## 2012 Report of

The Department of Veterans Affairs

Gulf War Veterans' Illnesses Task Force

to

The Secretary of Veterans Affairs

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#### **Executive Summary**

The Gulf War Veterans Illnesses Task Force (GWVI-TF) was formed to ensure that the Department of Veterans Affairs (VA) maintained a focus on the unique issues of Veterans of the 1990-1991 Gulf War. The Persian Gulf War is legally defined in title 38 U.S.C. § 101(33) as beginning on August 2, 1990, and ending on the date thereafter prescribed by Presidential proclamation or by law. While the term "Gulf War Veterans" could refer to all Veterans of conflicts during this period, including Veterans of Operation Iraqi Freedom, and subsequent conflicts, the GWVI-TF target population is Veterans who were deployed on the Operation Desert Shield and/or Operation Desert Storm components of the 1990-1991 Gulf War, hereafter referred to as the Gulf War.

In August 2009, the Secretary of VA directed a comprehensive review of the Department's programs to support this population of Veterans, develop an overarching action plan to advance their services, and ultimately improve their satisfaction with the quality of services and support VA provides. This report is the third annual report and is intended to document VA's roadmap and concrete actions to improve care and services to Gulf War Veterans. The work continues to be based on a premise that the efforts are part of the core VA mission "to care for him who shall have borne the battle." Beginning with the 2011 report, the GWVI-TF adopted a standing framework for organizing and synchronizing its efforts. That framework serves as the overarching template for this report. The framework is composed of the following lines of effort:

Clinical Care: Leveraging Veteran-Centric Specialty Services in Primary Care; Clinical Education and Training: Putting Clinical Knowledge into Practice; Veteran Benefits: Delivering Compensation and Pension and Fiduciary Services; Veteran Outreach: Improving Communications to Gulf War Veterans; Partnerships: Improved Data Sharing with DoD; Ongoing Scientific Review and Surveillance: Taking Advantage of Untapped Sources of Data Related to Veterans' Health; and Research and Development: Encouraging Targeted Efforts.

#### Clinical Care: Leveraging Veteran-Centric Specialty Services in Primary Care

Clinical health care for Gulf War Veterans is one of the most critical services VA can provide. This line of action is directly supported by clinical education and training to ensure VA providers are well prepared to care for this population. Clinical care also benefits from research and development and ongoing scientific review and surveillance which inform and direct the best in evidence-based health care. Over the past year, a model for implementing Gulf War specific care within the VA's evolving Patient Aligned Care Team (PACT) concept has taken root at the Salt Lake City VA Medical Center (VAMC). The model has integrated Gulf War specific health care provider education with the PACT concept. Initial results indicate that both patients and providers are more satisfied with the model, particularly the impact of the education effort on provider knowledge and the resulting ability to more effectively communicate with patients around their Gulf War specific health needs.

#### Clinical Education and Training: Putting Clinical Knowledge into Practice

As discussed above, effective education of providers has the potential to significantly improve the care VA delivers to Gulf War Veterans. Over the past year the GWVI-TF clinical education and training effort focuses on improving VA's ability to put critical clinical knowledge and expertise at the point of care. Where the clinical care work was aimed at synchronizing specialty and primary health care, this effort was in direct support, providing necessary clinical education, training, and subject matter expertise. The Veterans Health Administration's (VHA) Office of Public Health (OPH) created an "Environmental Exposures Pocket Card" for health care providers to bring attention to Veterans' health concerns related to environmental exposures. It prompts the care provider to "ask" the Veteran about their concerns, "become informed" so they can discuss the issue with the Veteran and create a "care plan" to ensure the appropriate level of attention is paid to the issue. Additionally, OPH participated in the creation of a SharePoint site that provides post-deployment care training resources for PACTs.

#### Veteran Benefits: Delivering Compensation and Pension and Fiduciary Services

As research and environmental study evolves or new legislative and regulatory provisions are written regarding illnesses for Gulf War Veterans, the VA Compensation Service of the Veterans Benefits Administration (VBA) performs necessary rule-making and develops field training to support the changes.

#### Veteran Outreach: Improving Communications to Gulf War Veterans

VA is dedicated to improving the lives of Veterans of all eras and their eligible family members and survivors by providing them with the benefits and services they have earned. Research shows there is a lack of awareness when it comes to specific services, and Gulf War Veterans continue to require and rightfully expect timely and accurate information about VA's efforts to support them. Individuals can sign up for Web updates through the subscription box on the GWVI Web site: http://www.publichealth.va.gov/exposures/gulfwar/index.asp. VA uses other means, including social media, to get information out. VHA's OPH collaborated with the Centers for Disease Control and Prevention (CDC) to obtain Internal Revenue Services' (IRS) mailing addresses for the entire list of Operation Desert Storm and Shield deployed individuals previously provided by DoD to VA. VA's past outreach mailings were limited to those who self-refer to the Gulf War Registry and provide addresses. Through this collaboration, VHA will now be able to expand its outreach to all those who deployed. Also, OPH has assembled the Post-Deployment Health Veterans Community Board, which includes Gulf War Veteran representation, to provide Veteran feedback on the effectiveness of outreach and educational efforts on deployment related health topics made by OPH. This Community Board will review both printed materials and the Web site.

#### Partnerships: Improved Data Sharing with DoD

DoD and VA provide health care and benefits to the same population at different times in their lives. Environmental exposures occur during active duty whereas the potential clinical consequences can manifest later when the former Servicemember is a Veteran. For this reason it is critical that VA and DoD share clinical and exposure data.

## Ongoing Scientific Review and Population-Based Surveillance: Taking Advantage of Untapped Sources of Data Related to Veterans' Health

Ongoing scientific review is critical to understanding the environment that impacts health. There are Veterans' health related data available from sources other than studies conducted by VA. Having access to and understanding these data sources is important in comprehending the complex array of adverse health effects associated with deployment.

#### Research and Development: Encouraging Targeted Efforts

Through the Office of Research and Development (ORD), VA funds research that will further the goal of improving the health and lives of Veterans who have GWVI, including the complex of chronic symptoms that affect Veterans of the 1990-1991 Gulf War.

The focus of the GWVI-TF is to integrate new knowledge into services that will directly benefit Veterans of the 1990-1991 Gulf War. Taken together, the activities in the seven lines of effort described above demonstrate the work done by VA to support these Veterans and provide a road map to institutionalizing these efforts moving forward.

#### Introduction

Over 20 years have passed since the start of the deployment and combat operations known as Operations Desert Shield and Desert Storm. Since then, many Veterans of that conflict have endured adverse health consequences from the war. The Persian Gulf War is legally defined in 38 U.S.C. § 101(33) as beginning on August 2, 1990, and ending on the date thereafter prescribed by Presidential proclamation or by law. While the term "Gulf War Veterans" could refer to all Veterans of conflicts during this still open time period, including Veterans of Operation Iraqi Freedom, and subsequent conflicts, the GWVI-TF target population is Veterans who were deployed on the Operation Desert Shield and/or Operation Desert Storm components of the 1990-1991 Gulf War, hereafter referred to as the Gulf War.

Many Veterans continue to express concerns that the VA is failing to meet their needs. Stakeholders have been critical of VA's culture and processes as well. Unexplained medical symptoms and illnesses reported by deployed 1990-1991 Gulf War Veterans continue to elude connection to any specific medical condition or conditions. VA's stakeholders have also criticized the Department's emphasis in its research and clinician training materials and in public statements regarding the causes and treatment of Gulf War illnesses. The GWVI-TF was set up to respond to these criticisms.

The mission of the GWVI-TF is three-fold:

• To identify gaps in services as well as opportunities to better serve 1990-1991 Gulf War Veterans, inclusive of women Veterans who served;

• To develop results-oriented recommendations that decisively advance VA's efforts to address their needs; and

• To apply lessons learned from past practices and policies that can improve today's programs and services supporting Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn Veterans.

## **Overarching Concept**

The GWVI-TF published its first annual report in September 2010. This report was organized around seven overarching themes which were identified though Veteran and other stakeholder feedback. Moving forward from that foundation, the GWVI-TF refined the focus of efforts to support the Gulf War Veteran population, ultimately establishing seven overarching themes:

- Clinical Care: Leveraging Veteran-Centric Specialty Services in Primary Care;
- Clinical Education and Training: Putting Clinical Knowledge Into Practice;

- Veteran Benefits: Delivering Compensation and Pension and Fiduciary Services;
- Veteran Outreach: Improving Communications to Gulf War Veterans;
- Partnerships: Improved Data Sharing with DoD;
- Ongoing Scientific Review and Population-Based Surveillance: Taking Advantage of Untapped Sources of Data Related to Veterans' Health; and
- Research and Development: Encouraging Targeted Efforts.

