SPECIAL FOCUS

The Integration of Mental and Behavioral Health Into Disaster Preparedness, Response, and Recovery

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ABSTRACT

The close interplay between mental health and physical health makes it critical to integrate mental and behavioral health considerations into all aspects of public health and medical disaster management. Therefore, the National Biodefense Science Board (NBSB) convened the Disaster Mental Health Subcommittee to assess the progress of the US Department of Health and Human Services (HHS) in integrating mental and behavioral health into disaster and emergency preparedness and response activities. One vital opportunity to improve integration is the development of clear and directive national policy to firmly establish the role of mental and behavioral health as part of a unified public health and medical response to disasters. Integration of mental and behavioral health into disaster preparedness, response, and recovery requires it to be incorporated in assessments and services, addressed in education and training, and founded on and advanced through research. Integration must be supported in underlying policies and administration with clear lines of responsibility for formulating and implementing policy and practice.

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Key Words: disaster mental and behavioral health, disaster preparedness, response, recovery, emergency management, federal and state disaster plans

Recently, substantial efforts have been made toward enhancing the US public health and medical infrastructure to ensure it is appropriate and expeditious to the full spectrum of disasters and public health crises. Nevertheless, gaps persist in the nation's ability to respond effectively to the mental and behavioral health effects of these events. The mental and behavioral health consequences of disasters can manifest as physical symptoms, exacerbate existing physical illnesses, undermine compliance with public health directives and warnings, contribute to difficulties in individual functioning and interpersonal relationships, increase work and school absenteeism, and adversely affect survivors' quality of life. These problems can be both debilitating and persistent, resulting in considerable individual, community, and societal costs. Timely mental and behavioral health interventions can improve response efficiency, prevent secondary adversities due to inappropriate or inadequate response, help affected populations recover and adjust to changed circumstances, improve adherence to future recommendations and directives, and increase confidence in government. Therefore, concerted attention to mental and behavioral health concerns is integral to success in preparedness, response, and recovery for disasters and public health emergencies.

Recent federal efforts in disaster preparedness, response, and recovery recognize the importance of mental and behavioral health.[1,2] Homeland Security Presidential Directive-21 (HSPD-21),[3] which presented a national strategy for public health and medical preparedness, included mental health as part of mass casualty care. Recognizing psychological support mechanisms as essential elements of "a prepared and responsive health system," the 2009 US Department of Health and Human Services (HHS) National Health Security Strategy (NHSS)[1(p11)] promotes two goals: (1) building community resilience and (2) strengthening and sustaining health and emergency response systems. The Federal Emergency Management Agency (FEMA) National Disaster Recovery Framework (NDRF)[2] promotes emotional and behavioral health considerations as an essential component of recovery.

INTEGRATING MENTAL AND BEHAVIORAL HEALTH INTO DISASTER PREPAREDNESS AND RESPONSE

The close interplay between mental health and physical health makes it critical to integrate mental and behavioral health considerations into all aspects of public health and medical disaster management. Successful integration requires mental and behavioral health efforts to be (1) incorporated in assessments and services; (2) addressed in education and training; and (3)

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founded on and advanced through research. Integration must be supported in underlying policies and administration.

Integration has the potential to

- promote compliance with public health directives;
- enhance individual and community resilience;
- augment prevention through education;
- facilitate rapid identification of individuals 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 and minimize 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 responsive policies and services;
- foster confidence and trust in government;
- empower individuals to care for themselves more effectively; and
- foster cohesion in the affected community to promote community resilience and facilitate the community's timely return to normal.

