

**Integration of Mental and Behavioral Health in
Federal Disaster Preparedness, Response, and
Recovery:
Assessment and Recommendations**

**A Report of the Disaster Mental Health Subcommittee
of the National Biodefense Science Board**

Adopted by the National Biodefense Science Board

September 22, 2010

Integration of Behavioral Health in Federal Disaster Preparedness, Response, and Recovery:
Assessment and Recommendations

Contents

I Introduction.....3

II Mental and Behavioral Health Concerns in Disasters and Emergencies.....4

III Assessment of Disaster Mental and Behavioral Health Integration.....6

Integration of Mental and Behavioral Health in Disaster and Emergency Policy.....7

Organization and Structural Integration.....13

IV Conclusions and Recommendations.....20

Appendix 1: National Biodefense Science Board Recommendations
Disaster Mental Health Subcommittee Report, Adopted November 18, 2008.....23

Appendix 2: National Biodefense Science Board
Disaster Mental Health Subcommittee Roster.....26

I. Introduction

Over the past decade, the Nation has experienced a range of notable disasters and emergencies, both natural and human-caused, including the September 11 terrorist attacks, the 2001 anthrax attacks, Hurricane Katrina in 2005, and the Deepwater Horizon oil spill in the Gulf of Mexico in 2010. In addition to causing physical injury and property destruction, such events have damaging effects on the mental and behavioral health of those who are directly involved. They also affect society on a larger scale, with worries about prolonged health impacts, job loss, and socioeconomic deterioration harming the psychological wellbeing of individuals and disrupting the functioning of entire communities.

Careful attention to mental and behavioral health concerns should be an integral part of preparedness, response, and recovery for disasters and emergencies that have consequences for the public's health. Dealing effectively with these issues can increase the effectiveness and efficiency of the immediate response to a disaster, reduce the long-term health burden and associated costs, and improve public confidence in the Federal Government's ability to deal with future emergencies. Yet in many current policies, procedures, and planning efforts, at all governmental levels, disaster mental health issues do not receive the attention and priority they deserve, are not effectively integrated within a comprehensive response, and are sometimes not represented at all.

In November 2008, the National Biodefense Science Board (NBSB) issued recommendations¹ developed by the Disaster Mental Health (DMH) Subcommittee to increase the priority and effectiveness of the mental and behavioral health elements of the Nation's preparedness, response, and recovery efforts for public health disasters and emergencies. Responding to the recommendations, the Assistant Secretary for Preparedness and Response (ASPR) in the Department of Health and Human Services (HHS) asked the NBSB to convene the DMH Subcommittee to assess the Department's progress in integrating mental and behavioral health issues into disaster and emergency preparedness, response, and recovery activities. This report describes the result of that assessment.

The DMH Subcommittee concludes that the most pressing and significant problem that hinders integration of disaster mental and behavioral health is the lack of appropriate policy at the highest Federal level. Compounding that problem is the lack of any clear statement as to where the authority to devise, formulate, and implement such policy should reside.

¹ "Disaster Mental Health Recommendations: Report of the Disaster Mental Health Subcommittee of the National Biodefense Science Board." Approved by the NBSB November 18, 2008. Accessed online 9/28/10 at <http://www.phe.gov/Preparedness/legal/boards/nbsb/Documents/nsbs-dmhreport-final.pdf>.

In conducting its assessment, the DMH Subcommittee held several teleconferences designed to encourage open dialogue with the ex officio members (or their designees) of the DMH Subcommittee representing various Federal Agencies. Ex officio members presented their perspectives on aspects of the policies, plans, and operating procedures that touch on disaster mental and behavioral health issues within their own Agencies. In addition to the Federal perspective, the DMH Subcommittee held a teleconference with representatives from the Multi-state Disaster Behavioral Health Consortium (MDBHC), a group comprised of mental and behavioral health leads from 32 member States. The information obtained through these discussions illustrated both the achievements of some Departments and Agencies and the difficulties they face, but did not provide the basis for a systematic analysis of each Department or Agency's standing on mental and behavioral health issues. For this reason, the DMH Subcommittee refrained from making detailed comments in this report on each entity, but used the information gathered to inform its overall assessment.

While the DMH Subcommittee was asked to conduct an assessment, its work naturally led to the identification of gaps in policy and organizational structures that complicate or even prevent the integration of mental and behavioral health in disaster and emergency preparedness, response, and recovery. This report therefore concludes with a number of strategic recommendations to the NBSB that the DMH Subcommittee believes will promote integration of mental and behavioral health principles into the Nation's disaster and emergency preparedness, response, and recovery activities.

II. Mental and Behavioral Health Concerns in Disasters and Emergencies

Mental and behavioral health, in the context of disasters and emergencies, includes a wide range of interrelated factors—psychological (emotional, cognitive, behavioral), physiological, and social—that influence people's ability to cope with and recover from extreme situations. Examples of pertinent issues include fear and anxiety resulting from safety concerns, the death of loved ones, separation from family members and uncertainty as to their fate, and loss of homes and possessions; noncompliance with government directives (such as evacuation orders or infection control measures) resulting from loss of confidence in authorities; breakdown in community social cohesion intensified by a disaster or emergency and likely persisting for a long time afterward; and, increased incidence of diagnosable disorders such as posttraumatic stress disorder (PTSD), adjustment difficulties, anxiety, and clinical depression. Loss of jobs and of control over one's life, coupled with persistent uncertainty about the prospects for recovery and rebuilding, can set the stage for a cascade of problems, including anger, shame, depression, substance abuse, domestic violence and even suicide. Other damaging long-term outcomes can include exacerbation of physical illness, difficulties in personal and family relationships, absenteeism from work and school, and other consequences harmful to individual quality of life and the functioning of society in general.

Interventions to address these and other issues need to be wide-ranging and grounded in scientific evidence. Furthermore, interventions need to vary depending on who is served and the goals of the intervention. For example, people with specialized needs, such as children, older adults, people with disabilities and chronic health conditions, and people with limited English language skills, need customized and tailored interventions. All actions need to be sensitive to the particular cultures and social groups whose needs they are intended to meet. For example, poor and disadvantaged communities have fewer resources and are likely to experience greater difficulty accessing external assistance; this may decrease confidence in officials and influence for the worse the public response to government directives.

Effective integration of mental and behavioral health into disaster and emergency preparedness, response, and recovery activities can help build psychological resilience at both the individual and community levels, so that both are better prepared to deal with disaster when it strikes. Integration has the potential to increase the effectiveness of disaster and emergency aid at the height of a crisis and to reduce the severity and extent of long-term health consequences of a disaster.