This year, emphasis was placed on implementing concrete actions and marking measurable performance objectives within the scope of GWVI-TF. The results-oriented recommendations made in last year's report were developed to decisively advance VA's ability to address the needs of the Gulf War Veteran through proactive and meaningful action. Most importantly, task force members were asked to ensure that efforts to serve these Veterans were integrated into institutional practice and lasting VA culture by establishing measurable objectives, a clearly identified intent for each recommended activity, and a leadership reporting process to maintain accountability for completion.

In addition to its focus on the cohort of Veterans from the 1991 Gulf War, this task force has also provided a mechanism to assess broader practices towards all Veterans. During last year's VHA reorganization, VHA Office of Disability and Medical Assessment was formed. The office, in a collaborative partnership between VHA and VBA, has been a leader in driving for a meaningful separation health assessment for all Servicemembers leaving the military, intended to reduce or eliminate much of the challenges Gulf War and Veterans of other eras face when trying to establish evidence to support service connection of medical disability.

This report reflects the work completed since the last report was issued in March 2012. It also describes how VA intends to continue to pursue improvements in the care and services for Veterans from the 1990-1991 Gulf War era. VA has and will continue to make strides to ensure services for this cohort of Veterans are integrated into the ongoing strategic and operational efforts of the Department, and also uniquely managed to support the specific needs of these Veterans.

# Clinical Care: Leveraging Veteran-Centric Specialty Services in Primary Care

#### Background:

Facilities across VHA are currently working on bold, innovative programs to combine primary care and specialty care services. Proactive efforts are being taken to address the current health issues facing Gulf War Veterans. VHA is collaborating on an innovative program that will combine Gulf War specific specialty medical treatment models with primary care to produce a seamless, patient-centric model that will improve patient and provider education, safety, and satisfaction.

The institution of VHA's Patient Aligned Care Team (PACT), designed to increase access, coordination, communication, and continuity of care for patients is being linked to a patient-centric program to integrate primary care and specialty care. The goal is to provide our Veterans with cutting edge care that will redefine the way VHA delivers seamless service to our patients.

In the previous report, we discussed multiple areas of clinical expertise that needed to be shared with the primary care field. Gulf War Veterans may have been exposed to toxicants that are not often encountered by providers in primary care practice. Also, forms of illness such as irritable bowel syndrome and fibromyalgia are at times not fully understood by the primary care community. Given the varying symptoms of Gulf War Veterans and problems of unclear etiology, efforts must be improved to help providers recognize mental health problems as separate and distinct from physical health problems. Such efforts will enhance providers' ability to take a balanced approach in addressing both the medically unexplained symptoms and mental health symptoms. The Post-Deployment Integrated Care Initiative (PDICI) continues to develop advanced clinical programs that maximize access and optimize care for Veterans with deployment related health concerns. VA is also launching a program to better integrate mental health care in the primary care setting which will also enhance all providers' abilities to properly address the full spectrum of health care concerns of Gulf War Veterans.

#### Current Efforts:

VHA is implementing the PACT program across VHA. Additionally there is a well-developed network of specialty care providers in many VA health care facilities supported by the highest levels of specialty medical care at larger teaching medical centers. VA War Related Injury and Illness Study Centers (WRIISC), located in Washington, DC; East Orange, New Jersey; and Palo Alto, California; are currently supporting primary care and implementing cutting edge research and treatment programs tailored to Gulf War I Veterans. The WRIISC's provide teams of multidisciplinary clinicians uniquely qualified to evaluate Veterans with deployment related health concerns and provide a clinical "second opinion" resource to Veterans via a referral process based on geographic location. If a Veteran is eligible to be treated at

one of the WRIISC center facilities, the primary care physician may contact that WRIISC program directly about a referral. This information is reaching the field and streamlining methods of consultation for primary care to the WRIISCs.

In addition, the clinical operations group is regularly meeting with the public health group, the research group, and the benefits group to "brainstorm" innovative solutions to patient issues. Current patient scenarios are being reviewed to discover opportunities for improvement.

#### <u>Plan</u>:

The pilot program to implement Gulf War specific care within the PACT concept at the Salt Lake City VAMC has provided some useful information. The pilot is a networkbased system of care linking primary care PACT teams with a specialty care capability that focuses on treating the unique health care requirements of the GWVI population. This program further leverages information technology including the VA electronic health records and the existing VA telehealth infrastructure.

#### Metrics and Accountability:

The pilot program has thus far educated over 60 front-line clinicians in Salt Lake City, Utah, regarding Gulf War specific conditions. Currently, informational meetings and conferences coupled with pocket cards and Web sites developed by OPH have provided valuable educational resources to front-line primary care clinicians. These efforts have been led by senior faculty trained in issues specific to primary carespecialty care integration. These subject matter experts have leveraged and expanded the ability to disseminate this information by using telehealth resources available at the Salt Lake City VAMC.

This educational system has resulted in a significantly improved knowledge of GWVI issues among our provider trainees. Family medicine doctors in training, nurse practitioner students, physicians' assistant students and internal medicine doctors in training have all noted significant improvement in comfort with knowledge-base and ease in providing referrals to Gulf War Veterans. These results are part of an ongoing study which uses focus groups and patient surveys.

Also using focus groups and surveys, outlying clinics have also noted an increase in knowledge and ease of access of information regarding Gulf War clinical issues.

Gulf War Veterans are also noting an improvement in the knowledge base of the providers. Veterans have noted that trainee medical doctors (M.D.) "don't come in cold about Gulf War anymore", and "seem to have a clue." Veterans have been pleased that VHA has set up Web sites and identified subject matter experts to help our primary care MD's improve the quality of care that is delivered to them.

Salt Lake City VAMC has noted improvement in customer service scores in overall clinic satisfaction and in focus groups and is currently working on a Facebook page to help

Gulf War Veterans better communicate with primary care leadership and offer feedback regarding the outreach projects. We also want to keep Gulf War illness Veterans informed of the progress of the current pilot project.

The investigators conducting the study had providers and patients complete the surveys using a 5-point scale. The results of the patient and provider satisfaction will be presented at VHA's National Primary Care Meeting and prepared for publication.

# Clinical Education and Training: Putting Clinical Knowledge into Practice

#### Background:

The unique exposures experienced by Gulf War Veterans during their military service require that specialized knowledge concerning military service and environmental hazards is widely available throughout VA and specifically within the clinical environment. Specific expertise concerning the health effects of environmental hazards is usually limited to clinicians trained in occupational medicine and emergency medicine. The challenge for VA is to ensure that specialized knowledge about deployment related environmental hazards is available to all clinicians who provide health care to Veterans. Deployment related clinical education and training are essential enablers of optimal clinical care for Gulf War Veterans.

#### Current Efforts:

The following actions have been taken to address this issue:

- A WRIISC Webinar on medically unexplained symptoms broadcast in March 2012 provided in-depth training to health care teams and is now available on the VA training Web site. This Webinar presents material regarding environmental exposure screening as well as numerous topics related to Gulf War Veterans, including the current cohort of Veterans from Iraq and Afghanistan.
- A listing of the environmental health (EH) coordinators has been developed, is frequently updated and is posted at: http://www.publichealth.va.gov/exposures/coordinators.asp. EH coordinators provide a local point of contact for Veterans and staff to learn more about VA programs related to environmental hazards experienced during military service.
- OPH created and distributed the VA Environmental Exposure Pocket Card as a resource for VA providers who see Veterans with exposure concerns (see Appendix A). It includes questions to ask the Veteran regarding his/her concern, who to contact within the VA for more information, and links to useful resources on the Web (e.g., details on exposures, benefits information). To date, over 23,000 cards have been distributed to providers and other VA staff in the field.
- Using OPH's new Environmental Exposure Pocket Card, VA's Office of Academic Affiliations incorporated environmental exposure information into its 2012 Military Health History Pocket Card for Clinicians, which reaches the hands of thousands of medical students and medical residents rotating through VA medical facilities each year.
- Using Veteran feedback, OPH has updated its exposures Web site in ways that have made navigation more user-friendly (i.e., "Four Ways to Find" exposure information).

