

2011 Military Health System Conference

A Provider's Perspective

Utilizing Deployed Information Technology to Care for Our Wounded Warriors

The Quadruple Aim: Working Together, Achieving Success

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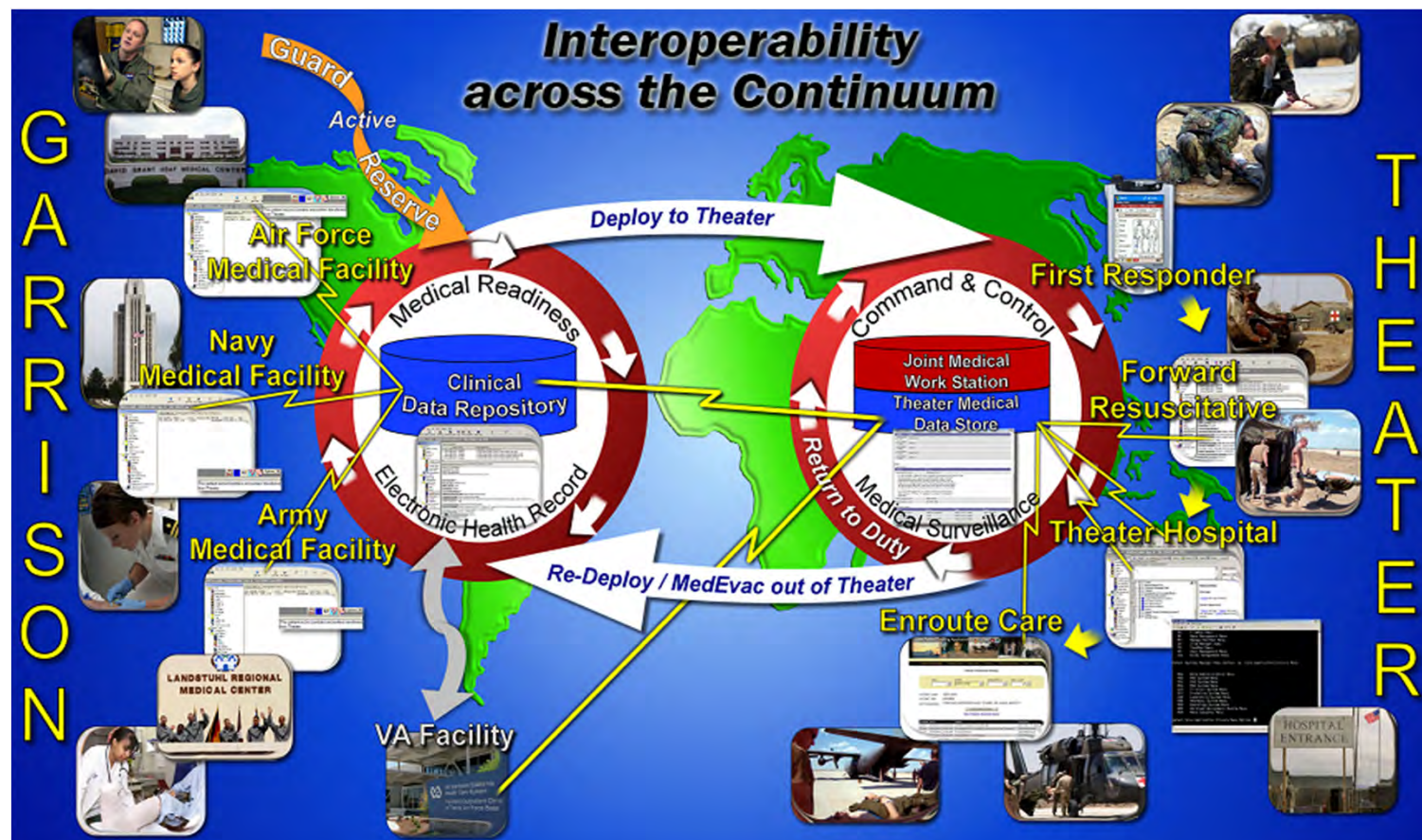
24 January 2011



