Post-Traumatic Stress Innovations: U.S. Military Enterprise Analysis

The Quadruple Aim: Working Together, Achieving Success
Professor Deborah Nightingale
January 26, 2011
**Report Documentation Page**

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A Collaborative Initiative

Michael Dinneen, M.D.
Director, Office of Strategy Management

Deborah Nightingale, Ph.D,
Director

Enabling complex enterprises to effectively, efficiently, and reliably create value in rapidly changing environments

Tenley E. Albright, M.D.,
Director

Promoting a systems-based approach to solving deep-rooted societal issues by engaging experts from a broad range of disciplines both within and outside the scope of a problem.
What is the Opportunity

- Make sense of all psychological health activities
- Ensure that we are getting optimal value from our investment in psychological health initiatives
- Identify opportunities to improve the system of care by filling in gaps, strengthening connections and eliminating redundancy

But, how big is this opportunity?
MHS spending on psychological health nearly doubled between 2007 and 2010.
How complicated is the challenge to rationalize all of the activities related to the management of psychological health?
PH Activities by General Category – Draft List July 2010

Prevention
- BH in Schools with High Risk Students
- Education for High /At Risk Populations
- Family Advocacy / Family Support
- Substance Abuse Education / Counseling pre-dx
- Spiritual Counseling for High Risk Populations
- Embedded PH Assistance pre-dx (COSC / OSCAR)
- Focused MH Training (Anti-Stigma)

Screening
- Screening Programs (PDHA, PDHRA, etc)
- Tele-health Screening Support
- Leader Training in PH Monitoring
- Marital Counseling
- Grief Counseling
- Care Provider Support
- Non-Medical Anon, Counseling (OneSource)

Treatment
- MH Care by MH Providers (Ambulatory, IP)
- MH Care by Non-MH Providers (PC, etc)
- Telehealth - Tx
- Substance Abuse Tx
- IOP
- Residential TX (MH and SA)
- IP Tx
- Pain Management

Maintenance
- Occupational Therapy (OT) for People with MH Disorders
- Transition Services for PH
- Disability Evaluation Service for persons with PH Dx
- Reset Programs
- Deployment Cycle Support Programs
- Substance Abuse Aftercare

Support Groups
- Family Education
- OT for Non-PH Illnesses

Healthy Behaviors
- Total Fitness
- Readiness
- Prevention / Resilience for General Population (Universal Prevention)

Non-Medical Anon, Counseling

Research & Development (R&D)
- Information Technology (IT) to Support TBI
What do we need?

- A whole new way to understand systems, not just activities

- “I would not give a fig for the simplicity this side of complexity, but I would give my life for the simplicity on the other side of complexity.”

Oliver Wendell Holmes
An enterprise is...

“a complex, integrated, and interdependent system of people, processes, and technology that creates value as determined by its key stakeholders.

An enterprise typically consists of multiple organizations (e.g., suppliers, partners, regulators) rather than a single corporation, division, or government unit.”

“The current system is insufficient to meet the needs of today’s forces and their beneficiaries and will not be sufficient to meet the needs of the future.”

- DoD Task Force on Mental Health, 2007

“The Chairman Speaks Out on Struggle with PTSD

“This isn’t just a debt of gratitude. This is a debt that must be repaid because they have sacrificed so much. They have done exactly what this country has asked. They have fought and suffered and their lives have been affected forever.”

Admiral Michael Mullen
Chairman of the Joint Chiefs of Staff
Army Times, 11-26-2008
Determine Strategic Imperative

Articulate the Case for Transformation & Convey Urgency
Focus on Stakeholder Value
Leverage Transformation Gains

Engage Leadership in Transformation

• Cultivate Enterprise Thinking
• Obtain Executive Buy-In
• Establish Executive Transformation Council

A Committed Leadership Team

PLANNING CYCLE

Understand Current State

• Perform Stakeholder Analysis
• Analyze Processes & Interactions
• Perform Enterprise Maturity Assessment
• Assess Current Performance Measurement System