- An environmental exposures mobile and Web application is being developed as a resource for providers. Its purpose is to provide just-in-time information on exposures, including historical context, associated symptoms/conditions, and potential treatments. Fact sheets for Veterans will also be integrated into the "app" for frequently occurring issues. The requirements phase was completed in May 2012.
- OPH participated in the building of a primary care SharePoint site on postdeployment health resources for PACTs focusing on a stepped care approach where each PACT will have access to a post-deployment health clinical champion with advanced knowledge. The site will become active in early 2013.
- OPH collaborated with the Employee Education System and U.S. Army Public Health Command bringing subject matter experts from around the country to Crystal City, Virginia, for the Joint VA/DoD Airborne Hazards Symposium on August 21-23, 2012. The Joint VA/DoD Airborne Hazards Symposium was conducted because of concern from Veterans and Veterans' groups, VA and DoD officials, and other stakeholders over possible health effects of airborne hazards among Veterans who deployed as part of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). The purpose of the symposium was to discuss health effects related to inhaled (airborne) hazards among Servicemembers returning from deployment to Iraq and Afghanistan. These airborne hazards include air pollution from natural blowing dusts as well as manmade pollution from sources such as burn pits. A number of OEF/OIF Veterans have experienced a range of mild to severe decrements in their exercise tolerance. Many of these hazards, such as particulate matter (PM) and oil well fire smoke, are also concerns for Gulf War Veterans.
- VHA's Health Care Information and Analysis Group (HAIG) assisted OPH in the development, implementation and analysis of a first ever program survey of the Environmental Health registry program. The 2011-2012 HAIG Survey of the Environmental Registry Examination Programs identified numerous strengths and weaknesses. Over 30 percent of Veterans Integrated Service Networks (VISN) reported that registry exams were available in their Community-Based Outpatient Clinic (CBOC), providing enhanced services to Veterans. However, some programs are not able to meet their current registry examination responsibilities at the medical center due to staffing shortages and are not in a position to expand their scope to support increased consultations to primary care. Specific recommendations from this report include improving data capture of exams to enable assessment of required staff levels, clinic hours, optimum alignment of the registry within the facility administrative structure, and improved communications between the field and VHA Central Office.
- OPH sponsored quarterly conference calls for EH coordinators and clinicians. These calls provide on-going training by addressing administrative and patient care questions from the field and providing policy and subject matter expertise from VA's Central Office back to field facilities.

#### Plan:

The initiative to redesign primary care within VHA via PACT mandates improved health care provider education regarding the health effects of environmental hazards. VHA is designing a three-tiered approach to the delivery of environmental hazards information and expertise. OPH will coordinate improved education of environmental clinicians and coordinators so they may provide consultations to primary care clinicians and their patients.

VHA's HAIG survey of the Special Environmental Registry Examination Program identified numerous shortfalls for which a series of recommendations were developed. OPH will develop plans to implement these recommendations with the assistance of field advisory teams throughout 2012 and 2013.

- OPH is also planning to launch a provider-focused Web page to include information on conducting an exposure assessment, exposure related symptoms, diagnoses, and treatments, and other information to guide providers through the process of addressing military exposure related concerns. This launch is scheduled to occur by November 30, 2013.
- Currently available exposure fact sheets are being updated to provide both providers and patients with the most accurate information possible regarding the potential for health risks associated with potential environmental exposures. The updating of existing fact sheets should be completed no later than April 30, 2013. New fact sheets on other exposures will also be drafted throughout the year. The fact sheets and Web content are reviewed quarterly or earlier should a significant scientific development occur.
- Development of the mobile environmental exposures application is awaiting prioritization among other mobile application requests by VA's Office of Information and Technology. If approved for development, the application should be made available to the field by late 2013.
- To strengthen the current practices of VA environmental clinics, a plan is being developed for a two and a half day train-the-trainer workshop for EH coordinators and clinicians.
- A second version of the Environmental Exposures Pocket Card has been developed to target providers outside of VA who may care for Veterans and is currently posted on OPH's "Military Exposures" Web site. This version is projected to be submitted for inclusion in the online clinical training database of the "Joining Forces" initiative - an effort led by First Lady Michelle Obama and Jill Biden, Ph.D., by June 30, 2013.
- Planning and implementation of follow-on actions are scheduled to occur in fiscal year (FY) 2013 to address issues identified in the 2011-2012 HAIG Survey of the Environmental Registry Examination Programs and develop workable solutions.

In the interim, VHA's Gulf War Registry Examination Handbook, which provides guidance for facility directors and EH coordinators and clinicians, is being revised to clarify their role in regard to primary care providers. The revised handbook publication is anticipated in the winter of 2013.

#### Metrics and Accountability:

- Development of an Environmental Exposures Pocket Card for non-VHA providers was completed in October 2012.
- VHA's Gulf War Registry Examination Handbook, which provides guidance for facility directors and EH coordinators and clinicians, is being revised to clarify the EHCs role in regard to primary care providers. Publication is anticipated in summer 2013.
- Specialized training of EH clinicians and coordinators through seminars, Webinars, and other media is ongoing. A plan is being developed for an interactive train-the-trainer workshop to be held in August 2013 that would detail critical topics such as performing registry exams and establishing Veteran eligibility in order to aid in the standardization of care at EH clinics throughout VA's health care system.

# Veteran Benefits: Delivering Compensation and Pension and Fiduciary Services

#### Background:

VBA's Compensation Service provides a service-connected disability benefit to Veterans with honorable service during the Gulf War for disabilities incurred in or aggravated by such service. VBA's Pension and Fiduciary (P&F) Service provides a needs-based pension benefit to Veterans who served in the Gulf War who are age 65 or older, or totally disabled from a disability not related to the Veteran's service. P&F Services also provides a service-connected death and needs-based pension benefit to surviving dependents of Veterans.

In FY 2010, the GWVI-TF reviewed the legislative and regulatory provisions unique to the Gulf War cohort of Veterans. Rule-making was undertaken to add additional diseases to the list of those subject to the presumption of service connection based on evidence provided by the National Academy of Sciences on chronic diseases associated with service in Southwest Asia.

To further assist Gulf War Veterans, VBA Compensation Service developed two training letters designed to inform and instruct regional office personnel on development and adjudication of disability claims based on Southwest Asia service. Training Letter 10-01, titled Adjudicating Claims Based on Service in the Gulf War and Southwest Asia, was released on February 4, 2010. This training letter provides background information on the Gulf War of 1990-1991, and explains the initial 1994 and subsequent 2001 legislation found in title 38, United States Code (U.S.C.), § 1117, which was a response to the ill-defined disability patterns experienced by returning Gulf War Veterans. It explains the terms "undiagnosed illness" and "medically unexplained chronic multisymptom illness" used in the legislation, and stresses that service connection may be granted for other diagnosed chronic, multisymptom illness in addition to chronic fatigue syndrome, fibromyalgia, and irritable bowel syndrome, which are identified as examples in the legislation. It also provides step-by-step procedures for procuring supporting evidence and for rating a disability claim based on Southwest Asia service under § 3.317 of title 38 Code of Federal Regulations (C.F.R.). The training letter includes a separate memorandum to be sent with the VA medical examination request so that examiners are informed of the issues related to gualifying chronic disabilities and will be better able to evaluate a Gulf War Veteran's disability pattern.

The Gulf War Training Letter was due in part to what VA has learned from this cohort of Veterans. Essentially, that disability patterns are complex and the law governing Gulf War disability rating policy is equally complex. Training Letter 10-01 provided valuable refresher training to field personnel while implementing uniformity across VA with respect to Gulf War examinations and Gulf War claims adjudication policy.

Additional assistance was provided in Training Letter 10-03, *Environmental Hazards in Iraq, Afghanistan, and Other Military Installations*, which was coordinated with DoD.

This training letter provides regional office personnel with information on environmental hazards associated with Gulf War and Southwest Asia service. It discusses airborne toxic substances resulting from the widespread use of burn pit fires to incinerate a variety of waste materials in Iraq and Afghanistan, as well as hexavalent chromium contamination at the Qarmat Ali water treatment plant in Basrah, Iraq, from April through September 2003. The training letter was sent to VBA's regional offices on April 26, 2010.

The purpose of this information is to alert regional office personnel to the potential for disability claims based on exposure to any of these environmental hazards. The training letter outlines development and rating procedures for such claims and provides fact sheets for VA medical examiners that explain each hazard. VA coordinated with DoD to assure that these fact sheets accurately described the environmental hazards.

VBA continues to improve in the nationwide accuracy for Gulf War claims processing. Through our Systematic Technical Accuracy Review program, we monitor the quality of Gulf War claims and offer feedback to the field offices, if appropriate. A review of VA's nationwide accuracy data for Gulf War claims through June 2012 reveals a 6.8 percent improvement in quality since the release of the Gulf War training letter in February 2010. The improvement in quality is also attributed to the establishment of a dedicated mailbox for individuals who work Gulf War and other environmental hazard claims. Claims representatives from the 57 regional offices frequently send in questions and concerns regarding claims-specific issues. Through these inquiries and other casespecific inquiries, we are able to troubleshoot the current process and refine existing Gulf War adjudication policies, as appropriate.

In addition to efforts within VBA, VHA's Office of Disability and Medical Assessment (DMA) is tasked with oversight of all disability evaluation services including those conducted within VHA, through national contracts, and in the Integrated Disability Evaluation Program (IDES). VHA's DMA office supported VBA's development and deployment of the Disability Benefits Questionnaires (DBQ). DBQs are designed to help medical providers clearly and easily document the ratable criteria necessary for VBA to rate a claim. This results in more accurate and timely claims processing. The DBQs specific to the Gulf War were released in 2011 and continue to be updated as needed.

#### Current Efforts:

VA continues to work with DoD to develop a separation health assessment program that will indicate, at time of discharge, the Servicemember's health status as well as occupational and environmental exposure information, where it is available. This will support/assist Veterans trying to prove exposure or conditions related to an event on active military service, when the events or exposures may not have clinically significant health consequences for many years after the event. The experience of Gulf War Veterans has added to the drive to achieve this valuable joint process.