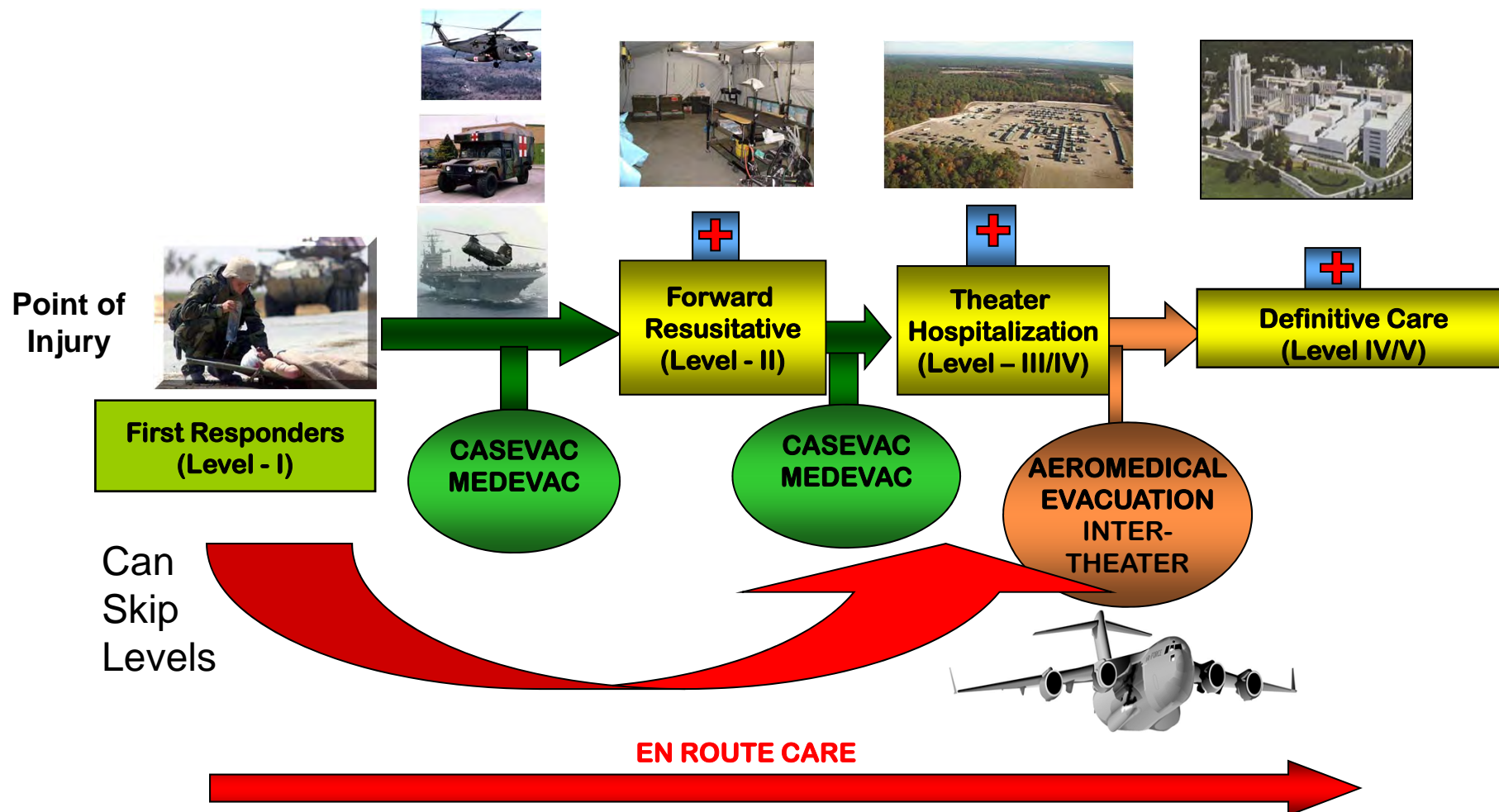
The Joint Staff, J4/HSSD

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 24 JAN 2011		2. REPORT TYPE		3. DATES COVERED 00-00-2011 to 00-00-2011	
4. TITLE AND SUBTITLE A Provider's Perspective: Utilizing Deployed Information Technology to Care for Our Wounded Warriors				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) The Joint Staff, J4/HSSD, Washington, DC, 20318				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES presented at the 2011 Military Health System Conference, January 24-27, National Harbor, Maryland					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 18	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