THE CHARGE TO THE DISASTER MENTAL HEALTH SUBCOMMITTEE

The National Biodefense Science Board (NBSB) was created under the authority of the Pandemic and All-Hazards Preparedness Act, signed into law on December 19, 2006.[4] The NBSB was chartered to provide expert advice and guidance to the secretary of HHS on scientific, technical, and other matters of special interest to HHS regarding current and future chemical, biological, nuclear, and radiological incidents, whether naturally occurring, accidental, or deliberate. As needed, the NBSB also provides advice and guidance to the secretary of HHS and/or the Office of the Assistant Secretary for Preparedness and Response (ASPR) on other matters related to public health emergency preparedness and response.[5]

The Disaster Mental Health Subcommittee, directed by HSPD-21[3] and established under the NBSB, was charged with submitting recommendations to the NBSB for protecting, preserving, and restoring individual and community mental health in catastrophic health event settings, including pre-, intra-, and postevent education, messaging, and interventions. On November 18, 2008, the subcommittee submitted its initial report, *Disaster Mental Health Recommendations*[6] (recommendations report), to the NBSB. Eight recommendations addressed three areas related to disaster mental and behavioral health preparedness and response: (1) intervention; (2) education and training; and (3) communication and messaging. The document included an extensive bibliography that provides scientific, clinical, and policy support for the content in this article. The complete recommendations report is available on the NBSB Web site.[6] The NBSB unanimously approved the report and voted to send the recommendations to the ASPR.[7]

On September 22, 2009, the ASPR asked the NBSB to convene the subcommittee to assess HHS's progress in integrating mental and behavioral health into disaster and emergency preparedness and response activities. On September 22, 2010, the subcommittee presented a report to the NBSB, *Integration of Mental and Behavioral Health in Federal Disaster Preparedness, Response, and Recovery: Assessment and Recommendations* (available on the NBSB Web site).[8] Noting that successful integration requires meaningful metrics and accountability, the integration report focused on policy and the organizational and structural elements necessary to translate policy into action. The NBSB voted to adopt the report and send its five recommendations to the secretary of HHS.[9] This report describes the importance and context of the integration of mental and behavioral health and provides details of the subcommittee's assessment of integration and its recommendations for integration.

Approach and Analysis

The subcommittee assessed progress toward the integration of mental and behavioral health within HHS by holding teleconferences in which ex officio members (or their designees) were first asked to identify gaps in integration efforts within their agencies, identify strategies to address these gaps, and provide a timeline for this process. Second, they were asked to identify changes in interaction with other federal agencies that would improve the agency's progress toward integration. Finally, they were asked to identify impediments to enhancing integration and ways to reduce such obstacles. A complete list of agencies is included in the integration report.[8]

Although the subcommittee was not charged with assessing integration at the state and local levels, a true status assessment requires an understanding of issues at these levels. Therefore, the subcommittee asked representatives from the Multi-state Disaster Behavioral Health Consortium to (1) identify some best-practice examples of successful integration as well as challenges and barriers at the state and local levels; (2) describe current linkages between federal and state agencies and activities that support integration as well as challenges and barriers; and (3) identify federal activities that could be initiated or adjusted to improve integration at the state and local levels.

The subcommittee reviewed the recommendations provided to the NBSB in its 2008 report, considered the need for integration and a functional definition, and analyzed the information provided by federal agency representatives.

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Reflecting on the Subcommittee's 2008 Recommendations Report

In preparing its 2008 recommendations report,[6] the subcommittee conducted a literature review and used expert consensus to generate a set of recommendations for disaster mental and behavioral health. In brief, the 2008 recommendations were to

- integrate mental and behavioral health into all public health and medical preparedness and response activities (eg, develop a disaster mental health concept of operations [CONOPS]);
- advance the research agenda for disaster mental and behavioral health;
- enhance assessment and surveillance of mental and behavioral health needs during emergencies;
- enhance disaster mental and behavioral health training for professionals and paraprofessionals;
- promote the population's psychological resilience;
- ensure that the needs of at-risk individuals and issues of cultural responsiveness are addressed in all NBSB efforts;
- develop a disaster mental and behavioral health communication strategy; and
- prepare an Internet-based communication toolkit with, for example, coordinated access to messaging and educational materials.

The subcommittee concluded that, while some progress had been made toward implementing the 2008 recommendations, persistent gaps warranted attention. These gaps existed, in part, because the scope of the recommendations was broad and because advances in disaster mental and behavioral health have been limited. Thus, the first recommendation in the integration report[8] was to fully implement the 2008 recommendations. The subcommittee noted that some of the action steps in the recommendations report were too specific to reflect evolving concerns, current conditions, and changed structures; thus, other approaches may be more appropriate for implementation in the present environment.

