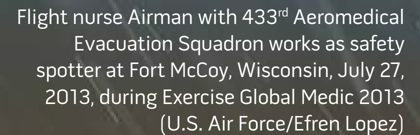

Flight nurse Airman with 433rd Aeromedical Evacuation Squadron works as safety spotter at Fort McCoy, Wisconsin, July 27, 2013, during Exercise Global Medic 2013 (U.S. Air Force/Efren Lopez)

Global Mental Health
Optimizing Uniformed Services Roles

By Brian W. Flynn, Joshua C. Morganstein, Robert J. Ursano, Darrel A. Regier, James C. West, Gary H. Wynn, David M. Benedek, and Carol S. Fullerton

Brian W. Flynn, Ed.D., is Associate Director of Health Systems in the Center for the Study of Traumatic Stress (CSTS) and Adjunct Professor of Psychiatry in the Department of Psychiatry at the Uniformed Services University (USU). Dr. Joshua C. Morganstein is Assistant Professor and Assistant Chair in the Department of Psychiatry and Scientist at CSTS. Dr. Robert J. Ursano is Professor of Psychiatry and Neuroscience and Chairman of the Department of Psychiatry at USU. Dr. Darrel A. Regier is Senior Scientist at CSTS in the Henry M. Jackson Foundation for the Advancement of Military Medicine and Department of Psychiatry at USU. Commander James C. West, USN (Ret.), MD, Medical Corps, is Assistant Professor of Psychiatry and Scientist at CSTS. Lieutenant Colonel Gary H. Wynn, USA (Ret.), MD, Medical Corps, is Assistant Professor and Assistant Chair in the Department of Psychiatry and Scientist at CSTS. Colonel David M. Benedek, USA (Ret.), MD, Medical Corps, is Professor of Psychiatry and Neuroscience and Associate Director/Senior Scientist at CSTS. Dr. Carol S. Fullerton is Research Professor in the Department of Psychiatry and Scientific Director of CSTS.

Mental health considerations in the context of global health include an extensive variety of elements and constitute complex and wide-ranging topics. Three perspectives are important to consider. First, in the field of global mental health, direct patient care is not the only role that should be considered important. Second, this article is inclusive of not only military Services, but uniformed services as well. A true uniformed services approach, one that includes

the Commissioned Corps of the U.S. Public Health Service (USPHS), is essential to tackle global health challenges. Third, global health activities in the mental health field have been taking place for decades. Therefore, examples that represent important historic landmarks as well as current activities are included. These examples demonstrate important lessons as well as the diversity of mental health contributions to global health.

Mental Health Around the World

"There is no health without mental health." In making this bold statement as the foundation for its groundbreaking *Mental Health Action Plan 2013–2020*, the World Health Organization (WHO) reminds us that mental health is a fundamental global health issue.[1] Consider the following excerpts from that report:

- "Depending on local context, certain individuals and groups in society may be placed at higher risk of experiencing mental health problems." The report mentions such factors as poverty, chronic health conditions, child and elderly maltreatment and neglect, and human rights violations.
- "Mental disorders often affect, and are affected by, other diseases such as cancer, cardiovascular disease, and HIV infection/AIDS. Taken together, mental, neurological, and substance abuse disorders exact a high toll, accounting for 13 percent of the total global burden of disease in the year 2004."

How have we come to such dramatic and global conclusions? In 1996, the WHO and World Bank published the landmark study *The Global Burden of Disease* (GBD).[2] It quantified for the first time the mortality and disability from diseases, injuries, and risk factors in 1990 with projections to 2020. Among the most striking findings were that mental and addictive disorders occupied *five of the leading causes of disability in the world*, including unipolar major depression, alcohol use, bipolar disorder, schizophrenia, and obsessive-compulsive disorder—with unipolar major depression constituting the leading cause of disability worldwide.