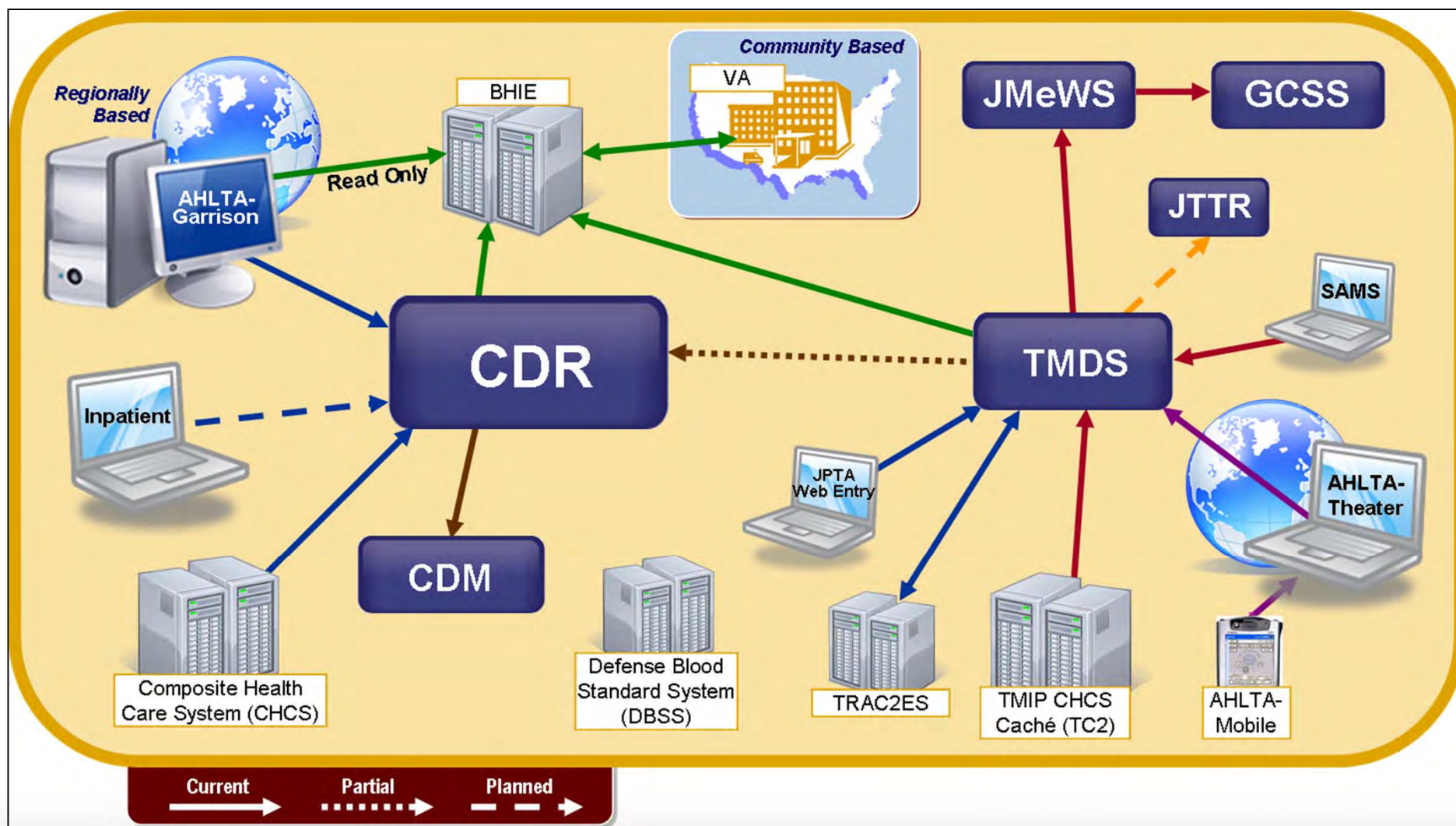
Continuum of Care



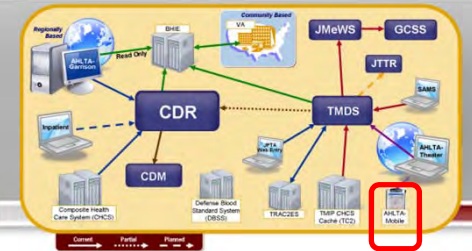
Treatment/Patient Movement Flow



EHR Data Flow to Support the Continuum of Care



AHLTA-Mobile...*technology* for first responders



Expanded tools for first responders, including documentation, data access, reference libraries and medical resources



■ Key Features

- Point of injury clinical documentation (now including traumatic brain injury)
- Health history information, including allergies and medical readiness data
- Medical references (pharmacy library, Thomson Clinical Reference)
- Data feed to AHLTA-Theater

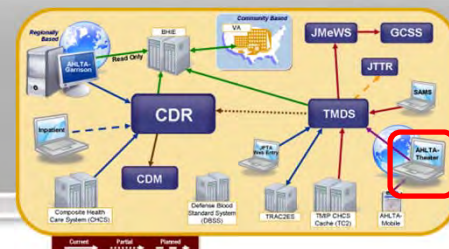
■ Key Benefits

- Helps ensure accuracy of information with automated medical coding
- Enables providers to access information at any location supporting the highest level of care
- Improves visibility of documented Level 1 care