It is the collective position of content experts on the DMH Subcommittee, embracing a wide variety of perspectives, professions, and experiences, that effective integration of disaster mental health efforts will enhance disaster and emergency response. Specifically, integration of disaster mental and behavioral health efforts will help to:

- Promote compliance with public health directives
- Enhance individual and community resilience
- Augment prevention through education
- Facilitate rapid identification of people in need of immediate care
- Improve accuracy in diagnosis and treatment by health care providers
- Reduce the development of longer-term mental health problems
- Facilitate adjustment to loss and coping with adverse circumstances
- Further cost-effective and seamless care
- Identify potential barriers to treatment adherence and compliance
- Encourage mobilization and allocation of resources for at-risk and special needs groups
- Support culturally informed and culturally sensitive policies and services
- Foster confidence and trust in government
- Empower individuals to care for themselves more effectively
- Foster cohesion and collective efficacy in the affected community and speed its return to normal functioning

III. Assessment of Disaster Mental and Behavioral Health Integration

The National Health Security Strategy (NHSS)² focuses on two broad goals: building community resilience and strengthening and sustaining health and emergency response systems. The DMH Subcommittee strongly endorses these goals and emphasizes that accomplishing them requires *systematic and sustained integration of disaster mental and behavioral health issues throughout the disaster and emergency preparedness, response, and recovery process.*

The DMH Subcommittee's overall assessment of the integration of disaster mental and behavioral health to date is that while the Federal Government has made progress toward this goal in certain areas, far more needs to be done. Attention to mental and behavioral health issues needs to be built into preparedness, response, and recovery plans and procedures at the outset, so that responders do not have to search for or independently devise appropriate responses to emotional and behavioral health issues, as they often do now. Moreover, the lack of integration means that responders often do not know what mental and behavioral health resources and interventions are available, useful, and effective, and do not have training in principles of disaster behavioral health that can inform their key functions of restoring physical safety, order, and infrastructure in a manner that sustains and bolsters resilience.

Integration of mental and behavioral health issues into disaster and emergency preparedness, response, and recovery needs to address both policy formulation and practical organization, from Federal Agencies to State and local responders. Integration in the broadest sense means not simply defining appropriate policy, but also ensuring, through the use of meaningful metrics and accountability, that the policy achieves the desired goals.

Guided by this overall conception of the problem of integration, the DMH Subcommittee found it useful to focus the analysis on two issues. The first deals with policy matters and the second with the structural and organization elements that are needed to transform policy into effective action. In each area, the DMH Subcommittee identified specific changes that will help achieve integration of disaster mental and behavioral health across Federal preparedness, response, and recovery efforts. In turn, the Nation's ability to respond effectively to, and recover from, natural and human-caused disasters and emergencies will be strengthened.

² HHS, Office of the Assistant Secretary for Preparedness and Response, "National Health Security Strategy of the United States of America." December, 2009. Accessed online 9/28/10 at <http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Documents/nhss-final.pdf>.

Integration of Mental and Behavioral Health in Disaster and Emergency Policy

The lack of formalized integration of mental and behavioral health issues into disaster and emergency planning at the Federal level has meant that these concerns have not been addressed systematically or consistently. Much of the time, mental and behavioral health efforts have been included and perpetuated largely as a result of the expertise, energy, and commitment of a few passionate and strategically placed individuals. As individuals and organizational structures change, these efforts often have not been sustained and true integration has not occurred. Inevitably, actions and interventions have been less comprehensive and effective than they might have been because of inconsistency and lack of coordination among various Federal Agencies and private entities. Problems include duplicative—and sometimes contradictory—efforts, lack of information-sharing during an event, and failure to preserve lessons from one disaster or emergency that could be usefully applied to others.

For example, the HHS response to the 2009-2010 H1N1 pandemic demonstrated the potential benefits of incorporating disaster mental and behavioral health concerns into the response efforts. Mental and behavioral health considerations influencing public response to this widely-publicized pandemic included concerns about the severity of the virus; worries about the availability of vaccines, medicines, and community services including health care; conflicting ‘official’ information on appropriate protective measures leading to widespread confusion, loss of confidence, and noncompliance; and, concern over potential workforce and child care issues resulting from wide-spread infection and disease-related absenteeism. Cognizant of these concerns, ASPR asked NBSB for assistance in addressing public health needs. NBSB then asked the DMH Subcommittee to recommend appropriate actions for NBSB’s consideration. The NBSB recommendations³ included establishing ‘reach-back’ capacity to obtain help from a panel of disaster mental and behavioral health experts convened for this purpose; facilitating collaboration between public health and mental health professionals and groups; developing communications strategies for messaging to the public directly and to help responders deal with public concerns; and, paying special attention to vulnerable and at-risk groups. The recommendations underscored the importance of integrating mental and behavioral health into other health-related activities, but the lack of a formal policy on integration resulted in a delay that diminished their usefulness.

Even when motivated individuals have taken steps to integrate mental and behavioral health into the response to a particular incident, those people have limited ability to direct or influence responses that involve people or Agencies beyond their immediate purview. While the diversity of disaster and emergency types and the wide range of responses that are appropriate for the affected populations and communities may make the task of formulating policy at a high level

³ National Biodefense Science Board, “Actions to consider taking to prevent and mitigate adverse behavioral health outcomes during the H1N1 public health emergency.” November 13, 2009. Accessed online 9/28/10 at <http://www.phe.gov/Preparedness/legal/boards/nbsb/Documents/nbsb111909.pdf>.

more difficult, these issues can be anticipated and managed far more efficaciously if they are approached in the context of well developed, comprehensive, and operationalized HHS policy.

The Federal response to the Deepwater Horizon oil spill has demonstrated leadership commitment at high levels within the government regarding the emotional and behavioral health aspects of disaster response. During this extended crisis, senior government officials, including the Secretary of HHS, the ASPR, the Administrator of the Substance Abuse and Mental Services Administration (SAMHSA), and the Surgeon General, have visited the region repeatedly and have made particular efforts to meet with community groups. Discussions at these meetings have specifically addressed emotional and behavioral health issues such as anxiety over the anticipated loss of livelihood for years to come, long-term environmental hazards, and breakdown of long-established communities. The engagement of these senior officials helped champion disaster mental and behavioral health concerns in a way that gained significant public and media attention. In particular, early on and throughout the response to this disaster, the ASPR and the Administrator of SAMHSA promoted the critical role that mental and behavioral health plays in protecting the health and well-being of impacted individuals and in fostering community resilience and recovery. However, the lack of formal plans and procedures at the Federal level meant that despite the engagement of these senior leaders, it will be challenging to coordinate mental and behavioral health activities among the many Agencies and other groups involved in the response to the oil spill. Attention to mental and behavioral health needs to be a well-integrated part of preparedness efforts, so that it is a key component of the initial response rather than being raised primarily during the recovery period. In addition to clear evidence of increased attention to and integration of disaster mental and behavioral health activities within the Federal Government, the DMH Subcommittee also learned that Departments, Agencies, and stakeholders involved in such efforts were aware of an urgent need for further development and improvement in the integration of disaster mental and behavioral health.