Capabilities & Deficiencies Identified

Envision & Design Future Enterprise

• Create Vision of Future State
• Perform Gap Analysis Between Current and Future States
• Architect "To-Be" Enterprise

Short-Term Corrective Action

Long-Term Corrective Action

Implement & Coordinate Transformation Plan

• Communicate Transformation Plan
• Commit Resources
• Provide Education & Training
• Implement Projects and Track Progress

Nurture Transformation & Embed Enterprise Thinking

• Monitor & Measure the Outcomes
• Nurture Transformation
• Embed Enterprise Thinking
• Capture & Diffuse Lessons Learned
• Synchronize Strategic Planning & Execution Cycles

Implementation Results

EXECUTION CYCLE

Transformation Plan

Create Transformation Plan

• Identify Improvement Focus Areas
• Determine Impact on Enterprise Performance
• Prioritize, Select and Sequence Project Areas
• Develop and Synchronize Detailed Implementation Plans

Alignment Requirements Identified

Alignment

Enterprise Structure and Behaviors

• Reconcile Systems, Policies & Vision
• Align Performance Measurement System
• Align Incentives
• Empower Change Agents

Enterprise Vision

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**LAI-MIT Transformation Roadmap**

**Determine Strategic Imperative**
- Articulate the Case for Transformation & Convey Urgency
- Focus on Stakeholder Value
- Leverage Transformation Gains

**Pursue & Sustain Enterprise Transformation**
- Cultivate Enterprise Thinking
- Obtain Executive Buy-In
- Establish Executive Transformation Council

**Execute Cycle**
- Transformation Plan
- Corrective Action
- Future Enterprise
- Enterprise Vision

**Create Transformation Plan**
- Identify Improvement Focus Areas
- Determine Impact on Enterprise Performance
- Prioritize, Select and Sequence Project Areas
- Develop and Synchronize Detailed Implementation Plans

**Analyze Enterprise Structure and Behaviors**
- Reconcile Systems, Policies & Vision
- Align Performance Measurement System
- Align Incentives
- Empower Change Agents

A Committed Leadership Team
PTSD: A Significant Pathology of War

- Challenges with access to and quality of care
- Challenges with culture and stigma
- Consideration of families

5% to 20% prevalence

Over $2 Billion Invested

Over 125 psychological health programs
“Systems engineering has had an enormous impact in any number of fields, but it is only beginning to be applied in healthcare.

Part of the reason, I suspect, is that so many of the issues in healthcare are difficult to quantify societal questions, such as, should you spend the next marginal dollar on prevention, on research, or on treatment of the stricken?”

Norman Augustine
Retired Chairman & CEO
Lockheed Martin Corporation
Challenge:
Develop innovative recommendations for transforming the military enterprise to better manage post-traumatic stress, and related conditions, in support of our service members and their families.
LAI-MIT Transformation Roadmap

Engage Leadership in Transformation

- Cultivate Enterprise Thinking
- Obtain Executive Buy-In
- Establish Executive Transformation Council

A Committed Leadership Team
Formal Project Kickoff: 9-28-2010

NAVY
Admiral Jonathan Greenert
Vice-Chief of Naval Operations
and
VADM Adam Robinson
Navy Surgeon General

Admiral Mike Mullen
Chairman of the
Joint Chiefs of Staff

AIR FORCE
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Vice Chief of U.S. Air Force
and
LT. General Bruce Green
Air Force Surgeon General

ARMY
General Peter Chiarelli
Vice-Chief of U.S. Army
and
Lt. Gen. Eric B. Schoomaker
Army Surgeon General

Dr. James B. Peake Lt. Gen.(ret)
Fmr. Surgeon General of the Army &
Fmr. Secretary of Veterans Affairs
and
Honorable Togo West
Fmr. Secretary of the Army &
Veterans Affairs

MARINE CORPS
General James Amos,
Commandant
of the Marine Corps
Understand Current State:

- Perform Stakeholder Analysis
- Analyze Processes & Interactions
- Perform Enterprise Maturity Assessment
- Assess Current Performance Measurement System

LAI-MIT Transformation Roadmap
LAI will perform an enterprise analysis of the continuum of services in preventing and managing Post Traumatic Stress and related conditions.