■ Key Issues

- Training
- Battery Life
- Durability

AHLTA-Theater (Block 2, Release 1) ...outpatient documentation solution



Extends the sustaining-base electronic medical record (AHLTA) capability, look and feel to the Theater of Operations

■ Key Features

- Low and no communication environment (store and forward)
- Interfaces with SAMS, TC2 and AHLTA-Mobile
- Bed and Order Management
- Theater Admin/Theater Security (create clinics, manage users)
- Able to import patient demographic data from Authoritative Data Source
- Drug-Drug/Drug-Allergy interaction screening
- Alternate input method

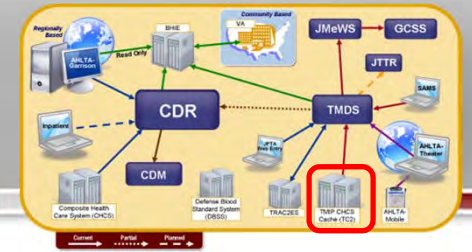
■ Key Benefits

- Improve system availability, reliability and sustainability
- Enhance the delivery of patient care
- Enhance the ability to provide complete and accurate of documentation of patient care at every echelon of care

■ Key Issues

- Training
- Connectivity
- Duplicate Patients
- First Responder Documentation

TMIP Composite Health Care System (CHCS) Cache (TC2)...*inpatient documentation* *solution*



Provides documentation for Theater inpatient healthcare and ancillary services order-entry and result-reporting in the deployed environment



2011 MHS Conference

■ Key Features

- Provides laboratory, radiology and pharmacy ordering and results retrieval capabilities; enables users to schedule outpatient clinic/radiology procedures
- Uses the TMIP Framework for transmission of data to TMDS
- Clinical Notes for different procedures including admission, discharge and patient progress, transportable Clinical Patient Records
- TC2 has processed 48,129 total records from June 2007 to present

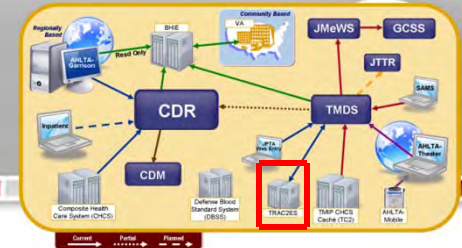
■ Key Benefits

- Enhanced Inpatient/Ancillary Continuity of Care
- Enables the Deployed Theater to achieve a paperless Inpatient Record
- Increased clinical and administration efficiency by providing clinical documentation capabilities

■ Key Issues

- Training
- Business Processes

TRANSCOM Regulating and Command & Control System (TRAC²ES)...global patient movement solution



Enables joint global patient movement, planning, tracking and Command and Control (C²) within (intra) and between (inter) theaters



■ Key Features

- Links originating and destination MTFs with medical evacuation transportation assets and the C² infrastructure
- Provides the ability to plan and manage end to end patient movement
- Supports strategic and tactical operations in peacetime and contingency environments

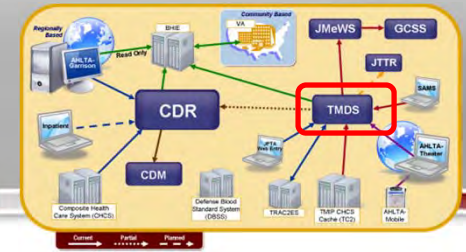
■ Key Benefits

- Maintains continuous global visibility and awareness of patients and the patient movement system
- In transit visibility (ITV)
- Combines transportation, logistics and clinical decision elements into seamless patient movement system

■ Key Issues

- Not an EHR
- Enroute Care Documentation

Theater Medical Data Store (TMDS)...central Theater medical data collection and distribution point



Expanded view of health information across all levels of care with enhancements to integrated functionality

■ Key Features

- Capability to view, track, and manage ill or injured patients as they move through Theater levels of care, sustaining-base MTFs, and facilities shared with VA
- Ability to access Theater medical data and pass medical data to the Clinical Data Repository
- Services-oriented architecture
- Interface for benefits assessment
- Shares information with command and control systems for medical situation awareness

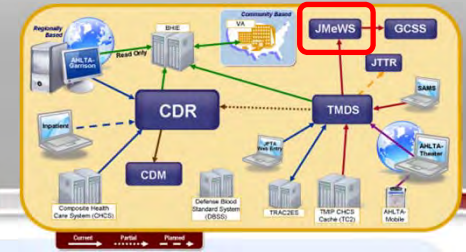
■ Key Benefits

- Allows VA to access Theater medical data for a patient who has entered a VA medical facility
- Provides central location for all medical data generated in Theater...integrated into the electronic health record