Both the NHSS and the draft National Disaster Recovery Framework (NDRF)⁴ make repeated and welcome reference to the importance of mental and behavioral health concerns, but neither document addresses in detail policy formulation regarding the integration of mental and behavioral health issues. Moreover, there are no specific mandates for integrating these issues across Departments. In the absence of a government-wide mandate for integration, the DMH Subcommittee believes that the best immediate prospect is to pursue integration within HHS, where the Secretary and the ASPR have the authority to develop and implement the necessary changes. Such an effort, the DMH Subcommittee hopes, could serve as a model and an inspiration for further policy development.

⁴ Federal Emergency Management Agency, “National Disaster Recovery Framework – Draft”. February 5, 2010. Accessed online 9/28/10 at http://www.fema.gov/pdf/recoveryframework/omb_ndrf.pdf.

As examples of gaps illustrating the lack of disaster mental and behavioral health integration at the level of Federal policy, the DMH Subcommittee offers these observations:

- There is no Federal policy directed toward integrating disaster mental and behavioral health into efforts to build individual and community resilience—even though resilience in both domains is greatly affected by emotional and psychosocial factors and resilience is a central theme in both the NDRF and the NHSS. Increasing resilience, with efforts guided by sound policy, should make the Federal response to disasters and emergencies more effective and efficient, and it should reduce long-term emotional and behavioral consequences.
- The DMH Subcommittee could find no policy concerning the Federal Government’s role with respect to the most significant long-term emotional and behavioral consequences of a disaster or emergency. For example, there seems to be no policy addressing the Federal role in supporting or providing treatment for diagnosable mental disorders such as PTSD, clinical depression, and phobias. There are varying views on what the Federal role should be in this area. But without a process to publicly debate and discuss the issue and reach a conclusion regarding the Federal role, stakeholders both within and outside the Federal Government often perceive operational practice as arbitrary, and become confused and frustrated. Clear policy guidance also is needed on whether the Federal Government should take the lead in addressing long-term as well as immediate mental and behavioral health consequences of disasters and emergencies. Depending on that policy, determinations would be needed regarding how that policy should be delegated and coordinated among Agencies.
- Through State stakeholder reports, the DMH Subcommittee is aware of a number of concerns about the limitations of the Crisis Counseling Assistance and Training Program (CCP), which is a program of the Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) authorized under the Stafford Act with administration and technical support from SAMHSA through an interagency agreement. In particular, Federal grant conditions relating to the CCP have become more complex and onerous in recent years, to the point that some States have opted out of applying for funds to support crisis counseling programs for disaster-affected citizens for some incidents. Surely this is an unintended development that merits attention by both DHS/FEMA and HHS.
- The MDBHC reported to the DMH Subcommittee that States encounter a lack of coordination across Federal Departments, including HHS, DHS, and the Department of Housing and Urban Development (HUD), and among Agencies such as FEMA, SAMHSA, the Centers for Disease Control and Prevention (CDC), the Administration for Children and Families (ACF), and ASPR. States do not have a single point of contact with the Federal Government but must negotiate contacts with many different Agencies.

Lack of integration and communication at the Federal level means that different Agencies may have programs that overlap or even duplicate each other, leading to inconsistent guidance to States and localities. MDBHC also reported confusion in guidance to States and localities that arises because Federal Agencies do not have a clear understanding of State and local capabilities in disaster mental and behavioral health response.

Inconsistency also can occur within individual Federal Agencies, depending on which project officers are assigned to different States. The information provided to the DMH Subcommittee by the MDBHC was powerful and compelling. While hearing from a wide variety of Federal Departments and Agencies was invaluable, hearing from those who are on the receiving end of Federal disaster preparedness, response, and recovery mental and behavioral health efforts was both profound and troubling.

- Federal disaster and emergency preparedness, response, and recovery activities treat mental and behavioral health as an element of the general public health response, but many States administer mental health and public health programs separately. This leads to mental and behavioral health being excluded from many Federal planning programs and exercises. It also means that disaster mental and behavioral health activities in States do not receive direct Federal support, as general public health activities do. The result is that Federal programs that award grants to State public health programs on the assumption that disaster mental and behavioral health will be included do not always have the desired effect. This is an important example of how well-intentioned Federal efforts, if they are not properly integrated, can create rather than resolve challenges at other levels of government, and can even exacerbate difficulties with integration at the level of service delivery. Resolving these difficulties requires action both by States—to give disaster mental and behavioral health its appropriate priority—and by Federal Agencies—to recognize the differences from one State to another in the way disaster mental and behavioral health activities are supported.
- An overarching and pressing need in almost all aspects of disaster mental and behavioral health response is clear communication with the public, since much of the most important work in a disaster or emergency will involve disseminating information, directives, and other messages to the entire affected population. The mental and behavioral health response, unlike much other disaster recovery activity, needs to include attention to normal subclinical distress related to disaster exposure. Even people who may not be profoundly affected may suffer distress and long-term personal consequences that interfere with their roles in the family, community, and workplace or school. In past events where the disaster mental and behavioral health response has been fragmented among many entities, public communication and messaging also has been fragmented and inconsistent, resulting in confusion and anger that exacerbates emotional and behavioral health concerns. Integration of disaster mental and behavioral health policy at the Federal level needs to include attention to communication, with the goal of enabling

responders in many Departments and Agencies to confer efficiently among themselves and to deliver consistent and useful messages to the general public⁵. This will require integration of training and education programs for responders, deriving from a coherent policy.

- Better preparedness, response, and recovery require a much stronger evidence base than currently exists in the disaster mental and behavioral health field in general and on the effectiveness of disaster mental and behavioral health interventions in particular. But the current knowledge base regarding disaster mental health for preparedness, response, and recovery contains important accomplishments as well as serious shortcomings. Accomplishments include an incomplete but useful understanding of the continuum of acute and chronic needs that can be anticipated after disasters and emergencies; limited but practical knowledge about groups that are at highest risk for severe and persistent mental health problems; known risk and protective factors that serve as targets for promoting recovery in both individuals and the community levels; a robust armamentarium of evidence-based interventions for common mental and behavioral disorders; and, evidence on the effectiveness of diverse modalities for delivering services. Shortcomings include the lack of research to establish ready-to-use models and clear guidance for planning, training, and implementation approaches tailored to the character of specific disasters; limited availability of human, material, and other resources; and, the fragile status of underlying health and mental health infrastructure.
- Although the literature on disaster mental and behavioral health is fraught with scientific limitations and somewhat redundant reports, the community of investigators interested in such issues has grown in recent years to encompass multiple disciplines and interdisciplinary teams and approaches. As research methods, tools, and technologies have improved, and as awareness has grown that rational decision-making about the deployment of limited resources must be based on evidence, it is becoming increasingly clear that well-conceived studies involving representative samples of affected communities and populations are both necessary and possible, and that such efforts will set the stage for systematically examining the impact of interventions on individuals and populations. Pressing issues include research on methods to enhance individual and collective resilience and to promote coping and adjustment to loss and adversity; on the extent to which preparedness and resilience can minimize post-disaster problems and thereby make disaster response more cost-effective; on the effectiveness of early interventions in preventing the development of emotional problems; on the nature and treatment of the most urgent long-term mental and behavioral health consequences of disasters and emergencies; on the role of culture, race, and ethnicity in influencing individual and collective response and recovery; and on the most effective ways to

⁵ Disaster Mental Health Subcommittee Report, op. cit.

persuade citizens to respond appropriately to evacuation orders and other government directives. Program evaluation studies that examine the effectiveness of existing crisis counseling approaches are especially important for guiding the design and implementation of those services.