The levels of disability associated with mental disorders in the United States have shown that one-third of all the disability days "out-of-role" associated with chronic-recurrent health problems are due to mental disorders.[3] The societal costs of anxiety disorders alone in the United States throughout the 1990s exceeded $42 billion.[4]

After the GBD report, the WHO recognized the importance of mental disorders for public health and economic development by devoting an entire annual report to mental health, *The World Health Report 2001—Mental Health: New Understanding, New Hope*.[5] The conclusions of this historic report were that there can be no health without mental health, and recommendations were provided for initiating more treatment in primary care and community settings, involving families and consumers, and linking with other sectors including education, labor, welfare, and the criminal-justice system. With support from the National Institutes of Health (NIH) and many international organizations, the WHO has followed up with a program of international surveys of mental disorders in over 30 countries to document in greater detail the types of disorders and levels of severity and disability associated with these conditions. In 2014, the WHO updated its findings and recommendations, adding to and emphasizing the multitude of evidence for increased attention to mental health issues worldwide.

In his foreword to the GBD report, William Foege, former director of the Centers for Disease Control and Prevention (CDC), noted:

If knowledge is power, the field of public health has remained incredibly weak. Compared with the extensive information to a clinician for a specific patient, collective knowledge about the health conditions of a group, city, country, region or continent is often fragmentary. Our surveillance systems, with few exceptions, have been incomplete, inaccurate and heavily biased towards mortality because of the relative ease of acquiring figures on death compared to those on morbidity.

For mental disorders, this was clearly the case before the development of the third edition of the American Psychiatric Association (APA) *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) in 1980. With the availability of specific diagnostic criteria that could be incorporated into diagnostic instruments for use in community and clinical populations, it was possible to launch a new generation of psychiatric epidemiology studies that began with the Epidemiologic Catchment Area (ECA) study.[6] This study and its international replicates provided essential data for the GBD report prevalence and disability estimates and subsequent WHO and GBD surveys.

Commissioned officers in the USPHS at the National Institute of Mental Health (NIMH) initiated and led the ECA study, and collaborated with the WHO in developing the "Mental Disorders" chapter in the 10th edition of the *International Classification of Diseases* (ICD-10).[7] This chapter included the diagnosis of Post-Traumatic Stress Disorder (PTSD) for the first time in the ICD—a diagnosis now recognized worldwide in both civilian and military populations associated with trauma, disasters, and military conflict. Mental health experts for the Department of Defense (DOD) and USPHS Commissioned Corps have been closely involved with versions of the DSM including the most recent DSM-5. These efforts have moved us toward establishing common nosology on a global level.

Mental Health's Place in Global Health

Mental health issues pervade lives, communities, and nations, and there is a worldwide trend toward a globally accepted way of identifying disorders and understanding their epidemiology. We continue to make progress toward common understandings of mental health and mental disorders, providing potential opportunities for mental health as a core component of global health efforts.

It is gratifying to see mental health increasingly recognized as a critical part of global health. International collaboration is an absolute necessity if there is to be improvement in understanding, diagnosing, and treating mental disorders. The need and opportunities for collective and collaborative international action in research, training and human resources, policy development, and services are without question. At the same time, challenges regarding availability and distribution of provider resources, stigma, access and barriers to care, and system and governmental stability are daunting.

There are contributions, however, that mental and behavioral health professionals can make beyond direct diagnosis and treatment of illness. Global mental health concerns must also be addressed at the community level. In addition, there are mental health elements intertwined among numerous other worldwide challenges and many opportunities (even obligations) for mental health experts to contribute to multinational efforts and deliberations. Consider two such cases on the topics of violence prevention (example 1) and disaster risk reduction, response, and recovery (example 2).