Six cross-cutting principles were identified in the recommendations report[6]: (1) define disaster mental and behavioral health "comprehensively to include the highly interconnected psychological, emotional, cognitive, and social influences on behavior and mental health" in the context of disaster preparedness, response, and recovery[6(p4)]; (2) encourage "practical, flexible, empowering, compassionate, and respectful" disaster mental and behavioral health interventions[6(p4)]; (3) advocate responsiveness to culture and diversity; (4) promote attention to vulnerable, at-risk populations; (5) discourage additional burdens on states/territories, federally recognized tribes, and local entities without appropriate funding and resources; and (6) advance collaboration and integration of effort among "non-traditional" government, academic, and private sector partners as well as federal, state/territory, tribal, and local partners.[6(p5)]

The subcommittee considered integration of disaster mental and behavioral health in its first recommendation in the 2008 recommendations report.[6] Recommendation 1b focused squarely on integration in proposing (1) the inclusion of language on mental health, substance abuse, and behavioral health in all appropriate legislation, regulations, and grants; and (2) the inclusion of disaster mental and behavioral health planning and exercises in performance benchmarks of new or existing federally funded emergency management programs or grants. The first recommendation also noted the importance of coordinating mental and behavioral health services through a unified CONOPS across pre-, intra-, and postevent phases. A mental and behavioral health CONOPS would identify roles and responsibilities, procedures, and processes to be used when incidents occur and would create a structure that could facilitate integration.[10] Work toward this recommendation has advanced significantly in the last two years with the publication of a Disaster Behavioral Health CONOPS by HHS[11] that will inform, and be integrated with, the nation's Emergency Support Function (ESF) #8–Public Health and Medical Services Annex.[12]

Recommendation 2 called for a national research agenda supported by federal agencies that fund research initiatives, a position echoed in the subcommittee's integration report. This recommendation proposed convening a working group of the subcommittee to review research portfolios from various agencies to identify gaps in knowledge; areas of recent progress; and priorities in program evaluation, early interventions, treatment, and dissemination of training in interventions.[6]

Integration was also promoted in recommendation 3, which advocated for enhanced assessment of mental and behavioral health during emergencies. The subcommittee envisioned using existing surveillance systems to (1) establish a baseline; (2) assess status at critical points in time; and (3) monitor mental and behavioral health reactions, needs, and recovery.[6]

Recommendations 4, 5, and 6 focused on education and training, emphasizing the importance of promoting psychological resilience through education in disaster mental health and/or training in psychological first aid and through a national strategy for the integration, dissemination, and evaluation of this intervention. The report used the term "psychological first aid" to describe supportive activities delivered by nonmental health professionals to family, friends, neighbors, coworkers, and students as well as more sophisticated psychological support delivered by primary care providers to their patients.[6 (p12)] The report recognized the limited research on the benefits of psychological first aid and called for the creation of a national strategy for integrating, disseminating, and evaluating psychological first aid.[6] Given the need to first establish an evidence base for the effectiveness of psychological first aid, the subcommittee decided against promoting it in the integration report.

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The subcommittee endorsed the inclusion of mechanisms for ensuring that the needs of at-risk individuals and cultural responsiveness are addressed in all NBSB efforts.[6] This endorsement was covered in the integration report as well.

Recommendation 7 promoted the integration of communication strategies through education and training and through policies to coordinate communication efforts across federal components. The recommendation envisioned trained mental health experts serving as consultants in developing communication strategies. With respect to the content of messages, the recommendation specified the importance of psychoeducation and information about available services and promoted a policy that would require that messages and activities be informed by existing evidence.[6]

The eighth, and final, recommendation was the creation of a federal Web site that might allow interaction with the public as well as provide a conduit for both public and professional information. This recommendation should not be interpreted as support for a single federal Web site, which might carry with it potential challenges on both sides of the communication equation. Obtaining consensus on what information to post may prove problematic and time consuming. In addition, the public may prefer multiple Web sites, given individual preferences and confidence in various information sources. The subcommittee recognized the need to stay abreast of rapidly emerging and changing communication technologies and social networks for use in reaching appropriate audiences.