- No single research agency of the Federal Government can adequately address the broad research agenda for disaster mental and behavioral health. Within HHS, Agencies with relevant research capabilities include the National Institutes of Health (NIH), CDC, the Agency for Healthcare Research and Quality (AHRQ), ACF, and others. Other Federal Departments with relevant research interests include the Veterans Administration (VA), the Departments of Defense (DoD), Education (DoED), and Justice (DoJ), and DHS. Given the limited mechanisms and policies that exist in support of a comprehensive and coordinated research agenda across so many Departments and Agencies, the DMH Subcommittee believes there should be a forum to encourage the development, shared ownership, and coordination of this agenda. To lay the groundwork for integration, each Agency will need to identify areas of interest and priority in mental and behavioral health research related to public health disasters and emergencies.

From interviews and discussions with representatives of many Federal Departments and Agencies, the DMH Subcommittee found widespread recognition of the need to include mental and behavioral health in disaster and emergency preparedness, response, and recovery efforts. Within HHS, ASPR has made progress on integration and has provided invaluable assistance to the DMH Subcommittee. For example, ASPR has recently approved a process to create a Disaster Behavioral Health concept of operations (CONOPS) and has actively promoted inclusion of behavioral health issues in the NHSS and the draft NHSS Biennial Implementation Plan⁶. Elsewhere, efforts to integrate disaster mental and behavioral health seem to have come more from constellations of individual initiative than from any consistent policy. As a result, efforts at integration are not supported by specific mission assignment, budget, and staffing allocations, making them difficult to sustain. As long as this situation persists, integration will remain a fragile construct.

One opportunity to improve the integration of disaster mental and behavioral health and to address many of the policy gaps outlined above is the pending reauthorization of the Pandemic and All-Hazards Preparedness Act (PAHPA). Insertion of content that argues forcefully for the integration of mental and behavioral health into disaster and emergency preparedness, response, and recovery would create the necessary authority for the Federal Government to develop a

⁶ HHS, Office of the Assistant Secretary for Preparedness and Response, "Implementation Plan for the National Health Security Strategy of the United States of America – Draft." July 19, 2010. Accessed online 9/28/10 at <http://www.phe.gov/Preparedness/planning/authority/nhss/comments/Documents/nhssbip-draft-100719.pdf>

comprehensive and inclusive policy with appropriate attention to emotional and behavioral health. This is an opportunity not to be missed.

Within HHS, integration is at a critical point. The appointment of the DMH Subcommittee and the response to its work so far demonstrate a clear and urgent interest in the issue. The DMH Subcommittee, or a comparable body or process, therefore should be institutionalized as an ongoing resource to provide disaster mental and behavioral health technical expertise; otherwise, the limited gains made to date are likely to be reversed. What remains is to transform recommendations into action. This can only happen if the Secretary of HHS takes leadership in integrating mental and behavioral health into disaster and emergency policy—chiefly within HHS, but also as a way of promoting attention to the issue throughout the Federal Government.

Organizational and Structural Integration

Policy is only as good as its implementation. Formulation of Federal policy that explicitly integrates mental and behavioral health into disaster and emergency preparedness, response, and recovery is essential. Putting that policy into effective practice requires a concerted and purposeful effort from all relevant Federal Departments and Agencies, extending to State, local, and tribal entities; professional organizations; and ultimately including communities, civic groups, and the general public as a whole. The success of any policy initiative is ultimately measured by the positive changes it generates in the public's health and delivery of services to citizens and communities. Thus, the DMH Subcommittee strongly believes that organizational and structural issues regarding integration of mental and behavioral health into disaster and emergency preparedness, response, and recovery needs to receive attention as a matter of policy.

Through its interviews and discussions with a broad range of entities involved in disaster response, the DMH Subcommittee found widespread evidence of interest in integrating mental and behavioral health more fully into preparedness, response, and recovery activities, but also numerous practical and logistical obstacles to that integration. A fundamental obstacle is that personnel in positions of authority in State, local, and tribal entities are typically not part of a larger and comprehensive effort to integrate disaster mental and behavioral health and have only limited power to take initiative in their particular sphere. Remediating this problem requires agreement that integration of disaster mental and behavioral health is an urgent priority, followed by a willingness to address a host of specific and practical issues about disaster mental and behavioral health services, research, training, and funding.

In response to concerns expressed in several Agency presentations, the DMH Subcommittee emphasizes that integration does not mean consolidation. That is, the DMH Subcommittee specifically does *not* recommend that provision of the great variety of essential disaster mental and behavioral health activities be consolidated into any single Department or Agency to the extent that attention to these issues are minimized within other Departments or Agencies or

marginalized throughout the Federal system. Neither does the DMH Subcommittee recommend that existing and effective Agency programs specifically dedicated to disaster mental and behavioral health be eliminated. While the DMH Subcommittee is charged with addressing issues within the Federal structure, this position may have merit at other levels of government as well. Integration, in contrast to consolidation, means that many different Agencies and entities contribute their invaluable and sometimes unique expertise and services, but that they act as part of a coherently organized structure, with clear lines of responsibility, accountability, and communication.

The DMH Subcommittee acknowledges that integration of efforts within the Federal Government is an extraordinarily difficult and complex task. In addition to issues resulting from structural concerns, organizational culture often mitigates against meaningful and sustained integration of effort. Structural concerns include processes that foster lack of integrated budgeting and planning and related program responsibilities residing in different Departments, Agencies, and Congressional oversight committees. Challenges in the realm of organizational culture include historical development of separate constituencies both within and outside government; changing and politically-appointed leadership; and administrative constraints that make meaningful joint planning, funding, and administration difficult. History provides many examples of the adverse impact of lack of coordination and integration and far fewer positive examples of successful integration. These constraints against meaningful integration are noted to acknowledge the difficulties that Federal leaders face and to serve as a reminder that, if integration of efforts is to have any chance of success, leadership must be vigilant and assertive in promoting it. Without this vigilance, the inertial forces of long-standing structure and organizational culture will conspire against positive integrative efforts.

As noted above, the DMH Subcommittee's review did not allow for an exhaustive listing of problems and possible solutions in specific Departments and Agencies. However, it did allow the identification of clear gaps in organizational aspects of the effort to integrate mental and behavioral health into disaster and emergency preparedness, response, and recovery efforts. The gaps the DMH Subcommittee observed are presented here.

