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Assessment of the Medical Reserve Corps Program

Final Report

Prepared for

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List of Acronyms

AHRQ	Agency for Healthcare Research and Quality
AMA	American Medical Association
APHA	American Public Health Association
ASTHO	Association of State and Territorial Health Officials
CDC-COPTER	Centers for Disease Control and Prevention Coordinating Office for Terrorism and Preparedness and Emergency Response
CERT	Community Emergency Response Teams
CSTE	Council of State and Territorial Epidemiologists
DHS	U.S. Department of Homeland Security
DMAT	Disaster Medical Assistance Team
EMS	Emergency medical services
EMT	Emergency medical technician
ESAR-VHP	Emergency System for Advanced Registration of Volunteer Health Professionals
ESF	Emergency support function
FEMA	Federal Emergency Management Agency
HHS	U.S. Department of Health and Human Services
MMRS	Metropolitan Medical Response System
MRC	Medical Reserve Corps
NACCHO	National Association of County and City Health Officials
NDMS	National Disaster Medical System
NRP	National Response Plan
OPHEP	Office of Public Health Emergency Preparedness (Currently Assistant Secretary for Preparedness and Response or [ASPR])
OSG	Office of the Surgeon General
PHS	U.S. Public Health Service
RFP	Request for proposals
UFE	Utilization-focused evaluation
USAFC	USA Freedom Corps
VA	Department of Veterans Affairs

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Introduction

In 2002, in response to the devastation wrought on 9/11 and the ensuing attacks of anthrax through the mail system, President Bush created the USA Freedom Corps (USAFC) to promote opportunities for volunteers to serve their communities while strengthening homeland security. As part of the USAFC initiative, the President also established the Citizen Corps to function as a coordinating council for numerous new and existing volunteer programs that would promote and enhance community emergency preparedness. These volunteer programs included the Community Emergency Response Teams, Fire Corps, the Neighborhood Watch Program, Volunteers in Police Service, and the Medical Reserve Corps (MRC).

The MRC was created within the Office of the Surgeon General (OSG), in the U.S. Department of Health and Human Services (HHS), with the explicit mission to "establish teams of local medical and public health professionals who contribute their skills and expertise throughout the year and during times of community need" (MRC, 2007). The MRC Program consists of local physicians, nurses, dentists, veterinarians, epidemiologists, and other volunteers preidentified as a reserve resource for their communities, ready to address emergent threats as they arise and to address broader public health needs of the community (Hoard and Tosatto, 2005). OSG implemented MRC through a small demonstration grants program in 2002–2006. During the first 2 years of the demonstration project (2002 and 2003), 42 and 124 units were funded, respectively, typically with $50,000 annually (for 2 or 3 years) in federal grant funds provided directly to each MRC unit's local sponsoring organization (i.e., local health department, university, or hospital).

The MRC Program recognized from the outset that each local community had its own unique characteristics; thus, the initial guidance for these grants was purposefully broad—an acknowledgment that the local community could best assess its special needs, define its response, and implement its program activities through its own volunteers. Nonetheless, the MRC Program established six main goals to guide and shape the activities to be undertaken by the MRC units created under the demonstration project (***Figure 1-1***). At the federal level, the role of the MRC Program office was to foster communications among MRC units and help them share lessons learned, coordinate efforts across federal agencies, enhance program visibility and recognition, and build local unit capacity through leadership conferences and technical assistance.

The concept of using volunteers to address emergency needs following disasters is a long-standing one. For many decades, the American Red Cross has successfully organized mental health counselors and other professionals to provide acute support to communities that have suffered natural disasters. Moreover, the concept of using volunteer physicians, nurses, and other health care providers to provide medical care has been demonstrated successfully for large-scale public events (Feldman et al., 2004; Wetterhall and Noji, 1997), international relief efforts in response to the Asian tsunamis

(Bridgewater et al., 2006) and other natural disasters, and severe acute respiratory syndrome (Shih and Koenig, 2006).

By contrast, the concept of identifying, recruiting, and sustaining health care providers as "volunteers-in-waiting" for service in their respective local (and more distant) communities is a more recent innovation in emergency medical response. The National Disaster Medical System (which currently falls under HHS, but during the period of the MRC demonstration project operated under the auspices of the U.S. Department of Homeland Security [DHS]) maintains a cadre of Disaster Medical Assistance Teams (DMATs) for deployment to disaster areas. These are federal assets designed to provide a rapid, definitive care response until other federal, regional, or state resources can be mobilized. MRC units can be engaged in activities complementary to DMATs as a backup to local emergency response efforts during a disaster (Hoard and Tosatto, 2005). MRC units, unlike DMATs, may be mobilized not only for an emergency or disaster, but also to support other year-round public health activities (e.g., immunization clinics, health fairs).

Figure 1-1. Six Goals of the MRC Demonstration Project

Goal 1. Demonstrate whether medical response capacity can be strengthened through MRC units consisting of a broad range of medical and health professionals.