THE NEED FOR MENTAL AND BEHAVIORAL HEALTH INTEGRATION AND A FUNCTIONAL DEFINITION

The subcommittee considered the need for integration and for a functional definition of integration. Attention to the integration of mental and behavioral health is necessary because mental health has not been addressed systematically or consistently in disaster preparedness, response, and recovery. Attempts at integration have commonly relied on interested individuals and organizational structures that are subject to change. Moreover, where it exists, integration has not been comprehensive or universally effective. The subcommittee noted that without integration (1) mental and behavioral health efforts may be duplicated and contradictory; (2) lessons from one disaster are not preserved for use in future disasters; and (3) responders in the field must search for and devise appropriate responses independently, do not know what resources are available and effective, and lack training to use these resources.[8] Essential to successful integration is balancing the inefficiency of unnecessary duplication with the advantages of redundancy.

A Functional Definition

Integration of disaster mental and behavioral health into preparedness, response, and recovery means that many different programs should contribute their valuable and sometimes unique expertise and services and that they should function as part of a coherent, organized structure with clear lines of responsibility, accountability, and communication. The subcommittee clarified that the focus on integration does not mean that effective existing programs specifically dedicated to disaster mental and behavioral health should be eliminated. Nor does integration mean that disaster mental health activities should be consolidated into a single agency or department, which could result in attention to these issues being minimized within other agencies and departments or marginalized throughout the federal system.[8]

ANALYSIS: THE INTEGRATION REPORT

The subcommittee concluded that, although the federal government has made progress toward integration in certain areas, far more needs to be done. The most pressing and significant opportunity to improve integration is the development of clear and directive national policy to firmly establish the role of disaster mental and behavioral health as part of a unified public health and medical response to disasters. Integration must be modeled and supported in underlying policies and administration with clear lines of responsibility for formulating and implementing policy and practice.

The analysis of the status of integration was organized around two themes: (1) policy and (2) the organizational and structural elements needed to transform policy into effective action. The subcommittee noted that success will require meaningful metrics and accountability so that policy achieves the desired goals.

Policy

In the area of policy, the subcommittee addressed (1) the federal role; (2) concerns at the state level; (3) communication; and (4) research. The subcommittee discussed the role of policy as it relates to program development, implementation, and sustainability. Much meaningful progress has been made in understanding the centrality of mental and behavioral health factors in disaster and emergency preparedness, response, and recovery; however, much remains to be done. The subcommittee concluded that many of these advancements have been made in the absence of foundational policy and have been largely due to key individuals working in an environment of shifting agency influence, landmark disasters, and the vicissitude of budgets. The subcommittee concluded that the federal government needs to establish a foundation to policies that will support systematic implementation of an evidence-based, integrated, and sustainable approach to disaster mental and behavioral health.

Federal Role

The subcommittee recognized the need for clearer policy regarding the federal government's role with respect to the most significant long-term as well as immediate emotional consequences of disasters. Without a process to publicly debate the issue and reach a consensus regarding the federal role, stakeholders both within and outside the federal government might perceive operational practice as arbitrary. The subcommittee recognized that policy discussion on this topic is inextricably

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linked to the broader debate regarding the role(s) of government in general.

Issues at the State Level

While a focus on concerns at the state level was not part of its charge, the subcommittee chose to examine issues the states face in their interactions with the federal government. Issues identified for the subcommittee by state stakeholders included the need for simpler mechanisms for funding disaster mental and behavioral health efforts, greater consistency in federal–state coordination around disaster-related concerns, and education for federal agencies concerning state and local capabilities in disaster mental and behavioral health. In general, the subcommittee concluded that the absence of clear, integrated, and implemented policies creates difficulty for the states in integrating their efforts with federal efforts as well as developing their own disaster mental and behavioral health capacity.

Communication

The subcommittee recognized the prominent role of communication, including dissemination of information, directives, and other messages, in disaster and emergency management. When the mental and behavioral health response is fragmented among entities, messages to the public may be inconsistent and may generate confusion and anger that can thwart compliance. The creation of consistent and useful messages will require integration of mental and behavioral health issues in the education and training of responders and should be supported by a coherent policy.