- The Federal Government has no formal or established mechanism by which it can draw on a wide variety of non-governmental disaster mental and behavioral health resources during and after a crisis, but instead tends to reach out to whatever Agency or entity is most readily accessible and available or has been used in the past for a similar purpose. In part this is due to a lack of a systematized information gathering and maintenance strategy and system: no directory or dataset exists that could guide Department or Agency officials to the appropriate resource for a particular problem. There have been some admirable but essentially ad hoc efforts to provide more comprehensive access to services. For example, during the H1N1 pandemic, CDC established a national help desk to deal specifically with concerns about children through “one-stop shopping” for all inquiries by consolidating various sources of information into a comprehensive list of

resources from numerous Agencies, thereby helping the general public navigate a complex and unfamiliar system. True integration would mean having comprehensive and easily adaptable resources ready and waiting, both for responder and public use, to be called upon when needed. The DMH Subcommittee notes that the National Response Framework Emergency Support Function (ESF) 8⁷ designates mental health as an integral part of health and medical services response. This is an ideal that should—and must—be made a reality. In summary, the critical issues become: Where within the Federal structure does responsibility and authority rest to access specialized disaster mental and behavioral health content expertise? Once that has been established, how does cataloging, maintaining, and utilizing that expertise occur?

- Through their own initiative, some Agencies are collaborating on useful integrative work. For example, ASPR, working with SAMHSA, provided mental and behavioral health workforce protection services to HHS responders in the aftermath of the Haiti earthquake, demonstrating a significant improvement in dealing with the emotional and behavioral health needs of responders themselves. Steps taken in Haiti included psychological readiness preparation for responders before they were deployed and assistance with stress management, addiction risks, and other emotional and behavioral health concerns during deployment. Mental health professionals were embedded in National Disaster Medical System (NDMS) teams in Haiti and a mental health officer served on the Incident Response Coordination Team. In addition, responders received systematic post-deployment education that included advice on expected responses and danger signs indicative of emotional and behavioral health problems and on how to access appropriate follow-up resources should they be needed. Overall, this effort to include mental and behavioral health concerns in the response broke new ground and can serve as a model for the future. Another example is the CDC's work with a number of other Departments and Agencies on specific projects attempting to integrate disaster mental and behavioral health into efforts to build community resilience. The DMH Subcommittee learned that these activities arose not from any formal policy initiative or procedural protocol, but because the importance of disaster mental and behavioral health has gained greater internal recognition in recent years, and because various experts and committed individuals, making use of collegial relationships, have perceived unfilled needs and sought to fill them. Sustainable integration would mean that there would be a clear mandate and formal authority for undertaking such collaborative work and that specific funding for it would be designated.
- Throughout the Federal Government, there are a limited number of officials with specific responsibility for championing the integration of disaster mental and behavioral health.

⁷ FEMA, Emergency Support Function #8 – Public Health and Medical Services Annex. Accessed online 9/28/10 at <http://www.fema.gov/pdf/emergency/nrf/nrf-esf-08.pdf>

Implementation of an integration policy requires not only leadership from the top but the time and effort of people at all levels in all relevant Departments and Agencies. Integration requires policy-based expectations and direction, and clear lines of authority and accountability, meaning that Department and Agency leaders need to create personnel and resource structures that currently do not exist.

- Disaster mental and behavioral health components are beginning to be written into plans, but putting these plans into action requires the development of an overall CONOPS. The NBSB and the National Commission on Children and Disaster have urged the development of suitable CONOPS for disaster mental and behavioral health at the Federal level, but no such CONOPS yet exists. Creating it would be an indication that integration is occurring, but the DMH Subcommittee emphasizes that it is not sufficient for a CONOPS to exist. It also needs to be operationalized, that is, turned into standard operating procedures and actions that integrate available and necessary human and fiscal resources.
- Starting in 2002, with the help of modest SAMHSA grants (\$100,000 per year for two years), 35 States produced their own State Disaster Behavioral Health Plans. Funding to follow up on this initiative has not been available, however, so that the expertise acquired and personnel put in the place by these State efforts often have not been maintained. For example, SAMHSA found funding from existing and scarce sources to meet a significant disaster mental health need in the States. That impressive effort then was unable to be sustained even in the face of increasing appreciation for the need for disaster mental and behavioral health resource development and integration in States. The DMH Subcommittee, along with the MDBHC, found this inconsistent pattern of support to be demoralizing. Integration requires consistent and sustained funding of such efforts, to allow the necessary infrastructure to be created and maintained.
- In addition, and partly as a result of the SAMHSA initiative, all States now have an official in the role of State Disaster Mental (or Behavioral) Health Coordinator, but funding and organizational structures to integrate this role into each State's public health activities as a whole are lacking. Funding to States from the CCP or the SAMHSA Emergency Response Grant is available to support only specified disaster services and only in response to a Federally-declared disaster. These funds are therefore not available to develop and sustain preparedness and organizational integration. Some States have been able to draw on HHS preparedness funding from CDC and ASPR to support disaster mental and behavioral health planning and activities, but these grants do not have specific deliverables or set-asides for disaster mental health. A major obstacle to disaster mental and behavioral health integration, therefore, is the lack of reliable or dedicated Federal support for the creation and maintenance of the necessary dedicated staff and infrastructure.
- While recognizing a growing number of training activities related to disaster mental health, the DMH Subcommittee is not aware of a locus of responsibility that identifies

appropriate content, audiences, inventories of existing educational materials and resources, educational objectives, and quality assurance. Once established, this evidence-based and evidence-informed mental and behavioral health training function should be integrated into other disaster and emergency preparedness, response, and recovery activities. Those who could benefit from specialized and tailored training include, but are not limited to, designated disaster mental and behavioral health personnel; health and medical professionals; first responders; professionals within communities (such as teachers) who regularly interact with and could support at-risk populations; and organizational, political, and community leaders. Content and format should vary to include such topics as appropriate interventions, communication issues, role of leadership, nature and trajectory of mental and behavioral health issues, cultural competence, and individual and collective resilience, to name a few areas. For the most part, existing training courses fail to include opportunities to practice concrete intervention skills and to provide ongoing follow-up supervision or consultation that research has shown is required if training is to be effective in promoting the development, implementation, and maintenance of new skills. Integrating mental and behavioral health into disaster and emergency response will mean that these issues are understood and recognized by all leaders, responders and other stakeholders in an affected community, and not left as problems for a small number of designated disaster mental health professionals to identify and address. In addition, research is needed on the effectiveness of various training approaches, such as *train the trainer* and *just in time*, if response effectiveness is to be improved.