**Three Phases:**

1. Current state analysis
2. Model creation and validation
3. Future scenario planning and recommendations
Current Stakeholder Analysis

Four Areas of Interest

– Stakeholder analysis
– Enterprise organizations and processes
– Performance measurement systems
– Resources and outcomes

Research Activities

- Literature review
- Triangulation
- Gathering available data
- Interviews and site visits
Defining the Enterprise Boundary

*includes reserve components
Key Stakeholder Groups

OSD Leadership

MHS Leadership
- Military Health System Executive Review members (MHSER)
- Senior Military Medical Advisory Council members (SMMAC)
- Integration Councils/IPTs/Workgroups

Service Leadership
- Line Leadership
- Surgeon Generals
- Installation management
- Intermediate commands

Operational
- Unit leaders
- Medics
- Chaplains

Direct Care
- MTF leadership
- Clinics
- Primary care physicians
- Specialists

Purchased Care
- TRICARE regional office
- Managed care contractor
- Individual service provider
  - Doctors
  - Social workers
  - Nurses

Service Members
Families
Units

President

Congress

Media
Holistic approach to the observation of occupational stress-related processes across the military service lifecycle that relate both to service members and their families.
LAI-MIT Transformation Roadmap

**Envision & Design Future Enterprise**

- Create Vision of Future State
- Perform Gap Analysis Between Current and Future States
- Architect “To-Be” Enterprise
LAI will perform an enterprise analysis of the continuum of services in preventing and managing Post Traumatic Stress and related conditions.

Three Phases:

1. Current state analysis
2. Model creation and validation
3. Future scenario planning and recommendations
Planned and Existing Models

PTSD Prevention and Care Components for a Full Continuum of Care

- Prevention and Resilience (Active Duty)
- Identification and Treatment (Active Duty)
- Rehabilitation and Reintegration (Active Duty)
- Identification and Treatment (Veterans)
- Rehabilitation and Reintegration (Veterans)

- PHRAMS Staffing Model (CNA, 2010)**
- Dynamic Model for OIF (Atkinson, Guetz, Wein, 2009)***

- Intent is to build from planned and existing models to develop enterprise-level models for evaluating architectural alternatives and policy development

* Planned
** Existing - planned upgrades
*** Existing – no planned upgrades
• In order to transform an enterprise we need to know not only where we are, but more importantly where we want to be (future state)
• In enterprise value analysis how do we define the “future state” of the enterprise?
• Once we define the future “vision” how do we design the enterprise?
• How do we incorporate the multiple dimensions or “views” at the enterprise level?
Enterprise Architecting Enables Greater Efficiency and Effectiveness

- Effective integration – managing complex interdependencies
- System optimization, not local optimization
- Knowledge-based enterprise capabilities
- Achieving desired future state characteristics
  - Agility
  - Flexibility
  - Reconfigurability
LAI-MIT Transformation Roadmap

**Alignment Requirements Identified**

**Align**

**Enterprise Structure and Behaviors**

- Reconcile Systems, Policies & Vision
- Align Performance Measurement System
- Align Incentives
- Empower Change Agents
Align the PTSI Enterprise

- Match resource allocation to enterprise needs
  - Availability of treatment facilities
  - Adequacy of research and development efforts
  - Accessibility of health care providers
- Align incentives and behaviors
- Holistic alignment of strategic objectives, stakeholder values, enterprise processes and performance measures
### X-Matrix as a Systems Tool for Enterprise Alignment

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**Strategic Objectives**

- Key Processes
- Stakeholder Values
- Metrics

**Stakeholder Value**

**Enterprise Process**
Create Transformation Plan

- Identify Improvement Focus Areas
- Determine Impact on Enterprise Performance
- Prioritize, Select and Sequence Project Areas
- Develop and Synchronize Detailed Implementation Plans
Potential Focus Areas for Improvement