Behavioral health experts both within and without the uniformed services can contribute to global health efforts in ways beyond individual diagnosis and treatment, for example, research, needs assessment, training and education, risk and crisis communication, systems design and support, program and systems evaluation, and stigma assessment and reduction. Additionally, consultation to leadership is often underappreciated both as a skill and a role. Leaders can benefit from consultation by mental health experts in areas such as risk and crisis communication as well as grief leadership. Example 3 illustrates how high-level government-to-government leadership consultation in global health capitalizes on larger government initiatives and involves nations with already well-developed mental health systems.

Roles for the Uniformed Services

The uniformed services have historically conducted a wide range of noncombat

Example 1. Global Violence

In 1996 the WHO declared violence a major and growing public health problem across the globe and in 2002 published its *World Report on Violence and Health*. Estimating approximately 475,000 deaths due to homicide, the WHO issued its *Global Status Report on Violence Prevention 2014*. In the face of an estimated 840,000 suicides worldwide, the WHO published in 2014 *Suicide Prevention: A Global Imperative*. Self- and other-directed violence are worldwide problems and all types of violence have mental health implications for prevention, cause, intervention, and recovery.

The WHO lists many mental and behavioral health consequences of violence, for example, alcohol and drug abuse, depression, anxiety, PTSD, eating and sleep disorders, attention deficits, hyperactivity, suicidal thoughts and behaviors, and unsafe sex. Indirect psychosocial consequences include loss of hope and empowerment, diminished self-efficacy, and erosion of trust and social connectedness. Types of violence are diverse yet all have significant mental health impacts. These include armed violence, gangs, child molestation, intimate partner violence, child abuse, sexual violence, and elder abuse. The demographics of violence affect regions, countries, and communities differentially. Due to gaps in our knowledge, intervention planning is not often based on empirical research; additionally, there are divergent cultural views on violence. Nevertheless, there is an increased appreciation that violence is a public health problem and growing evidence that violence can be prevented. Medical, public health, and mental and behavioral health experts are developing promising approaches and models to reduce violence.

Example 2. Disaster Risk Reduction

Disaster risk reduction, response, and recovery have increasingly become global health topics. This is partly a result of the increasing understanding of the dynamics of psychosocial impacts for disasters. These impacts reach from the individual, to the family, to the community, and to the nation and culture. The WHO's global leadership both in mental health and in psychosocial support in disasters reconciles well with its *Mental Health Action Plan 2013–2020*.

The truly worldwide nature of this issue is demonstrated by activities geared toward the development of the Hyogo Framework for Action 2 (HFA2). The United Nations supported the initial HFA in 2005. Surprisingly, it did not address certain health considerations such as key elements in disaster risk reduction (DRR). This has changed significantly in the worldwide process leading toward the development of HFA2, which is intended to build on global efforts in the decade since the initiation of the HFA and help guide DRR efforts for the next decade. In processes around the world, health has been a significant topic for consideration and mental health has been fully represented in those considerations. For example, as part of the HFA2 health planning effort, a special working group of international experts (including current and former U.S. uniformed services members) was convened to address psychosocial/mental health concerns and build community resilience within the context of DRR. Emerging themes included the importance of attending to physical as well as mental health factors across all phases of DRR: prevention, preparedness, response, and recovery.

Example 3. Collaboration with Russia under the Gore-Chernomyrdin Commission

An international example of Global Mental Health contributions of commissioned officers in the Department of Health and Human Services (DHHS) and the Department of Defense (DOD) occurred from 1994–2000 under the U.S.-Russian Joint Commission on Economic and Technological Cooperation (the Gore-Chernomyrdin Commission). A disaster-related mental health collaboration involved the exchange of information on disaster response programs and training rescuers. Russian representatives visited disaster sites in the United States, led by USPHS commissioned officers in the Substance Abuse and Mental Health Administration (SAMHSA), with additional consultations on disaster responses by the NIMH and the USUHS Department of Psychiatry (involving both Active-duty and retired military members). SAMHSA commissioned officers visited an airplane crash site in Irkutsk and the healthcare programs for victims of the accident at Chernobyl. The Russians visited the site of the Oklahoma City bombing and a tornado recovery program in Arkansas. Additional extensive programs were initiated under this health committee to advance the treatment of depressive disorders in primary care settings and to address alcoholism prevention and encourage the treatment of substance abuse in primary care settings.