VA also continues to work with regional offices to ensure that Gulf War claims are processed accurately. This includes offering feedback to adjudicators who are responsible for processing Gulf War claims, and providing reminders through national conference calls, policy letters, and other training materials.

#### Public Comment Feedback:

Numerous comments have been received from the public regarding the process for determining which conditions are considered qualifying disabilities for those who served during the Gulf War. Numerous scientific studies have been conducted to investigate possible causes and associations between Gulf War Veterans and these illnesses. The National Academy of Sciences' Institute of Medicine (IOM) has also conducted a series of reviews of scientific literature documenting research in these areas to identify and explain disability patterns associated with Gulf War service in terms of the potential health hazards experienced in the Southwest Asian environment. In response to these reviews and various laws that have been passed, VA has created a regulation in 38 C.F.R. §3.317 that reflects the results of the scientific studies and statutory requirements. VA recognizes the disabilities and disability patterns which have been validated by scientific research in the regulation as qualifying disabilities for Gulf War Veterans for purposes of payment of disability compensation.

Last, VA has received public comments regarding VA decisions on both "Undiagnosed Illnesses" and "Medically Unexplained Chronic MultiSymptom Illnesses." The GWVI-TF recognizes that the application of the rules regarding these issues is difficult to understand and implement. 38 C.F.R. §3.317 provides a list of specific presumptive disabilities that will be service-connected in a Veteran with a qualifying period of service in the Southwest Asia theater of operations. The conditions must become manifest to a degree of 10 percent or more within 1 year from the date of separation from the qualifying period of service. In addition to the specific presumptive conditions noted in §3.317, there are two distinct categories that are also considered qualifying conditions for purposes of administering disability compensation.

The first category is "undiagnosed illnesses," which may manifest with symptoms such as fatigue, signs or symptoms involving skin, headache, etc. Although this category, by definition, cannot be associated with a diagnosis, it is nonetheless subject to service connection. However, if a medical doctor links one of the listed symptoms to a disease, then service connection may not be warranted, (e.g., doctor links the Veteran's claimed "fatigue" to hypothyroidism).

The second category is: "medically unexplained chronic multisymptom illnesses." This category refers to *diagnosed* illnesses that are without conclusive pathophysiology or etiology and are characterized by a cluster of signs and symptoms featuring fatigue, pain, disability out of proportion to physical findings, and inconsistent laboratory findings. Illnesses that are partially understood in terms of etiology are not considered "medically unexplained." Examples of unexplained chronic multisymptom illnesses are provided in § 3.317. They include, but are not limited to: (1) chronic fatigue syndrome;

(2) fibromyalgia; and (3) functional gastrointestinal disorder. Service connection is appropriate for any of these when diagnosed.

The issue of whether a Veteran's particular disability pattern is linked to a conclusive or partially understood etiology, or represents one of the disability patterns listed above, must be determined on a case-by-case basis and will require a medical opinion.

#### <u>Plan:</u>

VBA will continue to participate in the VA/DoD Deployment Health Working Group to identify environmental exposures related to the Gulf War. Because of the complexity of Gulf War claims processing, VBA will continue to focus on quality improvement, which will include monitoring of nationwide quality trends, analyzing fact patterns for specific Veteran cases, and providing remedial training and reminders, as necessary.

#### Metrics and Accountability:

Continue to monitor research and studies on potential exposures to environmental hazards in the Gulf War.

#### Veteran Outreach: Improving Communications to Gulf War Veterans

#### Background:

VA is dedicated to improving the lives of Veterans of all eras and their eligible family members and survivors by providing them with the benefits and services they have earned. Intrinsic to VA's work is the need for the Department to actively engage its Nation's heroes and to educate them, their families, and their survivors about the benefits and services they may be eligible to receive. Outreach must be proactive and systematic in order to provide important information and assistance on VA's services and benefits.

#### Current Efforts:

OPH collaborated with CDC to obtain IRS mailing addresses for the entire list of Operations Desert Storm and Desert Shield deployed individuals. VA's past outreach mailings were limited to those who self-referred to the Gulf War Registry (about 130,000) and provided mailing addresses. Through this collaboration with CDC, VHA will expand its outreach to all those (about 700,000) who deployed to the Gulf War. OPH is planning to mail a one-page Gulf War Overview fact sheet in the early spring 2013.

OPH's GWVI Web site, www.publichealth.va.gov/exposures/gulfwar, continues to be an essential, central communication channel to Veterans, VA facilities and Veterans Service Organizations (VSO). This year, OPH used feedback from Gulf War Veterans and staff to improve the content and layout of the Web site in order to make it more user-friendly. OPH also developed a new navigational tool with feedback from Gulf War Veterans, other Veterans, and staff. The tool, "4 ways to find exposures," enables Veterans and others to look for exposure information by related health concerns, wars and operations, exposure categories, and exposure topics (A to Z).

VHA also promotes Gulf War Veterans' health news and updates via e-mails to Web site subscribers, Facebook posts, and tweets. Topics include GWVIs and other information such as how to obtain a Gulf War registry evaluation. VHA published a news release on the extension of compensation benefits for Gulf War Veterans with undiagnosed illnesses on the anniversary of the start of the war.

This year, OPH was given approval by the Office of Management and Budget to include a customer survey in its Gulf War Review newsletters to ask Gulf War Veterans such questions as what features they like most, how useful the information is, and best ways for them to receive information. This survey will enable VHA to obtain systematic feedback on these products from their intended audience.

In addition, OPH has created a Post-Deployment Health Veterans Community Board, which includes of Gulf War Veterans, to provide Veteran feedback on the effectiveness of outreach and educational efforts on deployment related health topics.

Research is important in understanding the adverse health effects associated with deployment and in improving the care provided to Gulf War Veterans. OPH features the findings of its Gulf War research on its Web site. OPH had promoted the third in a series of Gulf War health surveys via a news release, social media, e-mail announcements, and personal stories.

ORD has developed a new brochure that covers the range of VA-sponsored Gulf War research as well as a fact sheet on the Gulf War strategic research plan. ORD exhibited at several annual conventions of VSOs, reaching out to some 64,000 Veterans, many of them from the Gulf War.

#### <u>Plan:</u>

In 2013, we will update and implement a GWVI communications plan. The following describes the elements of this plan:

#### Theme:

Engaging with Gulf War Veterans to understand what they need and care about in terms of VA services is key to improving how the Department serves and responds to these Veterans.

#### Messages:

Overarching message: VA has not forgotten the service and dedication of Veterans of the 1990-1991 Gulf War and is committed to working to improve their health and well-being. We continue to provide health care and benefits and to invest in research to better understand and treat GWVI. Besides the health care and benefits that have been provided since 1991 and research that began shortly afterward, efforts currently include:

- Carrying out the third health survey since 1995 of 30,000 deployed and non-deployed Gulf War Veterans;
- Publishing a 5-year strategic plan for research;
- Supporting a wide array of studies, especially those aimed at developing new treatments and improving existing ones; and
- Improving delivery of care and support for Gulf War Veterans via the multiple initiatives of the GWVI-TF.

VA is improving access to benefits and services for Gulf War Veterans and Veterans of other eras. We are making it easier for Veterans and their families to receive the right benefits, meeting their expectations for quality, timeliness, and responsiveness.

Sustained outreach will not only educate Veterans and their families about VA's excellent health care, benefits and services, but empower Veterans to make more informed decisions concerning health care and benefits.

#### Outreach Strategy:

VA will engage stakeholders, continuing to use Veterans' responses to this report and to social media. OPH will analyze and act upon the results of the survey of the Gulf War Review newsletter. We also expect to learn from our interactions with the Gulf War Veterans on the newly formed Post-Deployment Health Veterans Community Board.

The Department, through GWVI-TF, will provide regular updates on the implementation of the outreach strategy through established channels, including:

- Regular Gulf War Web site updates;
- Postings on Facebook and Twitter;
- Press releases and announcements;
- Publications that provide news and information;
- Briefings to Congressional staff and members; and
- Media interviews.

Other strategies are:

- Engaging VSOs that serve Gulf War Veterans, and provide them timely updates while releasing this related information on VA Web sites.
- Continuing to use social media in communications efforts, especially amplify bi-directional communication and gain direct feedback from a significant number of Veterans. Current social media efforts include: VA and VHA Web sites, VA and VHA Facebook and Twitter, and the VA Blog.
- Continuing to improve communications distribution methods: Printed materials (reports, posters, brochures) are sent to individual Veterans, VA facilities, and VSOs. To enhance effectiveness and efficiency while reducing costs, better design of Web-based information will be used. Additionally, VA will continue to provide messages for local VA and VSO newsletters and for social media. Periodically printed updates are distributed to Gulf War Veterans and Veterans in the Gulf War Registry have information mailed directly to them. Others can also request news be e-mailed to them by signing up for Gulf War Veterans health issues at: http://www.publichealth.va.gov/exposures/gulfwar/index.asp and for other exposure updates at: http://www.publichealth.va.gov/exposures/.