- Refine the value proposition centered around service members and their families
- Determine high-leverage opportunities for improving the continuum of care
- Revise policies and procedures to enhance system performance
Implement & Coordinate Transformation Plan

- Communicate Transformation Plan
- Commit Resources
- Provide Education & Training
- Implement Projects and Track Progress
Nurture Transformation & Embed Enterprise Thinking

- Monitor & Measure the Outcomes
- Nurture Transformation
- Embed Enterprise Thinking
- Capture & Diffuse Lessons Learned
- Synchronize Strategic Planning & Execution Cycles

Long-Term Corrective Action

A Committed Leadership Team

PLANNING CYCLE

Understand Current State

- Perform Stakeholder Analysis
- Analyze Processes & Interactions
- Perform Enterprise Maturity Assessment
- Assess Current Performance Measurement System

Cultivate Enterprise Thinking
- Obtain Executive Buy-In
- Establish Executive Transformation Council

Engage Leadership in Transformation

Pursue & Sustain Enterprise Transformation

Focus on Stakeholder Value
- Leverage Transformation Gains

Determine Strategic Imperative

Articulate the Case for Transformation & Convey Urgency

Monitor & Measure the Outcomes

Synchronize Strategic Planning & Execution Cycles

 captures & diffuses lessons learned
LAI-MIT Transformation Roadmap

**STRATEGIC CYCLE**

- **Determine Strategic Imperative**
  - Articulate the Case for Transformation & Convey Urgency
  - Focus on Stakeholder Value
  - Leverage Transformation Gains

- **Pursue & Sustain Enterprise Transformation**

**Engage Leadership in Transformation**

- Cultivate Enterprise Thinking
- Obtain Executive Buy-In
- Establish Executive Transformation Council

**A Committed Leadership Team**

**PLANNING CYCLE**

- **Understand Current State**
  - Perform Stakeholder Analysis
  - Analyze Processes & Interactions
  - Perform Enterprise Maturity Assessment
  - Assess Current Performance Measurement System

- **Envision & Design Future Enterprise**
  - Create Vision of Future State
  - Perform Gap Analysis Between Current and Future States
  - Architect "To-Be" Enterprise

- **Execute Transformation**
  - Perform Detailed Implementation Plans

**EXECUTION CYCLE**

- **Create Transformation Plan**
  - Identify Improvement Focus Areas
  - Determine Impact on Enterprise Performance
  - Prioritize, Select and Sequence Project Areas
  - Develop and Synchronize Detailed Implementation Plans

- **Align Enterprise Structure and Behaviors**
  - Reconcile Systems, Policies & Vision
  - Align Performance Measurement System
  - Align Incentives
  - Empower Change Agents

**Implementation Results**

- **Nurture Transformation & Embed Enterprise Thinking**
  - Monitor & Measure the Outcomes
  - Nurture Transformation
  - Embed Enterprise Thinking
  - Capture & Diffuse Lessons Learned
  - Synchronize Strategic Planning & Execution Cycles

- **Implement & Coordinate Transformation Plan**
  - Communicate Transformation Plan
  - Commit Resources
  - Provide Education & Training
  - Implement Projects and Track Progress

- ** Strategic Implications of Transformation**

**Long-Term Corrective Action**

**Short-Term Corrective Action**

**Alignment Requirements Identified**

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35
Post Traumatic Stress Innovations: U.S. Military Enterprise Analysis

Challenge:
Develop innovative recommendations for transforming the military enterprise to better manage post-traumatic stress, and related conditions, in support of our service members and their families

LAI will perform an enterprise analysis of the PTSD process.
Three Phases:
1. Current state analysis
2. Model creation and validation
3. Future scenario planning and recommendations

Potential Outcomes:
- Increased understanding of the total system, including stakeholders and system performance
- Determination of high-leverage opportunities for improving the total systems
- Examination of policy and treatment implications
MIT Lean Advancement Initiative Research Team

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Thank you!

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