The interest in health and mental health programs at the highest levels of government is directly related to their relevance for humanitarian, economic, and national security implications. The need for shared international collaboration, rapid mobilization of expert medical resources, and logistical support to address these issues has consistently required the services of commissioned officers in both the USPHS and DOD.

Former Montana National Guard Soldier who struggles with PTSD receives pointers from U.S. Navy Reserve officer and volunteer ski instructor during Eagle Mount Bozeman Lasting Experiences for Military therapeutic ski program at Big Sky, Montana, January 31, 2014 (DOD/Michael J. MacLeod)

Example 4. Mental Health Elements in East Africa U.S. Embassy Bombings

On August 7, 1998, the U.S. Embassies in Nairobi and Dar es Salaam were bombed. In Nairobi, a significant number of Kenyans were killed and injured and 12 Americans lost their lives. In the days that followed, the Kenyan Medical Association, through the U.S. Agency for International Development (USAID), requested a senior USPHS officer with extensive experience in disaster behavioral health to come to Nairobi to advise and assist in organizing programs for Kenyans who were experiencing psychological trauma. Several trips to Nairobi followed, resulting in the funding of a behavioral health intervention program funded by USAID.

When the Embassy was rendered unusable, Department of State activities and staff were temporarily moved to USAID offices, resulting in the crowding of two organizations with different levels of exposure to the trauma and different organizational cultures. The USPHS Commissioned Corps officer located in that building was also confronted with many of these psychosocial consequences. The mission quickly expanded to include consultation to State Department and USAID leadership. This consultation involved needs assessment, recommending appropriate interventions, and advising on organizational policies and practices (for example, staff reassignments, availability of treatment resources, and the extent of documentation of diagnostic and treatment information). The officer worked closely with Embassy medical leadership who were simultaneously victims and responders, State Department leadership in Washington, senior USAID officials in Kenya, as well as the Ambassador and her senior staff.

In the months following the bombings, there was a U.S.-led assessment of how the emergency medical systems of Kenya and Tanzania could be improved. In addition, a significant research agenda was undertaken to better understand the psychosocial impact of such events. The early and continuing involvement of behavioral health expertise later contributed to capacity-building efforts not only in Kenya and Tanzania but in U.S. Government entities as well. The intervention required content expertise in disaster behavioral health and rapid response to changing and emerging needs, acquisition of ethnic/racial and organizational cultural factors, political factors, and complex organizational factors.

operations. The increasing globalization of the U.S. economy, expansion of international partnerships, advancements in technological communication, and an increase in the frequency of natural disasters have resulted in a greater emphasis on global health operations. Increasingly, the focus is on efforts to optimize the delivery of global health support by the U.S. uniformed mental health providers who play a key role in the preparation, execution, and recovery from global health operations. Example 4 illustrates uniformed services contributions in disaster relief and health care after the bombing of U.S. Embassies in East Africa.

Training and Preparation

Prior to conducting global health operations, uniformed personnel receive an array of trainings including education and simulated experiences. Preparation increases their ability to effectively

Chaplain assistant, 175th Wing, Maryland Air National Guard, rappels down mountainside during Adaptive Sports Camp in Crested Butte, Colorado, designed to provide encouragement to military veterans with post-traumatic stress disorder, amputations, and other injuries (U.S. Air Force/Vernon Young, Jr.)

conduct operations using enhanced situational awareness unique to the environment and anticipated exposures. Personnel are trained in cultural awareness to aid in the provision of effective health care that respects the unique needs of the indigenous population. Joint training operations with host-nation personnel facilitate information exchange and collaboration throughout the mission. An important aspect of preparation is learning how to work with socioeconomically disadvantaged populations including the impact of health disparities on how foreign intervention may be received. Military personnel receive guidance on anticipating psychological stressors unique to diverse overseas operational environments such as exposure to human suffering, handling bodily remains in the aftermath of a disaster, and managing concerns about potential chemical, biological, radiological, and nuclear exposures. Ongoing