- Examining problems encountered by State, local, and tribal responders, the DMH Subcommittee identified several issues that raise doubts about the extent to which disaster mental and behavioral health expertise on the ground at a disaster or emergency site can be effectively and quickly expanded, augmented, assigned, and deployed given the current level of disaster mental health integration.
 - Under usual circumstances, mental and behavioral health personnel employed in the public mental health system typically focus on people with severe and persistent emotional or behavioral health problems, not on communities as a whole, and certainly not on the majority of the population with no pre-existing mental or behavioral health problems. Preparedness training, an essential element to disaster mental and behavioral health integration, therefore needs to provide these personnel with the additional expertise they need to respond to disasters and emergencies, over and above their routine missions. This is a significant challenge at both the provider and the organizational level. It involves myriad issues including the development and maintenance of skills, modifications in roles, services to existing clientele, funding, repositioning and relocation of staff, and managing existing and changing public as well as political expectations. Non-mental health professionals

(such as teachers) who are in a position to provide support and assistance to the majority of the population with no pre-existing mental or behavioral health problems should also receive training on how to provide psychological first aid, basic bereavement support, and brief supportive interventions, as well as to identify those in need of referral for additional mental health services.

- In many States and localities, mental and behavioral health programs are already resource thin. This is doubly detrimental to planning for disaster and emergency preparedness, response, and recovery. First, there is concern about the extent to which available personnel, even with the proper training, can respond effectively to a disaster. Second, State and local mental and behavioral health authorities often find it difficult to release personnel for disaster training and exercises, because they do not easily have the means of covering work absences.
- Resources from non-public sources such as private practice settings, academia, and other types of organizations are a critical part of the preparedness and response picture. While essential disaster mental and behavioral health assets, these people experience many of the challenges noted above. In addition, they may be available for only a limited time before having to return to their pre-event roles.
- The difficulties faced by State mental and health authorities are often particularly acute in inner city, rural, and frontier areas, and these areas may well suffer the greatest emotional and behavioral consequences because the level of community services available is already low. Many people live in high stress, dangerous, and underserved areas. Integration plans for disaster mental and behavioral health therefore need to include attention to understanding how different communities and cultures are affected by a disaster and how to prioritize the delivery of services in the context of pre-event conditions.

On the question of organization and structural issues standing in the way of integration of mental and behavioral health into disaster and emergency preparedness, response, and recovery, the DMH Subcommittee identified two broad themes that raise concern. First, the Federal Government needs to lead by example by integrating within Departments and Agencies its own disaster mental and behavioral health plans, activities, and procedures. The DMH Subcommittee recognizes that the Secretary has the authority to directly enhance integration only within HHS and urges that these efforts be promoted beyond HHS to provide a model for how disaster mental and behavioral health integration can be achieved.

Second, a variety of problems result from the differences in how mental and behavioral health programs, including disaster mental and behavioral health programs, are administered within States and localities. This becomes particularly acute when these programs are organized

separately from public health programs in general. Resolving these issues requires States and localities to pursue their own unique integration plans and strategies, but also requires Federal Departments and Agencies to be flexible and sensitive in working with existing State and local structures. Federal policies and practices intended to facilitate or promote disaster mental and behavioral health integration within the States and localities need to be devised and conducted with a better understanding of how States and localities actually operate and of the unique challenges and opportunities that are inherent in the various structures.

Lack of funding significantly inhibits progress in all areas of disaster mental health integration and at all levels of government. Historically and currently, an indefensibly small proportion of Federal preparedness, response, and recovery resources that flow to the States is specifically directed to the development and integration of disaster mental and behavioral health capabilities. It is particularly difficult to build community resilience and formulate preparedness plans when much funding comes to States and local communities only in the wake of a Federally-declared disaster.

IV. Conclusions and Recommendations

The Assistant Secretary for Preparedness and Response (ASPR) tasked the National Biodefense Science Board (NBSB) to convene the Disaster Mental Health (DMH) Subcommittee to assess the progress that the U.S. Department of Health and Human Services (HHS) has made in its efforts to better integrate mental and behavioral health into disaster and emergency preparedness, response, and recovery activities. In compiling this report, the DMH Subcommittee was pleased to find a number of examples that illustrate awareness of the need for integration and progress toward it. Much of this work, however, is proceeding in an ad hoc way, largely a result of commitment and effort by experts and motivated individuals rather than as the consequence of formal policy.

In its earlier report to the NBSB⁸, the DMH Subcommittee made eight broad recommendations, each accompanied by specific action steps, for mitigating the mental and behavioral health consequences of disasters and emergencies (Table 1). Full implementation of these recommendations, which remain largely unfulfilled, would be a necessary precondition for integration and would provide a strong foundation for the establishment of policy, structure, accountability and funding for success.

Table 1. Summary of Disaster Mental Health Recommendations approved by the National Biodefense Science Board, November 19, 2008. Submitted to the Secretary of Health and Human Services.

- 1 Integrate mental and behavioral health into all public health and medical preparedness and response activities.
- 2 Enhance the research agenda for disaster mental and behavioral health.
- 3 Enhance assessment and surveillance of mental and behavioral health needs during emergencies.
- 4 Enhance disaster mental and behavioral health training for professionals and paraprofessionals.
- 5 Promote the population's psychological resilience.
- 6 Ensure that the needs of at-risk individuals and issues of cultural responsiveness are addressed in all efforts of the NBSB.
- 7 Develop a disaster mental and behavioral health communication strategy.
- 8 Develop an internet-based communication toolkit.

⁸ Disaster Mental Health Subcommittee Report, op. cit.

In addition to its disaster mental and behavioral health recommendations, the DMH Subcommittee notes that the National Health Security Strategy (NHSS) promotes inclusion of mental and behavioral health in disaster and emergency preparedness, response, and recovery activities, with an emphasis on building community and individual resilience and strengthening health and emergency response systems. The DMH Subcommittee supports and endorses these NHSS goals. Progress toward these goals also requires a sustained and high-level commitment to the integration of disaster mental and behavioral health. The DMH Subcommittee therefore makes the following strategic recommendations to the NBSB for consideration and approval and transmittance to the Secretary of HHS. It is the determination of the DMH Subcommittee that, when accepted and implemented, these recommendations will result in significant progress toward integration of disaster mental and behavioral health efforts.

1. The Secretary should task senior HHS leaders with implementing the eight NBSB recommendations outlined in the DMH Subcommittee report⁹, approved by the NBSB on November 18, 2008. The 2008 recommendations are summarized in Table 1 and enumerated in their entirety in Appendix I of this report. These recommendations and their associated action steps could serve as an important foundation for the establishment of policy, structures, accountability and funding and are a critical precondition for successful integration efforts.
2. The Secretary, in coordination with other Federal Agencies, should develop a policy regarding disaster mental and behavioral health that encompasses the strengths and activities of all Federal Agencies, and also develop a strategy to implement that policy. Specifically, the policy should identify appropriate Federal roles regarding mental and behavioral health aspects of disaster and emergency preparedness, response, and recovery. The policy should be developed in consultation with other Federal Agencies; State, local, and tribal agencies; non-governmental organizations; civic and community groups such as faith-based organizations; and appropriate subject matter experts. The policy should include:
 - A clearly articulated statement of the nature and scope of the Federal Government's roles and responsibilities with respect to disaster mental and behavioral health in preparedness for, response to, and recovery from disasters and emergencies;
 - Identification and delegation of responsibility and authority to designated Federal Agencies and other entities to prepare for a full range of psychosocial consequences resulting from disasters and emergencies and to provide for assessment and adequate and appropriate interventions and treatments for emotional and behavioral health disorders resulting from disasters;

⁹ Disaster Mental Health Subcommittee Report, op. cit.