Stakeholders: Communication concerning Gulf War issues and news are being planned for multiple audiences:

- Gulf War Veterans and their families;
- Media;
- VSOs;
- Members of Congress and their staff;
- VA employees;
- VA program offices;
- Non-governmental organizations; and
- DoD.

Vehicles: A variety of vehicles will be used to reach these audiences:

- Announcements;
- Email;
- Direct mail;
- Facility newsletters, e-bulletin boards;
- Web sites;
- Facebook; and
- Twitter.

#### Metrics and Accountability:

Outreach efforts will be reported at regular GWVI-TF meetings to discuss efforts, impacts, and support required from Task Force members to facilitate content for outreach. Results of communications research and feedback via the newsletter survey, suggestions of the Veterans Community Board, social media, and other means will be captured to better inform the discussion and shape future efforts.

## Partnerships: Improved Data Sharing with DoD

#### Background:

DoD and VA provide health care and benefits to the same population at different times in their lives. Environmental exposures occur during active duty whereas the potential clinical consequences often manifest later when the former Servicemember is a Veteran. For this reason it is critical that VA and DoD share clinical and exposure data. Confidentiality provisions, such as the Privacy Act and the Privacy Rule implementing the Health Insurance Portability and Accountability Act (HIPAA) of 1996, generally prohibit disclosures of personal information without the individual's authorization and can make data sharing between Federal agencies challenging. Improved data sharing is an important component in providing optimum clinical care to Gulf War Veterans.

#### Current Efforts:

**Deployment Health Working Group (DHWG):** Increased VA/DoD collaboration and information sharing strengthens and identifies potential gaps in Gulf War related research. The DHWG identifies and develops recommendations for coordinated response plans to potential environmental hazards. The following actions have been taken to improve VA/DoD information sharing and research collaboration:

- A robust VA/DoD Data Transfer Agreement (DTA) is essential to facilitate research and medical surveillance on Veterans exposed to potential environmental hazards during deployment. DoD completed staffing the DTA through the military services in 2012 and it is now in the final stages of concurrence within VA. During the past year, DHWG has monitored new studies related to burn pit exposure and drafted a Joint Airborne Hazards Action Plan which addressed both operational and research activities of the DoD and VA.
- In 2012, the Joint Executive Council (JEC) tasked the DHWG to create a joint VA/DoD plan to respond to environmental exposures. The plan, which was approved by the JEC, included a proposal to develop the Integrated Lifetime Exposure Record (ILER) to document military exposures. The ILER will enable DoD occupational experience to be viewed as part of VA health care systems.

**Congressionally Directed Medical Research Programs (CDMRP):** VA Office of Research and Development (ORD) staff continues to remain engaged with DoD staff to collaborate more closely to coordinate research efforts. VA participated in several additional meetings with CMRDP and discussed collaborative efforts regarding funding and programs. In December 2011, ORD's Gulf War research portfolio was presented during a CDMRP online teleconference. This was followed-up by a CDMRP visionsetting meeting in January 2012, where ORD participated in discussions of research directions. In February 2012, ORD members met with the senior CDMRP staff to discuss possible mechanisms for collaborating in funding research, and CDMRP staff briefed VA Gulf War researchers at a VA meeting held in September 2012.

#### Plan:

In 2013, VA will continue to build successful partnerships that will improve research and clinical care for Gulf War Veterans. Key components of this plan will be a finalized DTA, continued monitoring of environmental exposures, fostering of VA/DoD collaboration on deployment related research and surveillance, and continued work on the VA/DoD integrated Electronic Health Record (iEHR).

#### Metrics and Accountability:

- Leverage DHWG reporting to high level DoD/VA JEC as requested.
- Staff the VA/DoD DTA (currently in VA staffing process).
- Continue monitoring research and issues related to potential environmental toxicants encountered by Gulf War Veterans.
- Monitor monthly "In-Progress Reviews" on the iEHR program.
- Develop proposals for ILER.

## Ongoing Scientific Review and Population-Based Surveillance: Taking Advantage of Untapped Sources of Data Related to Veterans' Health

#### Background:

Ongoing scientific review is critical to understanding the environment that impacts health. Veterans' health related data and information are reported from sources other than studies conducted by VA. Having access to and understanding reports is important to comprehending the complex array of adverse health effects associated with deployment. Additionally, it is important to expand and continue VA funded long-term studies of Veterans' health as it relates to deployment and associated environmental exposures. Data from all these activities helps inform policy makers of the adverse health effects associated with deployment, provides information relative to treatment, and identifies future potential preventive strategies.

In some well-defined environmental exposures, medical surveillance can prevent disease or allow the early detection of disease. Exposure to chromium at Qarmat Ali, radiation, and depleted uranium, and toxic fragments are examples of well-defined exposures with known potential clinical sequelae. These programs are well-established but are dependent on clinical providers being aware that they are available for Veterans. Throughout VA there will be continued emphasis on educating medical providers on these programs, and ensuring that evolving knowledge and understanding of these complex issues can be quickly leveraged for care of Veterans. The key enablers for getting this information from these programs to providers are clinical education and publication of findings in the peer-reviewed medical literature.

#### Current Efforts:

## Veterans Health Examination Survey – Comprehensive Assessment of the Health Status of All Veterans

 This observational study, consisting of a series of cross-sectional health assessments of all Veterans via a combination of telephone interviews and in-person examinations, will expand current epidemiologic studies of the health effects of military service, deployment, and environmental exposures among U.S. Veterans. A principal aim of the proposed health assessments is to advance the understanding of the effects of potential environmental exposures on health as well as the effects of the deployment as a whole.

**Collaboration with Centers for Disease Control and Prevention (CDC)/National Center for Health Statistics (NCHS):** Increased collaboration with CDC/NCHS provides an opportunity to collect and examine data related to Veterans' health from a national sample of the U.S. population. The data collected by the CDC/NCHS may expand our understanding of the range of illnesses associated with deployment to the Gulf and other theaters of operation. The following actions have been taken to expand health related data collection on Veterans:

- VA has worked with CDC/NCHS to ensure Veteran-specific identifying questions and analyses are included in two major longitudinal health related national surveys: the National Health and Nutrition Examination Survey (NHANES), and the National Health Interview Survey (NHIS).
- In 2011, NHANES and NHIS added detailed questions regarding Veteran status to ascertain better enumeration of participants who have served in the military. The precise wording of the questions was agreed upon by both NHANES and NHIS.

The NHANES program began in the early 1960s and has been conducted as a series of surveys focusing on different population groups or health topics. In 1999, the survey became a continuous program that has a changing focus on a variety of health and nutrition measurements to meet emerging needs. The survey examines a nationally representative sample of about 5,000 persons each year.

NHIS is the principal source of information on the health of the civilian noninstitutionalized population of the U.S. and is one of the major data collection programs of the NCHS which is part of CDC. The National Health Survey Act of 1956 provided for a continuing survey and special studies to secure accurate and current statistical information on the amount, distribution, and effects of illness and disability in the U.S. and the services rendered for or because of such conditions. The survey referred to in the Act, now called the National Health Interview Survey, was initiated in July 1957. Since 1960, the survey has been conducted by NCHS, which was formed when the National Health Survey and the National Vital Statistics Division were combined.

**Collaboration with the DoD Millennium Cohort Study (MCS):** The MCS is examining the health related effects of deployment on military personnel and Veterans. As with the CDC/NCHS studies, the data collected by the MCS may expand our understanding of the range of illnesses associated with deployment. To expand collection of health related data on Veterans from this study, representatives from VHA Offices including OPH and ORD, have met with MCS investigators on multiple occasions. OPH has worked with MCS investigators on multiple occasions to design and conduct a study of respiratory symptoms among study participants who have separated from active duty. This collaboration is proceeding well and a peer-reviewed journal article is being finalized. OPH has nearly finalized an agreement with the MCS to place an epidemiologist and a statistician at MCS to collaborate on Veteran-specific studies.

**Conduct a National Health Study for a New Generation of U.S. Veterans:** The Epidemiology Program (EP) within OPH is conducting a study on the health status of 60,000 Veterans who have separated from active duty, National Guard, or Reserves, half of whom served in either Iraq or Afghanistan and half who did not. This includes an

oversampling of women Veterans to permit an appropriate examination of health effects associated with deployment in this group. The following actions have been taken:

- Data collection is complete and preliminary results became available in late 2012. Initial studies are focused on respiratory illness and Traumatic Brain Injury.
- The pilot of a clinical follow-up study was initiated in the 2<sup>nd</sup> quarter FY 2012.