Goal 2. Demonstrate whether surge capacity can be created to handle emergency situations that have significant consequences for the health of the population.

Goal 3. Demonstrate whether the MRC enables current and retired health professionals to obtain additional training needed to work effectively and safely during emergency situations.

Goal 4. Demonstrate whether the MRC approach provides an effective organizational framework with a command and control system within which appropriately trained and credentialed volunteers can use their skills in health and medicine.

Goal 5. Determine whether the MRC approach facilitates coordination of local citizen volunteer services in health and medicine with other response programs of the community/county/state during an emergency.

Goal 6. Determine whether the MRC approach provides cadres of health professionals who contribute to the resolution of public health problems and needs throughout the year.

The concept of volunteers-in-waiting involves a series of philosophical and operational challenges that must be faced at the local, state, and federal levels, and these dictate the need for close coordination across all those levels. Experiences both internationally (Bremer, 2003) and domestically—most notably 9/11 (Kapucu, 2006) and Hurricane Katrina (Crammer, 2005; Franco et al., 2006; Gavagan et al., 2006)—highlight the fundamental importance of coordination among multiple entities before, during, and after a disaster. Moreover, preplanning and coordination with existing emergency response protocols are especially critical for volunteers. The worst possible scenario for a volunteer is to arrive at a disaster site untrained, unprepared, and unconnected to any formally recognized, organized response effort at the local, state, or federal level. Such self-deployments, although well intentioned, are an impediment to rescue and relief efforts (Martinez and Gonzalez, 2001; Crippen, 2006; Campos-Outcalt, 2005).

Certainly, the lack of any coordinating structure to manage the multitude of self-deployed medical volunteers in the wake of 9/11 provided ample rationale for the creation of the MRC (Hoard and Tosatto, 2005). As both 9/11 and Hurricane Katrina so poignantly demonstrated, in the immediate aftermath of a disaster, many Americans are more than eager to help; however, capitalizing on those offers of assistance requires an organizational structure to manage and integrate them into existing emergency response systems. Without such a structure, medical volunteers may be turned away or

assigned to duties that do not make the best use of their talents and skills (Franco et al., 2006). The promise of the MRC Program is that it will provide states and localities the kind of organizational scaffolding needed to effectively utilize the skills and talents of medical volunteers both in times of need and for broader public health concerns.

1.1 Evaluation of the MRC Program during the Demonstration Project

To assess the conceptual underpinnings and execution of the MRC Program during the demonstration period, RTI International initiated an independent evaluation of the program in February 2005 with the three specific objectives of

- evaluating the applicability and effectiveness of the MRC Program in assisting MRC units to meet program goals,
- evaluating MRC performance over the past 3 years (2003, 2004, and 2005) as it relates to program goals and objectives, and
- evaluating the effectiveness of the MRC Program office and contract services in supporting and assisting MRC units to meet program goals.

The evaluation consists of two main activities: (1) key informant interviews with MRC Program staff in OSG and other relevant federal agencies and (2) case studies of six MRC units. The first component, the key informant interviews with federal stakeholders, was previously presented in the Interim Report. Here we present the findings of both components.

The remainder of the report is organized as follows. In Chapter 2, we describe our methods for planning and conducting the key informant interviews, as well as the criteria used to select the six case study units. In Chapter 3, we present the findings of our federal stakeholder interviews and our case study unit interviews by evaluation question. In Chapter 4, we summarize the key issues and implications of the findings for MRC design and operations.