Example 5. Consultation to Eurasian Allies in Disaster Preparedness and Response

In 1993, the George C. Marshall European Center for Security Studies was established to create a more stable security environment by advancing democratic institutions and relationships, promoting active, peaceful security cooperation, and enhancing enduring partnerships among the nations of North America, Europe, and Eurasia. In addition to graduate-level resident programs and conferences, the Marshall Center identifies Defense Department and civilian experts in technical and professional fields to meet specific assistance or training requests of partner nations and coordinates visits with content experts. As preparedness for and response to disasters often fall to the national defense forces of U.S. allies, assistance in developing public health response to psychological aspects of disaster (including war and terrorism) has been both sought out and encouraged by Marshall Center leadership. Comprehensive disaster response planning and implementation enhances health security in our allies and is thus in our mutual best interest.

In response to such a request for assistance, a military psychiatrist from the USUHS traveled to the Kazakhstan National Defense University in 2013 to train members of the National Military Medical Institute in curriculum development for assessment and management of post-traumatic stress. Over 2 days of presentations, interactive seminars, and discussions (assisted by translators hired and vetted through the Marshall Center), military medical educators from the Kazakhstan Defense Forces were introduced to specific elements of disaster-response curriculum developed at USUHS including principles of psychological first aid, psychological triage during disaster, and the assessment and management of PTSD. The focus of the consultation was integrating disaster psychiatry concepts into existing medical education programs supporting traditional didactics with cooperative learning group exercises and simulation. Discussions involved translation of Kazakhstani culture-specific elements into U.S. case material, and expansion of military response concepts to potential civilian disasters. The dialogue initiated during the visit was extended via further correspondence, resulting in requests for future collaboration.

Table. Roles of Uniformed Mental Health Providers in Global Health Operations

Preparation	Execution	Recovery
Identify and prepare for operational exposures, psychological stressors	Monitor individuals and systems and provide interventions such as Psychological First Aid	Provide reintegration education, screening, and referral
Training/educated regarding cultural awareness	Monitor methods intended to assure cultural appropriateness. Make rapid adjustments	Evaluate cultural appropriateness of approaches/interventions
Assess pre-event/early event healthcare status, capacity, disparities	Advise on reestablishing healthcare capacity	Normalizing reactions, monitor healthcare system recovery
Train in consultation to leadership. Develop relationships and educate leaders	Provide consultation to and provide support for leaders	Assist in after action review and analysis. Assist in sustaining positive changes
Assist in preparedness and plan development	Assist/monitor plan implementation	Evaluate/assist in plan modification
Train providers/responders	Monitor performance	Redesign based on experience
Conduct and disseminate research	Apply research	Repeat/conduct further research

Example 6. Responding to an Ebola Outbreak

The outbreak of Ebola in West Africa provides a dramatic example of both how complex and far reaching disease outbreaks can be and how comprehensive an effective response must be. In this case, understanding and addressing both public health and medical needs are essential. The psychosocial consequences are massive. The response has been an integrated uniformed services response that fully incorporated mental health issues. The recent U.S. response to the Ebola epidemic is a prime example of the need for such expertise and logistical support. Regardless of the nature of the medical or disaster emergency, the need to address the mental health consequences in affected populations requires the same level of attention and expertise.

The Department of Defense (DOD) has deployed significant resources to establish medical treatment resources and improvement of disease diagnostics. The USPHS has deployed officers (including mental health personnel) to staff a DOD hospital in Liberia to care for healthcare workers exposed to Ebola.