Research

Preparedness, response, and recovery require a much stronger evidence base than currently exists. Program evaluation studies that examine the effectiveness of existing crisis counseling approaches are especially important. In its recommendations report,[6] the subcommittee recommended convening a working group to review the research portfolios of federal research funding agencies to identify gaps in knowledge, progress, and priorities. Recognizing the importance of this recommendation, HHS has begun intradepartmental discussions with key agencies and is exploring avenues for initiating this kind of review.

The subcommittee had also called for a national research agenda supported by federal agencies that fund research in the area.[6] Reflecting on the wide-ranging interest and the limited mechanisms and policies to support a comprehensive research agenda across many federal departments and agencies, the subcommittee recommended that a forum be established to encourage the development, shared ownership, and coordination of the research agenda with prioritized goals and adequate dedicated funding. Research efforts provide a good example of important collaboration and integration. These efforts are far more likely to be successful if they are grounded not just in the good will of individuals involved but in a clear and sustained policy based on sound evidence.

Organizational and Structural Elements

Unfortunately, organizational and structural issues can hinder efforts to promote integration in a sustainable manner. The subcommittee recognized that achieving integration will be difficult and will likely require new personnel and resource structures, attention to state and local issues, and support from key stakeholders. Obstacles arise from entrenched processes, budgeting, and planning as well as from an organizational culture in which separate constituencies have developed both within and outside government. The role and structure of the federal government in disaster management are currently a matter of great public debate. It is hoped that the outcome will result in structures, processes, and an organizational culture that will foster the development and implementation of more integrated and unified efforts.

Personnel and Resource Infrastructure

The subcommittee concluded that new personnel and resource structures will be needed to achieve integration, noting that in addition to leadership, integration will necessitate expenditure of time and effort at all levels of relevant departments and agencies, policy-based expectations and direction, and clear lines of authority and accountability. The subcommittee determined that a number of agencies have previously collaborated, and are currently collaborating, to accomplish integration, particularly in response to a number of recent disasters. Ideally, with a clear and sustained policy, required personnel and appropriate resources will be available in response to future events, and sustainable integration will be forwarded by a clearer mandate, authority, and specific funding for collaborative efforts.

Issues at the State and Local Levels

The subcommittee acknowledged that success of federal programs will require attention to the organizational, structural, and funding issues at the state and local levels. Federal partners must act in ways that recognize the diversity in state structures for disaster mental and behavioral health. For example, in the National Response Framework's ESF #8,[12] mental health is an element of the public health and medical response, but many states administer mental health and public health programs separately. Furthermore, an indefensibly small proportion of federal preparedness, response, and recovery resources that flow to the states are specifically directed to mental health capabilities. Starting in 2002, modest grants were awarded by the Substance Abuse and Mental Health Services Administration to 35 states to produce state disaster behavioral health plans, but funding to sustain the initiative has not been available. All states have identified coordinators, but funding is lacking to create and maintain a dedicated staff and infrastructure.

Other Issues

Although it did not compile an exhaustive list of elements needed to transform policy into effective action, the subcommittee identified the need for resources, a mental and behavioral health CONOPS, and training. The integration report iden-

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tified both personnel and material resources. With respect to personnel needs and the use of subject matter expertise, the subcommittee raised two questions: (1) Where in the federal structure does the responsibility and authority reside to access content expertise? and (2) How is the expertise best cataloged, maintained, and used? With respect to material needs, the subcommittee noted that integration requires comprehensive, available, and easily adaptable resources for both responder and public use.

The subcommittee was reassured about progress toward including disaster mental and behavioral health components into plans, but emphasized that putting these plans into action would require the development of an overall CONOPS. Creation of the HHS CONOPS[11] is an indication of successful integration. Implementation remains an essential step toward progress.

In spite of a growing emphasis on training related to disaster mental health, the subcommittee determined that a specific office or agency must be given responsibility for identifying appropriate content and audiences, creating inventories of existing educational materials and resources, proposing educational objectives, and assuring quality. The subcommittee noted that, to improve response, research is needed on the effectiveness of various training approaches such as "train the trainer" and "just-in-time training" models.