■ Key Issues

- Training
- Awareness

Joint Medical Workstation (JMeWS)...web-based medical command and control



Continued support for medical command and control (C2) requirements with JMeWS



■ Key Features

- Web-based application that provides medical information and unit status and readiness to medical leadership from the unit level to the Joint Task Force, Combatant Commanders and to Service/DOD Components.
- Ad hoc reports based on patient data
- Medical unit readiness reporting and aggregation capability (Annex Q reporting)

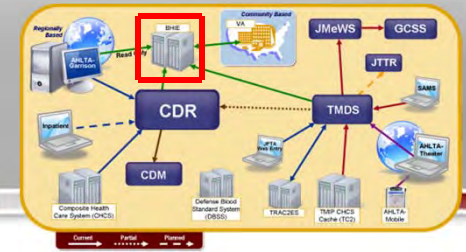
■ Key Benefits

- Common operational picture that combines medical facility readiness and status information displaying on a map
- Symptom-based disease detection Customizable disease surveillance
- Diagnosis-based disease detection and Disease Non Battle Injuries (DNBI) with Automated DNBI reporting
- Enhances situational awareness and decision making for Joint Planners and Command Control Staff
- Displays data that is required by planners and operational staff at respective levels

■ Key Issues

- Training
- SIPR Availability
- Awareness
- Data Quality

Bidirectional Health Information Exchange (BHIE)...secure real time display of viewable health data between DOD/VA



Allows DOD and VA providers to view clinical information in real time for patients who receive care in either agency health system

- SHARE Web Portal (stand alone web application)
- AHLTA-BHIE Data Viewer (viewer within AHLTA)

■ Key Features

- ▣ Encounters/clinical notes
- ▣ Problem lists/procedures/diagnoses
- ▣ Vital signs
- ▣ Outpatient medications, laboratory results, radiology reports and allergies
- ▣ Theater level clinical data from TMDS
- ▣ Inpatient documentation from Essentris®
- ▣ Family histories/social histories/other histories
- ▣ Questionnaires

■ Key Benefits

- ▣ Enhance the provision of care to Wounded Warriors
- ▣ Reduce the need to exchange paper records with the VA
- ▣ Enhance the delivery of patient care
- ▣ Enhance readiness
- ▣ Increase clinical and administrative efficiency

■ Key Issues

- ▣ Training
- ▣ Awareness

Medical Situational Awareness in Theater (MSAT)



- Geospatial Information System incorporating a 3-D viewer
- Global medical information and medical reference
- Health threat alerts
- CBRN alerts
- Disease surveillance data
- Current and forecasted weather

Medical Situational Awareness in Theater (MSAT) (Cont'd)



- Personnel Location
- Medical Unit Location
- Single Sign-On interface with Global Combat Support System – Joint (GCSS-J)
- Publishing and consuming of web services via Net-Centric Enterprise Services (NCES)

Deployed October: 139 Unique Visitors in November

MSAT Portal



Medical Situational Awareness in the Theater

MSAT Demonstration

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Backup Slides



Backup

Supporting Beneficiary Care Defense Medical Logistics Standard Support (DMLSS)



DMLSS enabled \$4.3B in pharmacy and medical surgical purchases for MHS facilities throughout the DoD and the combat Theater



■ Key Features

- Implements just-in-time logistics, eliminating the need to maintain large pharmaceutical and medical/surgical inventories at the wholesale level
- Allows users to select and order the best value item required
- Located at every DoD health care facility worldwide

■ Key Benefits

- Standardizes medical logistics management among the services
- Reduces the time spent on logistics planning and management
- Improves the effectiveness, efficiency and quality of health care delivery

“The receipt of goods, once ordered, is FAST! I’m very satisfied with that.”

Anonymous DMLSS User, 2009 TMA Customer Satisfaction Survey

Supporting Beneficiary Care Patient Movement Items Tracking System (PMITS)



In FY09, PMITS supported over 2,000 aeromedical evacuations. No mission was cancelled or delayed due to a lack of PMI equipment



■ Key Features

- Tracks the Patient Movement Item (PMI) equipment used during aeromedical evacuation missions
- Provides hand-held scanners and bar code technology to capture the movement of the PMI inventory

■ Key Benefits

- Timely and accurate identification of PMI equipment at each site
- Supports less investment in inventory while improving equipment availability

“Never encountered a system failure”

Anonymous PMITS User, 2009 TMA Customer Satisfaction Survey