As part of the Uniformed Services University response, the Department of Psychiatry and the Center for the Study of Traumatic Stress (CSTS) have provided (through an integrated effort involving USPHS and military officers) consultation on Ebola risk communication to leadership at the CDC to assist in their domestic and international messaging efforts. CSTS has also developed educational fact sheets on Ebola for patients and healthcare providers. These have been disseminated to a wide range of stakeholders including Federal agencies, national and state mental health leaders and policymakers, healthcare advocacy groups, and U.S. medical schools.

challenges include training enough of the right people—early in their careers—who possess skill sets matched both to the mission and to the culture.

Mental health support to the execution of a global health operation involves the provision of direct patient care including screening for and treatment of a range of behavioral health symptoms and disorders. Uniformed healthcare personnel understand fundamental evidence-based mental health interventions for use in the initial response to traumatic events such as psychological first aid, which emphasizes safety, calming, connectedness, self and community empowerment, and hope. A unique role for military mental health services is providing support to high-risk personnel often overlooked during high-tempo operations, for example, first responders and leaders. Uniformed mental health personnel can collaborate with local healthcare leaders on policy and planning to support the development or reestablishment of disrupted healthcare capacity. Example 5 presents a military-to-military global health initiative facilitated by an international organization.

Uniformed services mental health resources can play roles for U.S. uniformed personnel as well as global partners. The recovery phase of global health operations is enhanced by mental health interventions that reintegrate caregivers into daily life. This includes education about expected reactions to stressful events, common mental health symptoms, education about and linking with available resources, mental health screening of personnel, and treatment referrals when indicated. Success of global health operations can be enhanced during the recovery phase when mental health advisors work with local leaders to provide consultation on mechanisms to sustain beneficial healthcare changes. Mental health personnel can assist the host nation to articulate long-term public health goals, clarify gaps in mental healthcare needs, and identify potential barriers to implementation. The accompanying table demonstrates how uniformed mental health workers can assist throughout different phases of various operations.

Contributions

Uniformed mental health providers offer a unique set of capabilities to organizations involved in global health operations. Every uniformed provider develops skill in direct support of operating forces. Success stems from shared experiences, knowledge of organizational culture, and recognition that interventions affect individuals as well as groups (see example 6).

Direct patient care in the uniformed services is fundamentally identical to that provided by any qualified mental health provider, but the interaction is different in several ways. Uniformed providers succeed by applying an understanding of organization and operational context in which Servicemembers function. This understanding allows treatment to be tailored to the needs of the individual and organization without creating or exacerbating conflicts. Periodic reassignment and augmentation require mental health providers to rapidly assimilate into new organizations on a regular basis. This ability translates readily into supporting Servicemembers as they enter global

Airman assigned to 379th Expeditionary Aeromedical Evacuation Squadron logs patient's information into Electronic Health Record system in Southwest Asia to support Operation *Inherent Resolve*, January 6, 2016 (U.S. Air Force/Nathan Lipscomb)

health engagement, where leaders and caregivers must rapidly and effectively understand and assimilate new cultures to provide effective care often while operating in difficult environments.

Military mental health providers develop and apply knowledge of human response to acute and chronic stress as part of their routine clinical work. Whether stress of adaptation to the military, garrison training demands, or combat exposure, military mental health professionals routinely care for individuals exposed to significant psychological stress. Mental health providers routinely advise line leaders on best practices for preventing and mitigating combat and operational stress. They also provide incident response capability within military units following traumatic events. In working with developing nations, an understanding of human stress response is fundamental as rates of psychological trauma can be significant while treatment and follow-up resources are often few or even nonexistent.

Mental health in the military Services is inherently task-oriented. Every clinical encounter concludes with a fitness for duty determination, a constant reminder to providers of the role they play in maintaining readiness. Providers are capable of deploying a range of scalable and diverse capacities to meet the needs of operations. Military mental health providers routinely support humanitarian assistance missions with the primary mission of care for military personnel. This role can easily expand to include direct care or advising local health officials or other uniformed medical personnel on population psychological health. Mental health systems in low- and middle-income countries are minimally funded and staffed, with an average of 0.05 psychiatrists per 100,000 people in low-income countries.[8] In some countries, there may be only one psychiatrist in the entire nation. In such instances, the role of the uniformed provider is to support and develop the capacity for mental health intervention in primary care.