Strategic Recommendations

The NBSB adopted the five recommendations from the subcommittee's integration report.[9] The first recommendation was that HHS adopt the eight recommendations presented in the 2008 recommendations report.[6] The second recommendation was that the secretary of HHS create a policy regarding disaster mental and behavioral health and a strategy to implement that policy. The policy should be developed in consultation with other federal departments and agencies; state, local, and tribal agencies; nongovernmental organizations; civic and community groups; and subject matter experts.

The policy should (1) clearly articulate the nature and scope of the federal government's roles and responsibilities with respect to disaster mental and behavioral health; (2) identify and delegate responsibility and authority to designated federal agencies and other entities to prepare for a full range of psychosocial consequences and provide for assessment and treatment of those consequences; and (3) develop mechanisms to integrate disaster mental and behavioral health capabilities and responsibilities across federal departments and agencies.

Because the charge of the subcommittee was to assess integration within HHS itself, and not more broadly within the federal government, the subcommittee noted that the best approach may be to pursue integration first within HHS, which could then serve as a model for other agencies. It also noted that policy gaps could be addressed in the pending reauthorization of the Pandemic and All-Hazards Preparedness Act by including content that argues forcefully for the integration of mental and behavioral health in preparedness, response, and recovery efforts.

The third recommendation was that the secretary of HHS identify and empower an office or agency within HHS to serve as the leader for disaster mental and behavioral health integration. This office or agency should have authority to (1) oversee efforts across HHS, define goals, and measure progress; (2) develop a high-level CONOPS for including mental and behavioral health across all phases of disaster management throughout the federal government; and (3) coordinate activities among all sections of HHS to marshal existing expertise and obtain additional expertise, integrate strategy, share data, and generate a credible and unified HHS response.

The fourth recommendation was that the secretary give senior HHS leaders the task of developing a set of coordinated and prioritized research goals related to disaster mental and behavioral health and the necessary support to accomplish those goals.

The fifth recommendation was that the secretary create and maintain a structure that would allow subject matter experts to regularly assess and report to the secretary on progress toward integration and on other mental and behavioral health issues. This recommendation would entail institutionalizing the subcommittee, or a comparable body or process, as an ongoing resource to provide disaster mental and behavioral health technical expertise.

After making these recommendations, the NBSB dissolved the subcommittee as a formal entity. Instead, mental and behavioral health expertise has been addressed by installing individuals with this expertise as members of the full NBSB. The subcommittee members were asked to volunteer for activities on an ad hoc basis.

CONCLUSIONS

Throughout the federal government, a limited number of officials have specific responsibility for championing the integration of disaster mental and behavioral health into federal preparedness, response, and recovery planning and activities. The subcommittee was impressed with examples of the need for mental and behavioral health integration and progress toward it. Much of this work, however, is proceeding ad hoc, largely as a result of commitment and effort by experts and motivated individuals rather than as the consequence of formal policy. Recognizing the impressive work of these individuals, the subcommittee nonetheless emphasized that implementation of an integration policy will require (1) leadership commitment; (2) policy-based direction and expectations; (3) clearer lines of authority and accountability; and (4) personnel and resource structures that currently do not exist.

In spite of these challenges, the subcommittee was pleased to find evidence at the federal level illustrating awareness of the

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importance of mental and behavioral health including, for example, the NHSS.[1] The subcommittee believes that accomplishing the NHSS goals will require systematic and sustained integration of mental and behavioral health issues throughout disaster and emergency preparedness, response, and recovery. One critical obstacle to the integration of disaster mental and behavioral health is that personnel in state, local, and tribal authorities are typically not part of a larger and comprehensive effort for integration, and their power to initiate action is limited.

The most pressing and significant opportunity to improve integration is the development of clear and directive national policy to firmly establish the role of disaster mental and behavioral health as part of a unified public health and medical response to disasters. This will require clear lines of responsibility regarding where the authority to formulate and implement such policy should reside. The two subcommittee reports provide an analysis of the status of integration with recommendations specific to the task[8] in addition to a literature review and recommendations for mental and behavioral health in general.[6] The subcommittee recognized that while the secretary of HHS can directly foster an integration policy and strategy only within its agency, the ability of HHS to act as a guide and model for other federal departments and agencies and for other levels of government should not be underestimated.

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