USU's Center for Global Health Engagement: Championing Innovation in GHE Research

CAPT Glen Diehl
Director, CGHE

3 June 2016
• The DoD has been involved in GHEs for over a century:
  ➢ Traditionally viewed through lens of force health protection
  ➢ First overseas medical research laboratories established after WWII
• Over time, the DoD recognized linkages between global health and security
• In the past decade, infectious disease crises and natural disasters have caused severe disruption and instability across the globe (e.g., HIV, SARS, Ebola, MERS-CoV, and in 2016, Zika)
• Not in our interest to allow that instability to grow, especially when we have capability to mitigate
We will advance the security of the United States, its citizens, and U.S. allies and partners by:

• Developing a global capacity to prevent, detect, and rapidly respond to biological threats like Ebola through the Global Health Security Agenda.

• Leading efforts to reduce extreme poverty, food insecurity, and preventable deaths with initiatives such as Feed the Future and the President’s Emergency Plan for AIDS Relief.”
Security Cooperation

All DoD interactions with foreign defense establishments to build defense relationships that promote specific US security interests, develop allied and friendly military capabilities for self-defense and multinational operations, and provide US forces with peacetime and contingency access to a host nation.

Source: DoD Directive 5132.03
As established by OSD "Policy Guidance for DoD GHE" dated 15 May 2013, GHE comprises foreign engagement activities by DoD with the armed forces, civilian authorities, or other agencies of a partner nation (PN). DoD GHE activities establish, reconstitute, maintain, or improve capabilities or capacities of the PN's military, civilian health sector, and/or DoD in order to achieve USG national security objectives and DoD strategic objectives.

_Draft charter for DoD GHE Council, December 2015_
A powerful national security instrument that supports USG efforts around the world through:

**STABILITY**
GHE contributes to social well-being, rule of law, governance, economics, and security

**COOPERATION**
GHE enhances collaboration with foreign ministries and civil structures

**CAPACITY**
GHE is leveraged to develop partner capabilities to increase self-reliance
From FY01-FY13, approximately $1.18 billion was budgeted for 7,836 OHASIS\textsuperscript{1} engagements, of which $332 million (28%) was allocated to 2,818 GHEs in 140 Countries

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|l|l|}
\hline
\textbf{TOTAL NUMBER OF ENGAGEMENTS \hspace{2cm} BY CCMD} & \textbf{PERCENT OF GHEs BY CCMD} & \textbf{TOTAL FUNDING BY CCMD (millions USD)} & \textbf{PERCENT OF FUNDING GOING TO GHEs BY CCMD} \\
\hline
AFRICOM & 1,584 & 37.37\% & 162.1 & 40.06\% \\
CENTCOM & 842 & 41.45\% & 309.3 & 25.41\% \\
EUCOM & 975 & 38.15\% & 94.2 & 24.57\% \\
PACOM & 1,595 & 31.79\% & 316.3 & 26.15\% \\
SOUTHCOM & 2,840 & 35.04\% & 289.0 & 28.58\% \\
\textbf{ALL COCOMS} & \textbf{7,836} & \textbf{35.72\%} & \textbf{1,180.0} & \textbf{28.14\%} \\
\hline
\end{tabular}
\end{table}

\textsuperscript{1} Overseas Humanitarian Assistance Shared Information System
The CGHE has the opportunity to meet Joint requirements and support CCMDs by linking requirements to capabilities and missions sets:

### Alignment to Requirements, Capabilities & Missions

<table>
<thead>
<tr>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal Joint Task List (and Service-specific Mission Essential Tasks Lists)</td>
</tr>
<tr>
<td>Joint Capability Areas</td>
</tr>
<tr>
<td>Statutory and Congressional Requirements</td>
</tr>
</tbody>
</table>

### Capability Development and Integration (JCIDS Process)

- Capabilities Based Assessment
- Integrated Capabilities Document
- DOTMLPF Change Recommendation
- Joint Requirements and Oversight Council (JROC) Approval

### Missions

- Counter Terrorism/Irregular Warfare
- Deter/Defeat Aggression
- Counter WMDs
- Cyberspace Security
- Nuclear Deterrence
- Homeland Defense
- Stabilizing Presence
- Stability/Counter Insurgency
- Humanitarian Assistance/Disaster Response
The CGHE has the opportunity to support missions that employ GHEs:

