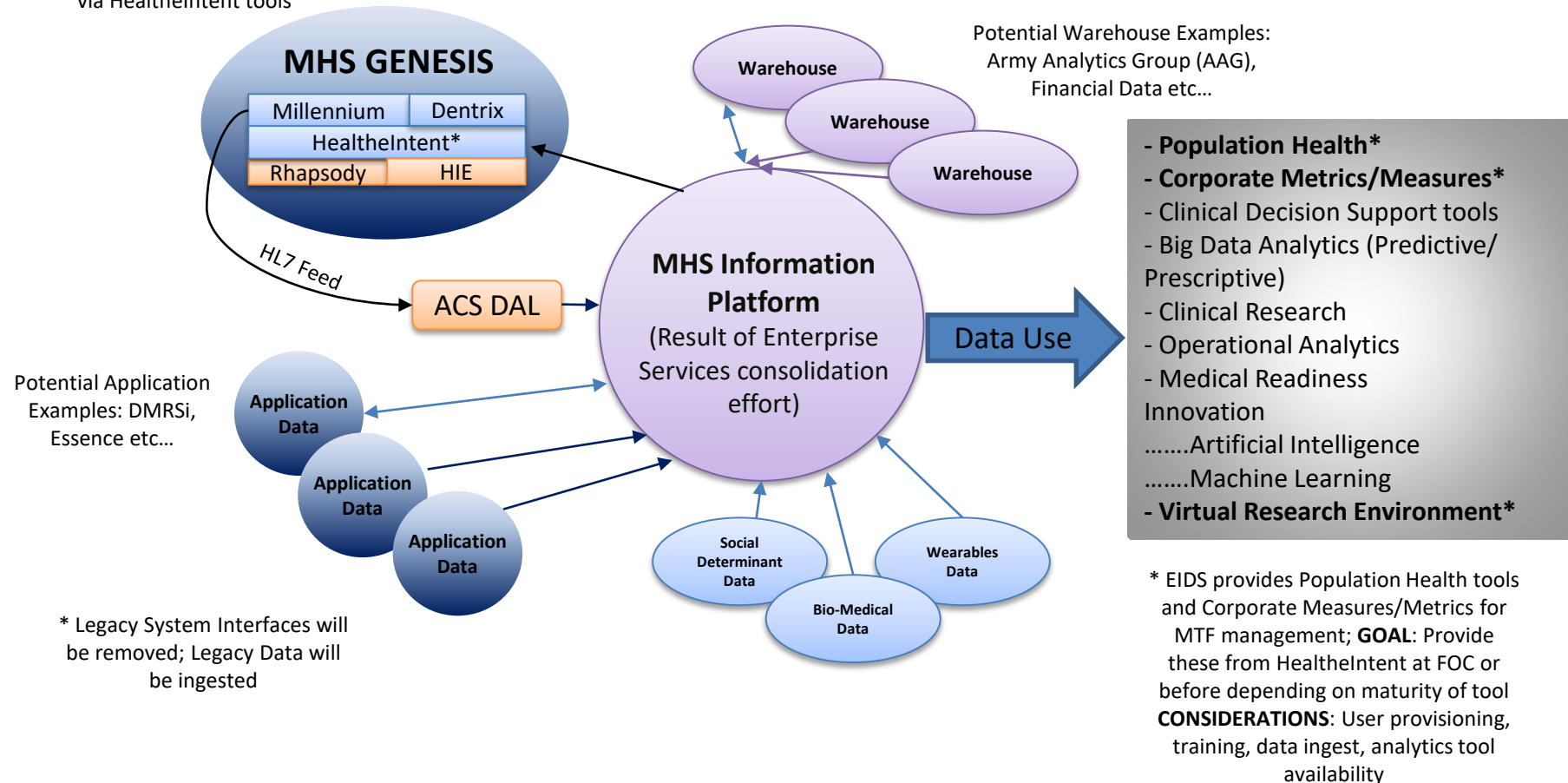


The MHS Information Platform (MIP) is a three-layer Defense Business System for reporting and analysis repository consisting of systems used throughout the MHS from the operational to strategic level. Input from several source systems is aggregated, rationalized and normalized – allowing a range of capabilities for users for near real-time reporting, deep-dive analytics, and statistical analysis. MIP provides clinical information data warehousing (DW) modules, enabling DHA to monitor, extract, and make available clinical/business data from MTFs.