- Development of mechanisms to integrate disaster mental and behavioral health capabilities and responsibilities across Federal Departments and Agencies.
3. The Secretary should identify and empower an office or Agency to serve as the operational leader for disaster mental and behavioral health integration within HHS, with authority to:
 - Synchronize and oversee efforts of HHS offices and Agencies, defining goals and measuring progress toward achieving them;
 - Develop a high-level concept of operations for including mental and behavioral health in disaster and emergency preparedness, response, and recovery efforts across the Federal enterprise;
 - Bring together personnel from all sections of HHS, as was done in the case of the H1N1 pandemic, to marshal existing expertise, identify and obtain additional needed expertise, integrate strategy, share emerging data, and facilitate a credible and unified HHS response.
 4. The Secretary should task senior HHS leaders, including but not limited to the directors of NIH, ASPR, CDC, AHRQ, and SAMHSA, with developing a set of coordinated and prioritized research goals and necessary support for disaster mental and behavioral health. This research agenda should be coordinated with other relevant Federal entities, including DoD, VA, DHS, and DoED.
 5. The Secretary should create and maintain a structure by which disaster mental and behavioral health subject matter experts will regularly assess and report to the Secretary on progress toward integration as well as on other disaster mental and behavioral health issues. Continuation of the DMH Subcommittee would be one logical mechanism to accomplish this essential goal.

The DMH Subcommittee concludes that the most pressing and significant problem that hinders integration of disaster mental and behavioral health is the lack of appropriate policy at the highest Federal level. Compounding that problem is the lack of any clear statement as to where the authority to devise, formulate, and implement such policy should reside. The DMH Subcommittee emphasizes that while the HHS Secretary can directly foster an integration policy and strategy for disaster mental and behavioral health integration only within HHS, the ability of HHS to act as a guide and a model for the actions of other Federal Departments and Agencies, as well as other levels of government, should not be underestimated. Committed individuals within HHS and elsewhere have already raised the prominence of mental and behavioral health in disaster and emergency preparedness, response, and recovery activities. So too the Secretary of HHS can bring the urgent issue of high quality integrated disaster mental health and behavioral health leadership, policy, and structure to greater attention within the Federal Government and the country.

Appendix 1: DMH Subcommittee Recommendations¹⁰ Endorsed by the NBSB, November 18, 2008

RECOMMENDATION 1 (INTERVENTION)

Integrate mental and behavioral health into all public health and medical preparedness and response activities.

- (1a) *At the Federal level, coordinate mental and behavioral health service efforts through a unified concept of operations (CONOPS) that addresses pre-, intra-, and post-event phases of disaster and that includes:*
- *Near real-time reach-back capacity to allow for mental and behavioral health expert input and consultation;*
 - *Representation of mental and behavioral health functions, including consultative and clinical roles, within operational frameworks across local, State, and national levels aligned with the National Incident Management System; and*
 - *Standard mental and behavioral health triage of at-risk individuals and populations linked with needs-assessment activities and surveillance of emerging health effects and behavioral risk factors.*
- (1b) *At the national level, facilitate State-based disaster mental and behavioral health planning and operations through the following:*
- *Include language on mental health, substance abuse, and behavioral health in all appropriate legislation, regulations, and grants (e.g., the Pandemic and All-Hazards Preparedness Act).*
 - *Integrate disaster mental and behavioral health planning and exercising into performance benchmarks of new or existing Federally-funded emergency management programs or grants.*

RECOMMENDATION 2 (INTERVENTION)

Enhance the research agenda for disaster mental and behavioral health.

Convene a working group of the Disaster Mental Health Subcommittee to review the research portfolios of Federal research funders across the U.S. government (including the NIH, AHRQ, and CDC within HHS, and other relevant Federal Departments and agencies) to identify gaps in knowledge, areas of recent progress, and priorities for research in disaster mental and behavioral health program evaluation, early intervention, treatment for disaster-related problems, and dissemination of training in disaster mental and behavioral health interventions. Set a national agenda for this research that is supported by the Federal agencies that fund research initiatives in these areas.

¹⁰ NBSB, recommendations to Secretary, HHS, op. cit.

RECOMMENDATION 3 (INTERVENTION)

Enhance assessment of mental and behavioral health needs during emergencies.

Integrate epidemiological strategies to capture information for public policy and resource allocation. Utilize existing national health surveillance systems and State/local-based systems to rapidly assess and track mental and behavioral health needs and recovery processes in affected populations (e.g., the Centers for Disease Control and Prevention's research, including the Behavioral Risk Factor Surveillance System, Youth Behavioral Risk Surveillance System, National Hospital Discharge Survey, and National Health Interview Survey; the Substance Abuse and Mental Health Services Administration's National Household Drug Utilization Survey; the American Red Cross Mental Health Triage information; and local systems such as the Los Angeles County Rapid Mental Health Triage System).

RECOMMENDATION 4 (EDUCATION AND TRAINING)

Enhance disaster mental and behavioral health training for professionals and paraprofessionals.

Promote psychological resilience and effective delivery of psychological support by professionals and paraprofessionals through education in disaster mental health and/or training in psychological first aid.

RECOMMENDATION 5 (EDUCATION AND TRAINING)

Promote the population's psychological resilience

Promote psychological resilience of individuals, families, and communities through the development of a national strategy for the integration, dissemination, and ongoing evaluation of psychological first aid.

RECOMMENDATION 6 (EDUCATION AND TRAINING)

Ensure that the needs of at-risk individuals and issues of cultural responsiveness are being addressed in all efforts of the National Biodefense Science Board.

Support the development of mechanisms to ensure that the needs of vulnerable and at-risk populations and issues of cultural responsiveness are appropriately considered and served in the articulation and execution of the Board's recommendations and in public health activities related to emergency preparedness and response.

RECOMMENDATION 7 (COMMUNICATION AND MESSAGING)

Develop a disaster mental and behavioral health communication strategy.

- *Develop mass communication messages that deliver psychoeducation, information on sources of help, and other mental and behavioral health topics related to specific hazards/threats and disaster phases.*
- *Develop education and training regarding the integration of mental and behavioral health/social science principles and emergency risk communication.*

- *Develop a process to identify, educate, and train a cadre of mental and behavioral health experts to serve as consultants, interviewees for Federal television/Internet broadcasts, and resources for the media.*
- *Establish and enforce a policy, with respect to all disaster and emergency health issues, that:*
 - *Requires that, prior to soliciting/undertaking new Federally-funded communication initiatives, a review of similar and/or related activities of other Federal components will be performed and documented to ensure integration and prevent duplication.*
 - *Requires that all communication activities (directly operated or supported through grants, contracts, or cooperative agreements) document and ensure that they are informed by current evidence-based psychosocial factors.*

RECOMMENDATION 8 (COMMUNICATION AND MESSAGING)

Develop an accessible Internet-based communication toolkit.