Explore the feasibility of examining military working dog (MWD) health records to identify diseases common to deployed military personnel and deployed MWDs. The following actions have been taken:

- VHA negotiated with MWD Center at Lackland Air Force Base and with the Armed Forces Institute of Pathology (now the Joint Pathology Center) to create a research database.
- A project has begun to review MWD health records. These health records represent the clinical history of MWDs deployed to the Gulf and other regions. These dogs were exposed to the same environmental hazards as military personnel and therefore, may serve as sentinels for adverse health effects in humans. Data collection began during the Fall 2012.

#### Study of Post-War Mortality from Neurological Disease in Gulf War Veterans:

The second phase of the study of post-war mortality from neurological disease in Gulf War Veterans has completed data collection; data validation and analyses are underway with results expected in early 2013. The third phase of the study scheduled for solicitation in FY 2013 will extend the population under study to include Veterans of Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn (OEF/OIF/OND).

## Follow-up study of an established permanent panel of 30,000 deployed and non-deployed Veterans from the 1990-1991 Gulf War period:

This study is examining health trends over time and the current status of the health of 1990-1991 Gulf War Veterans. The pilot phase of the study was initiated in May 2012 with the main survey beginning mid-September 2012. Baseline and follow-up data were previously collected (1995 and 2005). The survey is using postal and Web-based surveys and telephone interviews to collect information. Completion of data collection is planned for 2013, and results should be available for publication in late 2013 or 2014.

#### Depleted Uranium (DU) Surveillance:

The purpose of the DU surveillance program is to determine DU related health effects in exposed soldiers and to study the medical and surgical management of fragments. Submitted by VA providers, 3,192 urine samples have been screened for DU with 4 Veterans found to have a positive screen. Seventy-nine Veterans with documented DU exposure (mainly from embedded fragments) have been followed every 2 years since 1993. Veterans travel to the Baltimore VAMC and have had a complete medical

examination with extensive laboratory studies to include urine, semen and blood uranium, chromosomal analysis, and neurocognitive testing.

No clinical diseases have yet been attributed to DU. This well-established program is now evaluating new Veterans from current conflicts. It is vitally important that clinical providers are aware of this program and understand how to refer Veterans, or Veterans know to request referrals if they are aware of exposure to DU.

#### Toxic Embedded Fragment Surveillance Center (TEFSC) and Registry:

As many as 40,000 Veterans may have retained fragments secondary to being exposed to explosions. The TEFSC was established to create a registry of wounded Veterans with retained fragments; determine fragment composition, provide biomonitoring services (via mail), assist in medical and surgical management guidelines for Veterans with fragments, and provide consultation to local providers concerning care and management of patients. As with the DU program described above, the key to this successful program is wide dissemination of knowledge of this resource among clinical providers and Veterans. OIF/OEF/OND Veterans are flagged through clinical reminders in the electronic medical record prompting their care team to screen for embedded fragments.

#### Qarmat Ali Medical Surveillance Program:

Although this surveillance program focuses on environmental exposure during OIF, it is noted here because it is a first effort to systematically monitor the health of a group of deployed personnel post-exposure through a well-defined medical surveillance program. In July 2010, VA started contacting affected Veterans by phone and offered enrollment in the Qarmat Ali medical surveillance program. This initial phone contact was followed by a letter signed by both Secretary Shinseki and former DoD Secretary Gates. Currently, 794 out of a possible 830 Veterans have been contacted either by letter or phone. Inevitably some addresses are out of date and VA and DoD are continuing to find addresses and contact all remaining Qarmat Ali Veterans. To date, 135 Veterans have obtained medical surveillance exams. Medical exams will be repeated every 5 years to monitor the health of each Veteran exposed to chromium.

Plan:

#### CDC/NCHS:

The studies associated with the CDC/NCHS collaboration are intended to continue for as long as the CDC/NCHS maintain their efforts in this area.

Veteran-specific data from NHIS and NHANES became available in the fourth quarter of 2012. The benefit of these data will depend upon the need to accumulate sufficient numbers of subjects who are Veterans in order to accomplish meaningful statistical analyses, as well as NCHS and VA resources.

**MCS** was initiated by DoD in 2001 and is scheduled to continue until 2022. VA plans to continue to examine Veteran-specific data related to health outcomes through the end of the study.

**The National Health Study for a New Generation of U.S. Veterans** was funded through its first iteration. VA is planning to repeat the study, contingent on resources, in 2013.

**MWD Studies** are at present a feasibility study designed to determine the value of examining MWD health records for adverse health effects and the utility of using MWDs as a sentinel population for human health. Whether or not this effort continues will be dependent on the value of the data collected for this purpose and the availability of resources.

The Study of Post-War Mortality from Neurological Disease in Gulf War Veterans is a follow-up study. We plan to continue this study at approximately 5-year intervals as findings suggest and resources are available.

**DU Surveillance** is a long-term surveillance effort. These Veterans will be followed for years to monitor their health and newly identified Veterans will be brought into the program as they are identified. Information gleaned from the program will identify long-term sequelae if they occur, help to identify treatment if appropriate, and inform prevention strategies where applicable. VHA Handbook 1303.1, Evaluation Protocol for Gulf War (Including Operation Iraqi Freedom) With Potential Exposure to Depleted Uranium (DU), is under revision and expected to be finalized in FY 2013.

**TEFSC** will continue to determine fragment composition, provide biomonitoring services (via mail), assist in medical and surgical management guidelines for Veterans with fragments, and provide consultation to local providers concerning care and management of patients. New Veterans will be enrolled in the registry as required. A new VHA handbook is under review that aims to improve program guidance. Publication is anticipated in FY 2013.

The **Qarmat Ali Medical Surveillance** program will monitor the health of the Veterans for decades. Additionally, the program itself, established as a new way to monitor the health of Veterans potentially exposed to an environmental toxicant during deployment, will be evaluated by sending questionnaires to Veterans who did not participate in the initial exam or have not returned for the 1-year follow-up exam.

VA will continue to work with DoD to evaluate the health status of these Veterans, DoD civilian employees, and Servicemembers during FY 2013 and intends to publish these findings in a peer-reviewed journal.

#### Metrics and Accountability:

These studies are longitudinal and long-term by design. Where reasonable for each study, date of availability of results serves as the essential metric. It is worth noting that

these dates are estimates as the study process is dependent on contracting, availability of resources, and other factors that are often beyond the control of the study proponents.

Results of studies will be presented in peer-reviewed publications and data will be presented in appropriate scientific and other forums, informing Veterans and the public of study results, ensuring that study findings are considered in discussions of presumption of service connection as appropriate, and informing Congress of new information related to the health of Veterans post-deployment.

For all surveillance programs, VA will initiate the appropriate treatment and prevention strategies and inform research strategies as indicated by the information being collected.

## **Research and Development: Encouraging Targeted Efforts**

#### Background:

ORD funds research that will further the goal of improving the health and lives of Veterans who have GWVI, which refers to the complex of chronic symptoms that affects Veterans of the 1990-1991 Gulf War at an excess rate. The illnesses are characterized by persistent symptoms such as chronic headache, chronic widespread pain, cognitive difficulties, unexplained debilitating fatigue, gastrointestinal problems, respiratory symptoms, subtle neuropsychological symptoms, and other abnormalities that are not explained by familiar medical or psychiatric diagnoses.

Particular areas of VA ORD interest include studies that can improve diagnostic testing for GWVI and/or understanding of its pathobiology. These include research on objective indicators of biological processes or abnormalities in GWVI. ORD also funds controlled clinical trials and epidemiological investigations of the effectiveness of new pharmacological or non-pharmacological treatments for GWVI. In addition, ORD is committed to funding research that improves VA's understanding and ability to treat illnesses, such as Amyotrophic Lateral Sclerosis and Multiple Sclerosis (MS), which may occur at higher prevalence in Gulf War Veterans.

#### Current Efforts:

#### Maintain and Promote a Robust Gulf War Research Portfolio:

ORD continues to refine its focus on Gulf War related research. The Director of Deployment Health Research and the Program Manager for GWVI/Military Environmental Exposures research portfolio lead this effort.

Research proposals continue to be regularly solicited by ORD through requests for applications (RFA). Five different types of Gulf War research projects are requested in five different RFAs which are released twice per year. There is an effort underway to increase the number of VA researchers involved in Gulf War research. A meeting of VA Gulf War researchers was held in September 2012, to improve communication between researchers and ORD and to encourage collaborations among investigators.

The VA Gulf War research portfolio was presented to the VA's Research Advisory Committee on Gulf War Veterans' Illnesses (RACGWVI) in January and June 2012 and to the National Research Advisory Council (NRAC) in February, June, and September, 2012. In their advisory capacity, these committees make recommendations regarding the research program. The listing of the membership of the RACGWVI is available in Appendix B, and of the NRAC in Appendix C.