<table>
<thead>
<tr>
<th>Missions</th>
<th>GHEs</th>
<th>Examples of GHE Activities</th>
<th>USU Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counter Terrorism/Irregular Warfare</td>
<td>✗</td>
<td>• HN Military and Civilian Support to Civil Authorities&lt;br&gt;• MEDCAP, DENTCAP, VETCAP</td>
<td>✗</td>
</tr>
<tr>
<td>Deter/Defeat Aggression</td>
<td>✗</td>
<td>• Subject Matter Expert Exchanges&lt;br&gt;• Forward Presence in support of CCMD &amp; Service Components</td>
<td>✗</td>
</tr>
<tr>
<td>Counter Weapons of Mass Destruction</td>
<td>✗</td>
<td>• Counter Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE) Capabilities&lt;br&gt;• DTRA’s Cooperative Biological Engagement Program&lt;br&gt;• Infectious Disease Surveillance Programs&lt;br&gt;• DoD Overseas Laboratory Activities</td>
<td>✗</td>
</tr>
<tr>
<td>Cyber-space Security</td>
<td>✗</td>
<td>• Counter CBRNE Capabilities</td>
<td>✗</td>
</tr>
<tr>
<td>Nuclear Deterrence</td>
<td>✗</td>
<td>• Public Health, Disease Surveillance, and Prevention Efforts&lt;br&gt;• Public Health and Environmental Health Education Programs&lt;br&gt;• HIV/AIDS Prevention</td>
<td>✗</td>
</tr>
<tr>
<td>Homeland Defense</td>
<td>✗</td>
<td>• Direct Action Programs (i.e., MEDCAPs, DENTCAPs, VETCAPs)&lt;br&gt;• Support to HN Vaccination Programs&lt;br&gt;• Sleeping Net Distribution Programs</td>
<td>✗</td>
</tr>
<tr>
<td>Stabilizing Presence</td>
<td>✗</td>
<td>• Health-Related Engineering Projects (i.e., water, sanitation, and vector control)&lt;br&gt;• Clinic Construction and Equipping&lt;br&gt;• Health Training to HN Medical Personnel</td>
<td>✗</td>
</tr>
<tr>
<td>Stability and Counter Insurgency</td>
<td>✗</td>
<td>• Humanitarian Assistance&lt;br&gt;• Foreign Disaster Relief&lt;br&gt;• Humanitarian Civic Assistance&lt;br&gt;• Disaster Preparedness Activities</td>
<td>✗</td>
</tr>
<tr>
<td>Humanitarian/Disaster Response</td>
<td>✗</td>
<td></td>
<td>✗</td>
</tr>
</tbody>
</table>
Evolving from its predecessor, the Center for Disaster and Humanitarian Assistance Medicine (CDHAM), the Center for Global Health Engagement (CGHE) has an expanded mission and vision:

**Mission**

*Lead, integrate and synchronize USU's Global Health Engagement contributions to the Joint Force, Combatant Commands, Services, the Military Health System (MHS) and ultimately to national security objectives*

**Vision**

*By the end of 2020, CGHE will be internationally recognized as the pre-eminent U.S. Government (USG) institution for the development of effective GHE throughout the DoD and the Uniformed Services*
CGHE Organizational Structure

USU President

CGHE

Doctrine and Strategic Partnership

Training and Professional Development

Operations and Joint Force Support

Research

Assessment, Monitoring and Evaluation

KEY

USU President

CGHE Director

CGHE Divisions
Learning to Care for Those in Harm's Way

CGHE: A Results-Driven Center

**Division**

**Doctrine and Strategic Partnership**
- Develops and fosters GHE doctrine
- Serves as the coordinating and convening agent of relevant stakeholders

**Training and Professional Development**
- Designs and delivers GHE course curricula to US military personnel

**Operations and Joint Force Support**
- Supports key stakeholders in executing programs and disseminating resulting best-practices

**Research**
- Fosters GHE research proposals and collaboration opportunities
- Satisfies strategic priorities to improve resilience

**Assessment, Monitoring and Evaluation**
- Delivers strategic, operational and tactical-level assessments to determine GHE effectiveness
- Builds and maintains a GHE data repository

**Goals**

**CGHE:**
- Functions as a Hub of Knowledge
- Provides resource advocacy
- Conducts training, assessment, & coordination activities
- Bolsters US GHE efforts
- Supports the Warfighter

**Readiness • Value • Support**
• The emerging importance of GHEs as a desired set of capabilities for CCMDs, Services and other executing Agencies has led to a shift to a more programmatic-focused research plan.

• To address GHE research capability gaps, CGHE is currently supporting DoD efforts to develop a GHE-specific research program and conduct a Joint GHE Capabilities-Based Assessment (CBA).
With direction and support from OASD(HA), DHA, RDA, and USU, CGHE is employing a programmatic-focused research strategy for funding GHE research.

CGHE’s Research Division aims to:

1. Foster a culture of GHE research excellence in areas of military relevance impacting the Warfighter
2. Support researchers in growing and diversifying GHE research funding
3. Enhance GHE knowledge development and dissemination among USU students, faculty and the wider Global Health community
CGHE is currently conducting a DoD GHE CBA to develop capability requirements for GHE activities; identify and prioritize capability gaps/shortfalls; and recommend suitable, feasible, and acceptable GHE solutions.

Objectives:

• Enhance CCMD efforts to achieve stability across the globe through medical GHE activities
• Improve the Joint Force’s ability to plan, prepare, execute, and assess GHE activities in support of global military activities and operations
• Improve the readiness posture of the Services’ medical assets that support GHE
CGHE is a leader in educating DoD and non-DoD partners in GHE planning, initiation, and sustainment.

Our primary goal is to develop and implement GHE training to prepare MHS professionals and students for the development and conduct of GHE activities.