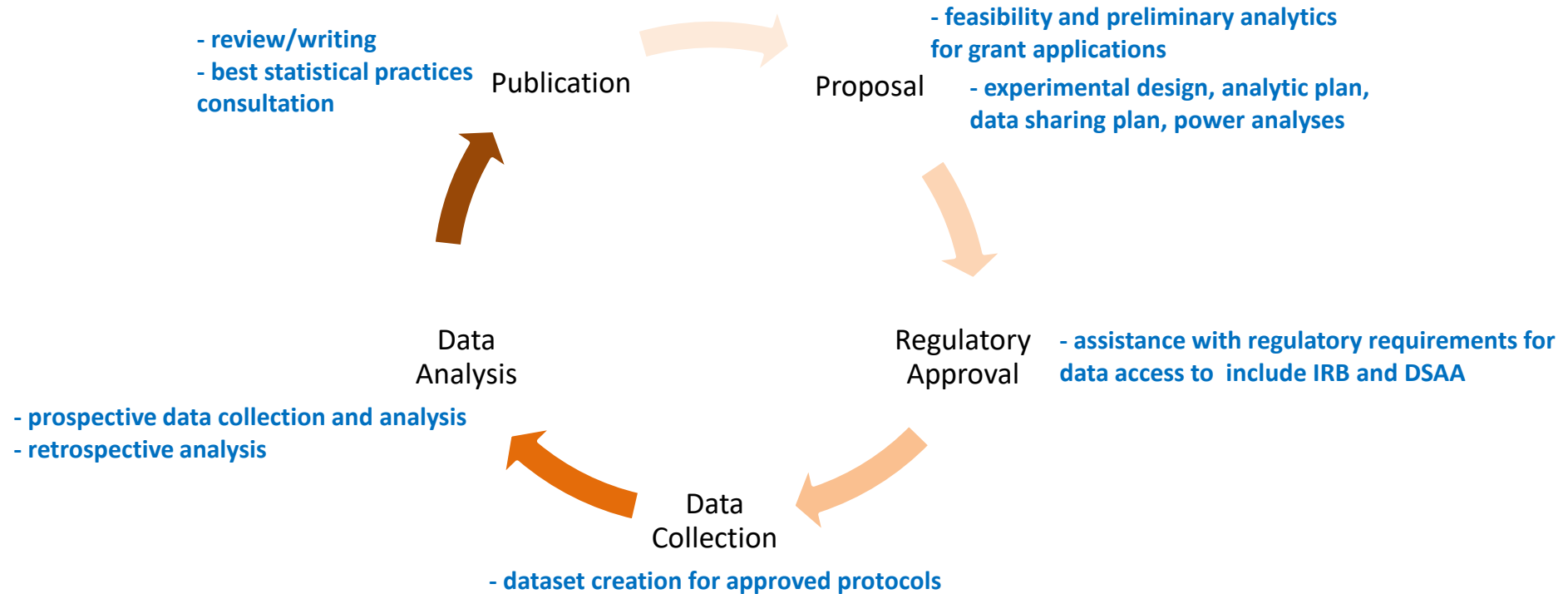


DHA Future-State Data Flow and Use

* Expect 80+% of day to day data needs to be accomplished via HealthIntent tools



Lifecycle support to MHS researchers



- Why do we need one?
 - Often may take 12-24 months to go from hypothesis to data access
 - Exporting of large data sets to non-DoD partners puts us at risk
 - Processes are not streamlined
 - Not a good use of tax payer dollars to fund redundant data centers/enclaves

Benefits of Virtual Research Environment



- Access to data and tools occurs in a centralized, virtual, secure environment
- Common intake process for research requests
- Standardized business rules and de-identification strategy
- Reduced time to approve data requests
- Supports policies/handoff from DHA Privacy Office/HRPO
- More secure:
 - Large data sets no longer exported to external repositories
 - Researchers export results not data from enclave

Next Steps



- Proof of concept-pilot (collaborative effort by many stakeholders:
 - Privacy Office, USUHS, EIDS, and others
- Develop governance process to standardize policies for data access and sharing
- Automate data sharing agreement request forms and processes
- Develop a cost model for resources needed for data request approval and processing, share efficiencies across the Enterprise
- Assess the impact of the Virtual Research Environment on research productivity in the MHS

The USU-Health Services Research Program: Update



Tracey Perez Koehlmoos, PhD, MHA
Associate Professor &
Principal Investigator, HSRP

Agenda

- **Background**
- **Administrative Overview**
- **Activities**
- **Future Directions**
- **Discussion**

Perspective from HA/DHA

- Lack of system-wide health care evidence to support policy and decision making.
- Insufficient health services research capability to analyze MHS data for improving care.
 - Need for a cadre of researchers able to conduct and lead HSR.
 - Collaborations with HSR communities across multiple departments & organizations to optimize research opportunities.
 - Expand opportunities for knowledge translation to improve policy and practice.
- Goal is to have evidence informed policy & decision making.