At present, no single Federal source consolidates communication/message research and products developed for a variety of events (e.g., pandemic influenza, terrorism, and environmental contamination from chemical stockpile/industrial accidents). The best solution for this consolidation is the development of a Federal communication Web site.

Appendix 2: National Biodefense Science Board Disaster Mental Health Subcommittee Roster

Daniel Dodgen, Ph.D

Executive Director

Disaster Mental Health Subcommittee

Director, Office for At Risk Individuals
Behavioral Health and Human Services Coordination
Office of the Assistant Secretary for Preparedness and Response
U.S. Department of Health and Human Services
Washington, DC

Invited Experts

Chair, Betty Pfefferbaum, M.D., J.D.

Director, Terrorism and Disaster Center
National Child Traumatic Stress Network
University of Oklahoma Health Sciences Center
Oklahoma City, OK

Elizabeth Boyd, Ph.D.

Past President
Division 45 of American Psychological Association
Society for the Psychological Study of Ethnic
Minority Issues
Disaster Mental Health Institute
University of South Dakota
Vermillion, SD

Lisa M. Brown, Ph.D.

Department of Aging and Mental Health
Louis de la Parte Florida Mental Health Institute
University of South Florida
Tampa, FL

Brian William Flynn, M.A., Ed.D.

RADM, Assistant Surgeon General
U.S. Public Health Service, Retired
Severna Park, MD

Jack Herrmann, M.S.Ed., N.C.C., L.M.H.C.

Senior Advisor
Public Health Preparedness
National Association of County and City Health
Officials
Washington, DC

Stevan E. Hobfoll, M.A., Ph.D.

Professor and Chair
Department of Behavioral Sciences
Rush University Medical Center
Chicago, IL

Gerard A. Jacobs, Ph.D.

Professor and Director
Disaster Mental Health Institute
University of South Dakota
Vermillion, SD

Russell Thomas Jones, Ph.D.

Professor
Department of Psychology
Virginia Tech University
Blacksburg, VA

Ann E. Norwood, M.D.

Senior Associate
Center for Biosecurity
University of Pittsburgh Medical Center
Baltimore, MD

Josef I. Ruzek, Ph.D.

Acting Director
Dissemination and Training Division
National Center for PTSD
Veterans Affairs Palo Alto Health Care System
Menlo Park, CA

David Schonfeld, M.D., F.A.A.P.

Thelma and Jack Rubinstein Professor of Pediatrics
Director, Division of Developmental and Behavioral
Pediatrics
Director, National Center for School Crisis and
Bereavement
Cincinnati Children's Hospital Medical Center
Cincinnati, OH

Robert J. Ursano, M.D.

Department of Psychiatry
Uniformed Services University of the Health Sciences
Bethesda, MD

National Biodefense Science Board Disaster Mental Health Subcommittee Roster

Executive Director, NBSB

CAPT Leigh A. Sawyer, D.V.M., M.P.H.
U.S. Public Health Service
Office of the Assistant Secretary for Preparedness and Response
U.S. Department of Health and Human Services
Washington, DC

Executive Secretariat

LT Brook Stone, M.F.S
U.S. Public Health Service
Office of the Assistant Secretary for Preparedness and Response
U.S. Department of Health and Human Services
Washington, DC

NBSB Members

James J. James, Brigadier General (Retired), M.D., Dr.PH., M.H.A.
Director, Center for Public Health Preparedness and Disaster Response
Editor-in-Chief, Journal of Disaster Medicine and Public Health Preparedness
American Medical Association
Chicago, IL

Patricia Quinlisk, M.D., M.P.H.
State Epidemiologist and Medical Director
Iowa Department of Public Health
Des Moines, IA

Roberta Carlin, M.S., J.D.
Executive Director
American Association on Health and Disability
Atlanta, GA

Ex Officio Representatives

National Aeronautics and Space Administration

Designated by Dr. Richard S. Williams
Marc Shepanek, Ph.D.
Lead, Aerospace Medicine,
Deputy Chief, Medicine of Extreme Environments
Office of the Chief Health and Medical Officer
National Aeronautics and Space Administration
Washington, DC

U.S. Department of Defense

Designated by Dr. John Skvorak
LT COL Lisa Sayegh, M.S.W., Ph.D.,
U.S. Air Force, BSC
Command Mental Health Officer
NORAD-USNORTHCOM/SG
Office of the Command Surgeon
Peterson AFB, CO

U.S. Department of Health and Human Services

Centers for Disease Control and Prevention
Designated by Dr. Daniel Sosin
CAPT Dori Reissman, M.D., M.P.H.
U.S. Public Health Service
Interim Clinical and Medical Science Director
World Trade Center Responder Health Program
Office of the Director
National Institute of Occupational Safety and Health
Washington, DC

National Institutes of Health
Designated by Dr. Hugh Auchincloss
Farris Tuma, Sc.D., M.H.S.
Acting Director
Traumatic Stress Disorders Research Program
Division of Adult Translational Research and Treatment Development
National Institute of Mental Health
Bethesda, MD

Office of the Assistance Secretary for Preparedness and Response

Designated by Carol Linden, Ph.D.
Rachel E. Kaul, LCSW, CTS
Senior Public Health Analyst
Office of the Assistant Secretary for Preparedness and Response
Office of the Secretary
U.S. Department of Health and Human Services
Washington, DC

Substance Abuse and Mental Health Services Administration

Designated by Dr. Terry L. Cline
Terri Spear, Ed.M.
Emergency Coordinator
Office of Policy, Planning, and Budget
Substance Abuse and Mental Health Services Administration
Rockville, MD

U.S. Department of Homeland Security

Designated by Diane Berry, Ph.D.

Ingrid Hope, RN, M.S.N.

Acting Chief, Occupational Health & Wellness
Branch Division of Workforce Health Protection &
Operational Medicine
Office of Health Affairs
Department of Homeland Security
Washington, DC

U.S. Department of Veterans Affairs

Designated by Dr. Victoria Davey

Larry Lehmann, M.D.

Associate Chief Consultant
Mental Health Disaster Response
Post Deployment Activities
Department of Veterans Affairs
Washington, DC

U.S. Environmental Protection Agency

Peter R. Jutro, Ph.D.

Deputy Director
National Homeland Security Research Center
Environmental Protection Agency
Washington, DC

Consultants

David Lindley, Ph.D.

Alexandria, VA

Robert Taylor, Ph.D.

CEO
Sage Analytica, LLC
Bethesda, MD