VA's Gulf War Program Manager also presents VA's Gulf War research portfolio as part of the annual vision setting meeting for the Gulf War Illness Research Program (GWIRP) within the Congressionally Directed Medical Research Programs (CDMRP), managed by DoD. The scope of the VA Gulf War research portfolio (types of projects funded as well as specifics about individual funded projects) and all upcoming RFAs are discussed at this meeting. This allows VA and CDMRP to maintain coordination between their respective Gulf War research programs. The VA Gulf War research portfolio was presented and discussed at both 2012 meetings of the RACGWVI and at two of the NRAC meetings. This allows RACGWVI and NRAC to maintain their understanding of the activities within VA's Gulf War research program so that appropriate recommendations may be formulated.

Two major service-directed Gulf War research projects were launched this year. In September 2012, the Gulf War Era Cohort and Biorepository received final approval to begin enrolling Veterans. Gulf War Veterans will be asked to donate blood and complete a health care questionnaire for this project. The Gulf War Veterans' Illnesses Biorepository is a pilot repository for autopsy tissue from Gulf War Veterans from across the U.S. The tissue biorepository became active on July 9, 2012 and has enrolled seven Veterans to date.

#### New Strategic Plan for Gulf War Research:

As previously reported, the GWSC met on April 20, 2011, to develop a new Strategic Plan for VA Gulf War research. The intent of the Gulf War Research Strategic Plan is to complement the existing VA Research and Development Strategic Plan, which is the strategic plan for all research in ORD. The listing of the membership of the GWSC is available in Appendix D.

The Steering Committee Chair presented a draft Strategic Plan at the June 27-28, 2011, meeting of the RACGWVI. The Steering Committee made suggestions for improving the draft Strategic Plan, and between September 2011 and January 2012, 10 working groups (composed of Veterans and subject matter experts recommended by VA or the RACGWVI) met to address deficiencies that existed. On January 31, 2012, the Steering Committee Chair presented the revised draft Strategic Plan to the RACGWVI. The plan was also reviewed by the NRAC on February 22, 2012. The issues raised by these two advisory committees were reviewed, and in June 2012 the RACGWVI and NRAC were asked for additional comments. The Strategic Plan was approved in early 2013 and was posted on the ORD Web site. The Gulf War Research Strategic Plan will also be reviewed each year and modified as necessary.

<u>Plan:</u>

#### Gulf War Research Portfolio:

#### Investigator Initiated Gulf War Research

Twice per year, ORD will reissue five RFAs, two of which will specifically solicit pilot project applications. Special RFAs will be issued as appropriate.

The lists of topics of interest for these RFAs incorporate over 80 percent of the research recommendations contained in the 2008 report from the RACGWVI and recent

RACGWVI input to ORD. These lists are also fully aligned with the major elements of the current draft Gulf War Research Strategic Plan as modified following suggestions from the 10 working groups, the RACGWVI, and the NRAC. A timeline for implementing the Gulf War Research Strategic Plan has been developed. A joint VA/DoD review of Gulf War research programs is also being planned for the first half of 2013.

An area of emphasis for the Gulf War Research Portfolio is to increase the involvement of VA researchers and to increase the number of proposals submitted to ORD for evaluation and possible selection for funding. ORD plans to assist potential researchers in proposal planning to include help in designing effective treatment trials and help in recruiting sufficient numbers of participants. ORD will also initiate awards for Gulf War researchers. As a follow-on activity from the recent researchers meeting (September, 2012), ORD will hold regular teleconferences and create online mechanisms for researchers to share information.

#### Service-Directed Gulf War Research

ORD is reviewing recently completed, single-site treatment trials involving Gulf War Veterans to determine if larger-scale follow-up projects at multiple sites are warranted.

Two other service-directed pilot Gulf War research projects have moved from the "development" stage to the point where Veterans can be enrolled. They will facilitate clinical trials and other investigative studies on this population of Veterans by helping to locate appropriate research subjects.

The Gulf War Era Cohort and Biorepository (CSP 585) is a pilot project which will begin to enroll Gulf War-era Veterans in early 2013. This will create a new longitudinal cohort of Veterans from across the U.S., regardless of whether or not they receive their health care from the VA health care system. This new study will request that Veterans donate blood and complete a newly-developed questionnaire on health care utilization and symptoms. Gulf War Veterans who agree to participate will also agree to be contacted about participating in other Gulf War studies. The cohort will be a resource for other investigators to utilize for future research projects.

The Gulf War Veterans' Illnesses Biorepository (CSP 501B) is a pilot repository for autopsy tissues from Gulf War Veterans from across the U.S. Now that the project has been launched, the main effort will be to inform Veterans and their families, VSOs, and other interested parties about the project. More information is available at http://www.research.va.gov/programs/tissue\_banking/gwvib/.

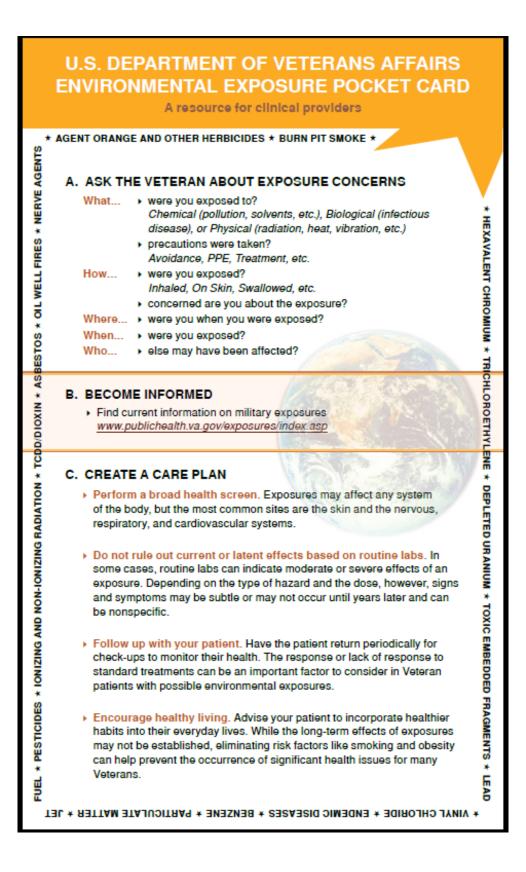
#### Metrics and Accountability:

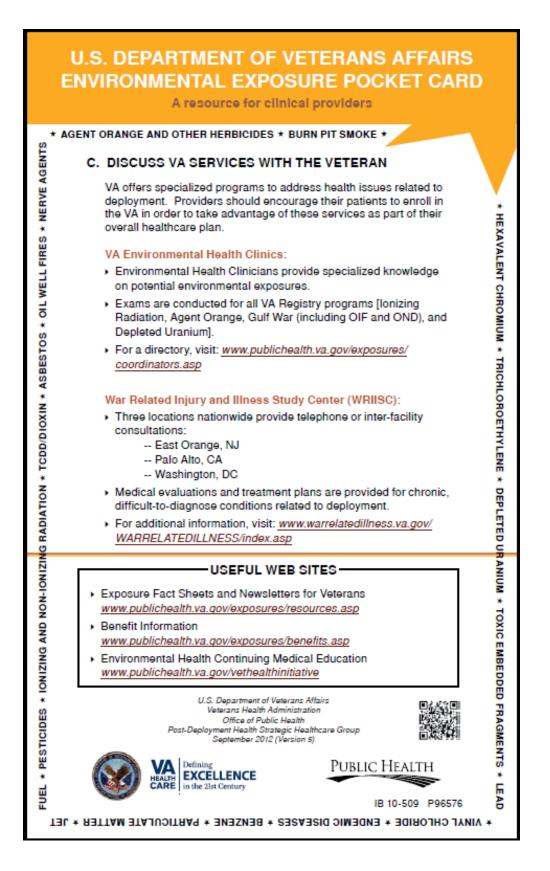
The VA Gulf War Program Manager presents the VA Gulf War research portfolio as part of the annual vision setting meeting for the GWIRP within the CDMRP, managed by DoD. The scope of the VA Gulf War research portfolio (types of projects funded as well as specifics about individual funded projects) and all upcoming RFAs are discussed at this meeting. This allows VA and CDMRP to maintain coordination between their respective Gulf War research programs. In response to the two sets of RFAs issued in 2012, 31 proposals were received and 6 were recommended for funding. This represents increases in submissions and funding success rates over previous years.

The VA Gulf War research portfolio is presented and discussed at meetings of the RACGWVI and NRAC. This allows the advisory committees to maintain their understanding of the activities within VA so that appropriate recommendations may be formulated.

VA is the lead agency for preparing the Annual Report to Congress on Federally Sponsored Research on Gulf War Veterans' Illnesses that is required by § 707 of Public Law 102-585, as amended by § 104 of Public Law 105-368 and § 502 of Public Law 111-163. The report focuses on the results, status, and priorities of research activities related to the health consequences of military service in the Gulf War (Operations Desert Shield and Desert Storm; August 2, 1990, - July 31, 1991). The 2011 Annual Report to Congress was released in September 2012 and can be found at: http://www.research.va.gov/resources/pubs/pubs\_individual.cfm?Category=Gulf%20Wa r%20Reports. Funding totals for Gulf War research taken from the 2011 report are summarized in Appendix E.