Current Trainings include:

- Fundamentals of Global Health Engagement (FOGHE)
- Global Health Strategies for Security (GHSS)
- Health Context, Culture, and Communication in Global Health
- Military Medical Humanitarian Assistance Course (MMHAC)
CGHE Operations & Joint Force Support

• CGHE provides support services and guidance to DoD, USG and international stakeholders in the GHE design, planning and execution

• Examples of CGHE program development and execution:

  – Defense Threat Reduction Agency (DTRA) Cooperative Biological Engagement Program (CBEP)
  – U.S. Africa Command Disaster Preparedness Program (DPP)
  – U.S. Pacific Command Pacific Asia India Resilience - Disaster Preparedness Initiative (PAIR-DPI)
CGHE works to ensure coordination and development of GHE capabilities and programmatic planning:

- Expand medical readiness to improve the health and safety while building trust and deepening relationships worldwide
- Enhance interoperability
- Serve as a knowledge hub for strategic, operational, inter-agency, academic, and research organizational partners and collaborators
- Translate lessons learned to inform policy, requirements, resources and processes for future efforts
- Further align activities to DoD GHE policy guidance
- Extend programmatic coordination and execution
- Provide a range of professional development, training and assessment capabilities
Almost all CCMDs are using rehabilitative medicine as a tactical activity included in GHE (SOUTHCOM, NORTHCOM, CENTCOM, PACOM and EUCOM)

Rehabilitative medicine provides a real-time practical application of GHE efforts

Shows good will to partner nations and builds capacity in high demand surgical areas when provider shortage is prominent
• GHE is a major pillar supporting the DoD and CCMDs’ vision and efforts to partner around the world

• GHE enhances Warfighter Readiness by providing a real world opportunity for training, education and skill building

• CGHE is well positioned to lead, integrate and synchronize GHEs across USU, the Uniformed Services and the greater DoD umbrella

• Rehabilitative Medicine is an important GHE tool to enhance Partner Nation capabilities
QUESTIONS?
Additional questions?

**Doctrine and Strategic Partnership Division:**
Jane Greulich, Division Manager
Office: 301-294– 1483
Email: jgreulich@cghe.org

**Research & Assessment, Monitoring and Evaluation Divisions:**
Felicia Monahan, Division Manager
Office: 301-294-1469
Email: fmonahan@cghe.org

**Training and Professional Development & Operations and Joint Force Support Divisions:**
Scott Zuerlein, Division Manager
Office: 301-294-1485
Email: szuerlein@cghe.org
Annex
Rehabilitative Medicine in GHE: The MEDRETE example

• U.S. military personnel conducting medical readiness training exercises since Oct. 1993
• > 300 missions, > 326,000 medical patients and > 69,670 dental patients
• These exercises, commonly called MEDRETEs, support 1,000s of people throughout Central America and the Caribbean
• MEDRETEs support humanitarian and civic assistance operations to enhance U.S. and Central American relations and support medical training with host nation military forces, as well as government and civilian organizations.

• Area of Responsibility
  • 7 countries
  • Total area: 521,000 km
    (~ size of TX)
  • Total coastline: 6,452 km
    (~ 1/3 of US)
  • Operate outside our AOR
    (Peru, Haiti, Dom Rep...)

• Demographics
  • 42 million people
  • Median age: 24 yrs
  • Life expectancy: 73 yrs
  • 47% population below poverty line
  • 35 million Spanish speakers (12 other languages; 23 Amerindian dialects)
  • 10 Ethnic groups: Mestizo is majority ethnic group
Generated from the interest of US Military Medical Centers and units to work on surgical specialties with traumatic injuries similar to those seen in war or disaster response missions whose main objective is to restore function. These include but are not limited to:

**Orthopedics:** focusing mainly on limb salvage, hand plus upper limb traumatic and congenital deformity reconstruction, foot and ankle surgery, hip dysplasia correction, tendon transfer, tendon and nerve grafting, flaps, among many other.

**Urology:** Urethral stricture reconstruction with end to end or buccal mucosa urethroplasty, pediatric urology, uro-gynecological reconstruction.

**Otolaryngology:** Include tympanic membrane reconstruction, mastoidectomies and neuro-otology procedures to restore hearing derived from traumatic, and infectious conditions.

**Plastic & Reconstructive Surgery:** Cleft lip, Cleft Palate, burn scar releases.

**General Surgery:** Multiple conditions from elective to emergency general surgery procedures conducted twice a week all year round with Mobile surgical team assigned to MEDEL JTF-Bravo

**Ophthalmology:** Cataract surgery, oculoplastics with orbit and lid reconstruction plus strabismus correction.
Benefits include:

For DoD: Real world Medical Readiness Training Exercises

Described by many as one of their highlight in their military career

Senior and seasoned surgeons and O.R. personnel share valuable surgical techniques with younger staff, residents and others that might not have had a similar opportunity and will be required to deploy in the near future

Professional exchange with local medical personnel

- For US Embassy: Shows good will to partner nation and High visibility for US Ambassador

Helps achieve local engagement plan

Builds local sustainable capacities

- For Partner Nation: Support in surgical areas in high demand and shortage of providers

Opportunity to enhance residency programs and CME

Restore function and reincorporate individuals to productive life and workforce