Need

- The Military Health System (MHS) is transitioning toward high reliability in healthcare. HSR a well identified gap.
- Critical need to become a true learning organization, one that utilizes the wealth of available data to generate knowledge of the system.
- The Military Health System Review stated in their final report (2014) that “although the MHS has a wealth of data, the ability to analyze those data and use the results to guide decision making in quality and patient safety is nascent.”

HSRP Strategic Goals

- Foster a culture of health services research excellence.
- Support researchers in growing and diversifying health services research funding.
- Enhance scholarly output related to health services research.
- Elevate the visibility and importance of health services research.
- Expand collaborations with the health services research community.
- Provide coordination across multiple departments to optimize health services research opportunities.
- Expand opportunities for knowledge translation of research results to improve policy and practice in the MHS.
- Cultivate student research/training platforms in health services research

Administrative

- Organization
 - Administrative core
 - Research core
- Space
- Staffing
- Funding
- Data Access

Building Awareness & Community

- MHSRS 2017
 - Session & Call for proposals launch
- MHSRS 2018
 - Pre-conference session
- AMSUS 2018
- Health Affairs: Special Issue on MHS
- National Science Foundation: Ethical Data Management Interagency Round Table, 10 December 2018

Partnerships

- Infectious Disease Clinical Research Program (ICDRP)
- National Intrepid Center of Excellence (NICoE)
- Extremity Trauma and Amputation Center of Excellence (EACE)
- University of Maryland- Dept of Health Services Administration
- National Bureau of Economics Research

HSR Interest Group

- Build the community of interest for health services research.
- First meeting held in May 2018.
- Bi-monthly meetings/teleconferences
- Platform for sharing training, funding opportunities, research results, build partnerships/collaborations, etc.

Intramural Research

- Global Burden of Disease
- Supporting the Low Back Pain Pathway in the NCR

Capacity Building

- New USU PhD in Public Health (applications: Fall 2018 for Summer 2019)
- Engaging current master/doctoral/fellows/residents in HSR
- Create introductions/partnerships for HSR among early career faculty with senior HSR teams
- Coming Soon:
 - Create learning opportunities for MHS personnel (Grant writing; DSA training; MDR entry level training)
 - Convene consensus session on financial modeling in direct care

Generate HSR: Intramural Funding Call: HSRP in Conjunction w/ the USU Defense Health Horizons Group

- Health Services Delivery
- Quality & Safety
- Economic and Healthcare Finance
- Organizational factors affecting healthcare
- Dissemination and Implementation
- Cross Cutting HSR Topics

HSRP in Conjunction w/ the USU Defense Health Horizons Group

- Funding Opportunity Announcement: MHSRS 2017 (August 2017)
- Letters of Intent Deadline October 2017
- Full Submissions February 2018
- Scientific Review (at NIH) April 2018

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- Letters of Intent

24

- Invited to Submit

19

- Full Proposals Submitted

6

- Final Selection

Period of Performance: Sept 2018-19

Selected Studies

1. Title: Improving treatment and outcomes among soldiers identified with severe alcohol use after return from OEF/OIF/OND deployment

PI: CDR Erich Dietrich, PhD

2. Title: Anesthesia Resident Training in Relation to Tactical Combat Casualty Care Readiness in the Military Health System

PI: Krista Highland, PhD

3. Title: Contraceptive Access during Basic Training

PI: Maj Joshua Smalley

Selected Studies

4. Title: Looking at MHS Surgical Procedures through the Lens of an Episode Grouper

PI: CDR Erich Dietrich, PhD

5. Title: Understanding Provider Influence on Initiating Opioid Prescriptions

PI: Patrick Richard, PhD

6. Title: Range of Practices, Cost and Outcomes of Shoulder Dysfunction across the Military Health System

PI: Jeffery Leggit, MD

HSR: Portfolio Management

- **OSD (Health Affairs) selected/J-9 Funded**
- **HSR in the National Capitol Region: Pilot Test**
 1. *Low Value Care in the National Capitol Region (USU-HSA)
 2. Evaluate the DoD/VA Joint Pain Education Program (JPEP) in the National Capitol Region (DVCIPM)
 3. Pilot Assessment of Using Remotely-Supervised Medics & Corpsmen to Enhance Access to Urgent & Primary Care in the NCR (USU-FM)
 4. Evaluating the Fiscal and Readiness Impacts of Consolidating Care of Complex Patients in the National Capitol Region (USU-HSA)

Future Directions

- Governance Documents/Charter
- New Funding to the HSRP (FY19&20)
- New Call for HSR Proposals (Round 2)
- Priority Setting (DHA or HA, HSOC, Capabilities Based Assessment)
- Galvanizing the Community: training, knowledge translation

Discussion

If you have input, questions or concerns later:

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