### **APPENDIX A – Gulf War Veterans Illnesses Provider Pocket Guide**





## APPENDIX B – Research Advisory Committee for Gulf War Veterans' Illnesses

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## **APPENDIX C – National Research Advisory Council**

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## **APPENDIX D – Gulf War Steering Committee Members**

CHAIRPERSON			
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MEMBERS David Christiani, M.D., MPH Harvard School of Public Health and Harvard School of Medicine 665 Huntington Avenue Building I Room 1407 Boston, MA 02115	Roberta White, Ph.D. Professor and Chair, Department of Environmental Health Associate Dean for Research Boston University School of Public Health 715 Albany StTalbot 4W Boston, MA 02118		
Tilo Grosser, M.D. Institute for Translational Medicine and Therapeutics University of Pennsylvania 809 Biomedical Research Building II/III 421 Curie Blvd Philadelphia, PA 19104	Richard Wenzel, M.D., M.Sc. Professor and Chair, Department of Internal Medicine VCU Medical Center 1001 E. Board St. Old City Hall P.O. Box 980663 Richmond, VA 23284		
Anthony Hardie 1722 N. Sherman Ave. Madison, WI 53704	Robert Kelch, M.D. 20 Streamwood Drive South Haven, MI 49090		
Loren Koller 325 NE Mistletoe Circle Corvallis, Oregon 97330			
James O'Callaghan, Ph.D. CDC-NIOSH 1095 Willowdale Road Morgantown, WV 26505			

<b>APPENDIX E – Vetera</b>	ns Affairs GWVI Research
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Fiscal	VA*	UTSW	DoD*	HHS*	FY Total
Year		Contract**			
1994	\$ 1,157,879	\$ 0	\$ 6,492,882	\$ 0	\$ 7,650,761
1995	\$ 2,334,083	\$ 0	\$ 10,973,000	\$ 2,514,762	\$ 15,821,845
1996	\$ 3,853,095	\$ 0	\$ 11,905,214	\$ 1,616,755	\$ 17,375,064
1997	\$ 2,834,790	\$ 0	\$ 28,880,536	\$ 0	\$ 31,715,326
1998	\$ 4,722,820	\$ 0	\$ 13,213,232	\$ 1,634,347	\$ 19,570,399
1999	\$ 9,006,155	\$ 0	\$ 22,674,338	\$ 1,640,378	\$ 33,320,871
2000	\$ 12,020,519	\$ 0	\$ 23,847,679	\$ 1,567,439	\$ 37,435,637
2001	\$ 8,576,675	\$ 0	\$ 31,587,006	\$ 998,870	\$ 41,162,551
2002	\$ 4,512,676	\$ 0	\$ 18,827,819	\$ 799,814	\$ 24,140,309
2003	\$ 5,746,467	\$ 0	\$ 16,419,497	\$ 964,105	\$ 23,130,069
2004	\$ 7,644,560	\$0	\$ 11,096,063	\$ 466,126	\$ 19,206,749
2005	\$ 9,484,679	\$ 0	\$ 10,091,848	\$ 466,481	\$ 20,043,008
2006	\$ 13,013,552	\$0	\$ 10,128,261	\$ 455,587	\$ 23,597,400
2007	\$ 7,059,061	\$15,000,000	\$ 3,417,570	\$ 441,974	\$ 25,918,605
2008	\$ 6,934,214	\$15,000,000	\$ 11,672,967	\$ 433,467	\$ 34,040,648
2009	\$ 9,628,318	\$ 6,972,481	\$ 10,380,423	\$ 0	\$ 26,981,222
2010	\$ 11,567,997	\$ 2,288,755	\$ 10,384,231	\$0	\$ 24,240,983
2011§	\$ 5,537,539	\$ 31,472	\$ 3,347,000§	\$0	\$ 8,916,011
Total 1994-2011	\$125,635,079	\$39,292,708	\$255,339,566	\$14,000,105	\$434,267,458

\*Funds expended to support Gulf War research projects.

\*\* Funds obligated for reimbursement to UTSW at completion of contracted work on individual task orders.

§ The DoD total does not include CDMRP's FY2011 Gulf War funds.

Expenditures for FY2012 are currently being collected and were not available for this report.

## **APPENDIX F – Gulf War Veterans' Illnesses Task Force Members**

CHAIRPERSON	
<b>John Gingrich</b> VA Chief of Staff	
MEMBERS	
Mr. Thomas Murphy Director, Compensation Service, VBA	<b>Robert Jesse, M.D., Ph.D.</b> Principal Deputy Undersecretary for Health, VHA
Mr. Keith Hancock	<b>Gavin West, M.D.</b>
Chief of Legislative Staff, Compensation	Chief, Primary Care
Service, VBA	Salt Lake City VAMC, VHA
Mr. Brad Flohr	<b>Stephen Hunt, M.D.</b>
Assistant Director for Policy,	Persian Gulf Registry Physician
Compensation Service, VBA	Puget Sound Health Care System, VHA
Ms. Susan Schiffner	<b>Mr. Michael Collins</b>
Health Science Specialist, VHA	Deputy Director, Policy Analysis Service,
Joel Kupersmith, M.D.	OPP
Chief, ORD, VHA	<b>Michael Peterson,</b> DVM, MPH, DRPH
William Goldberg, Ph.D.	Chief Consultant, Post Deployment
Scientific Program Manager, ORD, VHA	Health, OPH, VHA
<b>Robert Jaeger, Ph.D.</b>	<b>Terry Walters, M.D., MPH, M.S., C.P.E.</b>
Director, Deployment Health Research,	Deputy Chief Consultant,
ORD, VHA	Post Deployment Health, OPH, VHA

MEMBERS (Cont.)	CONSULTANTS TO THE COMMITTEE
Victor Kalasinsky, Ph.D.	<b>Mr. John Spinelli</b>
Program Manager, Gulf War Veterans'	Special Advisor to the Secretary
Illnesses, ORD, VHA	Office of the Secretary
Victoria Cassano, M.D., MPH, MPhil,	<b>Mr. Kevin Secor</b>
FACPM	VSO Liaison
Disability & Medical Assessment, VHA	Office of the Secretary
<b>Ms. Connie Raab</b>	Mr. Carter Moore
Director, Public Health Communications	Congressional Relations Officer, Office of
OPH, VHA	Congressional and Legislative Affairs
<b>Mr. Gary Tallman</b>	<b>Mr. Michael Huff</b>
Senior Advisor, Office of Public and	Congressional Relations Officer, Office of
Intergovernmental Affairs	Congressional and Legislative Affairs
ADMINISTRATIVE SECRETARY	
<b>COL John Kent</b> Special Assistant to the Secretary Office of the Secretary	

## **APPENDIX G – GWVI Web sites and Links**

#### GWVI Web site

http://www.publichealth.va.gov/exposures/gulfwar

#### **Caring for Gulf War Veterans**

This study guide provides an overview of Gulf War experience, VA/DoD health programs available for Gulf War Veterans, and the common symptoms and diagnoses of these Veterans. Emphasis is placed on providing the most recent information from clinical and scientific studies of GWVI.

http://www.publichealth.va.gov/docs/vhi/caring-for-gulf-war-veterans-vhi.pdf

#### **EH Clinicians and Coordinators**

http://www.publichealth.va.gov/exposures/coordinators.asp

#### War Related Illness and Injury Study Center (WRIISC)

WRIISC is a national VA post-deployment health resource, focused on the post deployment health concerns of Veterans and their unique health care needs. The WRIISCs develop and provide post-deployment health expertise to Veterans and their health care providers through clinical programs, research, education, and risk communication.

http://www.warrelatedillness.va.gov/WARRELATEDILLNESS/index.asp

#### Gulf War Veterans Report: Pre 9/11

The purpose of this report is to provide comprehensive statistics on the utilization of VA benefits and health care services by Gulf War Era Veterans from the Pre-9/11 Period (August 2, 1990 to September 10, 2001).

(http://www.va.gov/vetdata/docs/SpecialReports/GW\_Pre911\_report.pdf)

#### Research Advisory Committee on Gulf War Veterans' Illnesses (RACGWVI)

The mission of the RACGWVI is to make recommendations to the Secretary on government research relating to the health consequences of military service in the Southwest Asia Theater of operations during the Persian Gulf War. http://www.va.gov/rac-gwvi/

#### **GWVI** Research and Development Strategic Plan

http://www.va.gov/RAC-

GWVI/docs/Minutes\_and\_Agendas/Presentations\_June2011\_AppendixB\_DRAFTGulfW arStrategicPlanJune21forRACGWVI.doc

#### Federally Sponsored Research on Gulf War Veterans' Illnesses

2009 Annual Report to Congress

http://www.research.va.gov/resources/pubs/pubs\_individual.cfm?Category=Gulf%20Wa r%20Reports.

(Note: The 2010 Annual Report to Congress has been submitted for VA concurrence and will be submitted to DoD for interagency concurrence for publication in 2011.)