Challenges and Opportunities

The integration of mental health issues into global health engagement presents a number of exciting opportunities as well as challenges. Opportunities include:

- Identifying and appropriately treating mental disorders is a worldwide challenge (for example, see *The Global Burden of Disease* report and the WHO's *Mental Health Action Plan 2013–2020*). Preparing for and

Example 7. Providing Timely, Practical, and Customizable Mental Health Guidance

CSTS conducts research and consults with communities and Federal and international agencies on matters surrounding individual and community responses to trauma, disaster, and war. The center also provides educational resources in the form of customized, highly readable just-in-time fact sheets that offer individuals and organizations relevant information to support the behavioral health response to disasters. In 2013, Typhoon Haiyan devastated Southeast Asia, causing over $2 billion in damages, killing approximately 6,300 people, and injuring nearly 29,000 others. Prior to the deployment of DOD mental health forces in response to this disaster, CSTS provided educational fact sheets to U.S. senior military mental health leadership with information about supporting first responders, providing for the needs of children and families, aiding leaders in managing the grief of those affected, and other relevant resources. Military mental health leaders indicated these fact sheets served as an ideal resource as they prepared for and responded to the needs of all stakeholders affected by Typhoon Haiyan as well as those involved in response efforts.

An early CSTS consultation led by Dr. Harry Holloway in collaboration with the National Aeronautics and Space Administration (NASA) involved survivors of the 1988 Spitak earthquake in Armenia. Estimated casualties were over 50,000 and approximately 500,000 people were left homeless. CSTS joined with several other academic centers providing direct consultation in multiple medical areas, including mental health, as part of NASA's telemedicine program. Known as the "Space Bridge to Armenia," this innovative program advanced our understanding of the effect of trauma on mental health, while facing medical and technical challenges of the time such as identifying personnel in both countries with appropriate technical and medical skills, establishing multi-site video connections, and finding the best forms of media to securely transmit complex patient information. Efforts such as this provide opportunities to explore the cross-cultural dimensions of understanding mental health and application of intervention techniques. At the same time, it allows U.S. resources to provide support and build capacity in other areas of the world.

responding to global events provide a unique opportunity to share knowledge among nations, enhance the mental health capacity of underdeveloped nations, and help combat worldwide stigma concerning mental illness. (Example 7 illustrates how pre-event and just-in-time guidance and educational materials are available for preparedness and response.)

- Providing opportunities to expand the range of uniformed services roles and interventions beyond combat will benefit the uniformed services in contexts that extend beyond global health. Increased awareness of the impact of global health capabilities of the uniformed services can enhance U.S. foreign policy and diplomatic objectives.

Ongoing challenges include:

- Stigma regarding mental health both domestically and around the world remains strong.
- There is a lack of trained personnel and healthcare and public health systems in many areas of the world.
- There is a need to expand understanding of the full scope of what uniformed Services and other mental health experts can achieve.
- Training needs are broad and reach beyond direct patient care, especially regarding cultural competence, crisis communication, and consultation.
- There is a need for expanded support for the value of multi-professional and multi-organizational integration and collaboration.
- There is a need for expanded methods of collecting, organizing, retrieving, and adapting what is known. JFQ

Notes

[1] World Health Organization (WHO), *Mental Health Action Plan 2013–2020* (Geneva: WHO, 2013), available at <http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf>.

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[3] Kathleen R. Merikangas et al., "The Impact of Comorbidity of Mental and Physical Conditions on Role Disability in the U.S. Adult Household Population," *Archives of General Psychiatry* 64, no. 10 (October 2007), 1180–1188.

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