2

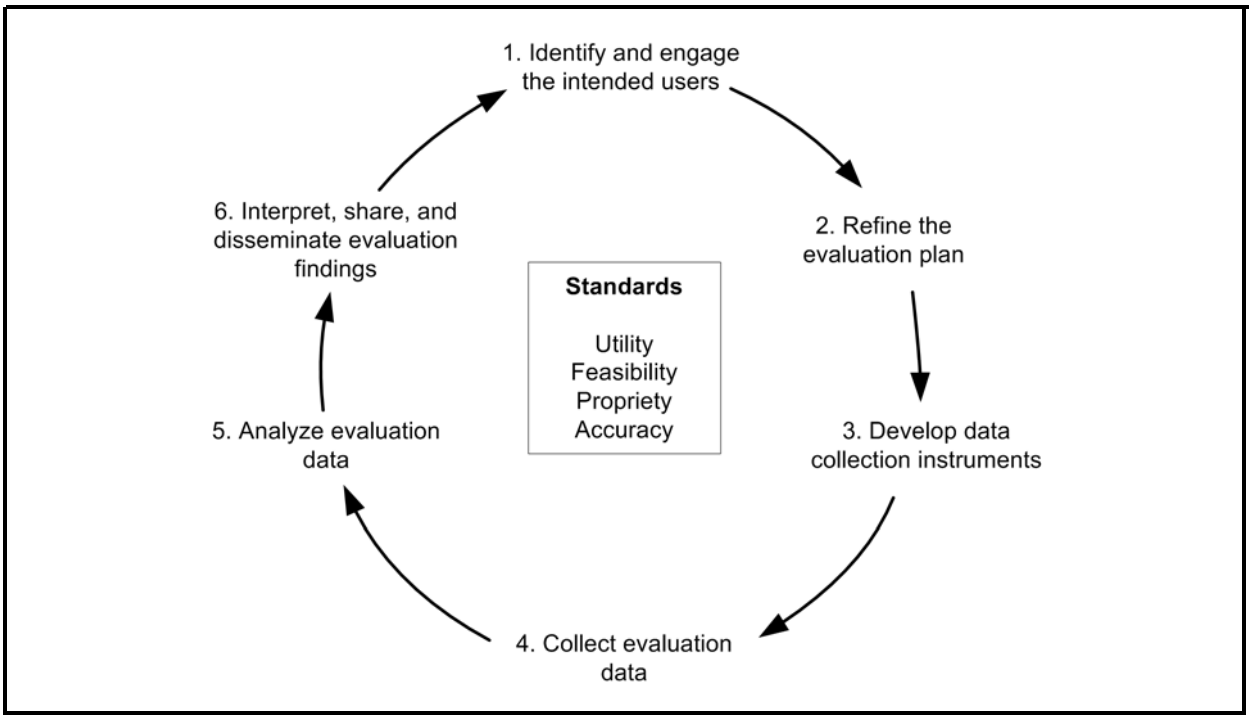
Methods

In this chapter, we describe the methods RTI used to complete the MRC Program assessment, including the key informant interviews and case studies. We describe our evaluation approach, the criteria for selection of key informants, the criteria for selecting MRC units for the case studies, our data collection protocols, and methods for data management and analysis.

2.1 Evaluation Approach

Our technical evaluation approach (***Figure 2-1)*** is based on Patton's utilization-focused evaluation (UFE) (Patton, 1997), which begins with the premise that an evaluation must first address the needs of its end users to maximize its utility and application. UFE does not advocate a particular set of models, methods, or theories, but rather is a process by which the evaluator works with the end users to ensure that the evaluation meets high standards for utility, feasibility, propriety, and accuracy. Thus, the engagement of stakeholders early and throughout the evaluation is critical to the success of an evaluation based on UFE principles. Accordingly, RTI convened an Evaluation Workgroup comprising a diversity of MRC stakeholders to solicit their input and guidance at onset of the project.

Figure 2-1. Framework for Program Evaluation



A more detailed discussion of the stakeholder engagement and data collection components is provided later in this report. In ***Appendix A,*** we present the evaluation questions and measures/indicators that assess MRC goals and the data that are relevant to the federal key informant interviews. In ***Appendix B***, we present the evaluation questions for the case studies.

2.2 MRC Evaluation Workgroup

Early in the planning phase of the evaluation, RTI convened an Evaluation Workgroup of five key MRC stakeholders. The members of the Evaluation Workgroup are presented in ***Appendix C***. The first Evaluation Workgroup meeting took place on April 6, 2006, in Washington, D.C., with several people attending via teleconference. The objective of the initial meeting was to assess the relevance and feasibility of the evaluation plan, to identify key issues and topics to be addressed by the evaluation, and identify key federal-level informants. Subsequent to that meeting, we provided Workgroup members with the opportunity to give feedback on data collection instruments.

2.3 Federal-Level Key Informants

At the initial meeting, the Evaluation Workgroup recommended a number of agencies, groups, and institutions to be included in the federal key informant interviews. RTI then worked with individual workgroup members and the MRC Program office to identify the appropriate individuals to serve as key informants. We focused on those persons who had worked most closely with the MRC Program office during the demonstration period and would therefore be the most informative for the interviews. We were able to contact or set up an interview with all but one key informant. A list of the agencies and organizations represented in the interviews can be found in ***Appendix D***. Although not all of these informants are employed in federal agencies, they are considered federal-level key informants for the purposes of this evaluation because of their relationships with the federal MRC Program Office.

RTI conducted 30- to 60-minute key informant interviews with 11 federal-level key informants from July to September 2006. The focus of these interviews was to assess interagency coordination and sharing of information, examine the challenges and successes of the MRC Program Office, and obtain a fuller understanding of the programmatic and contextual factors that have shaped MRC and that may impact its future. Interviews were conducted both in person and by phone using a semistructured discussion guide. The interviews were tape recorded with the permission of the key informants. RTI transcribed the interviews, using the recording and/or notes from each interview.

2.4 Case Studies

We conducted case studies of six MRC units that received funding from the MRC Program Office between 2002 and 2005 (the demonstration period). Within those units receiving funding, we selectively recruited six MRC units based on unit characteristics that we hypothesized would influence their performance and experiences. To obtain a broad range of experiences, units were selected based on whether the unit had been activated for an emergency, the MRC unit size, and the type of housing institution (e.g., local/state health department, hospital). The sampling scheme shown in ***Table 2-1*** was developed to represent as completely as possible the diversity of MRC units. To select units for the case studies, RTI reviewed summarized progress reports for all of the federally funded MRC units during the

demonstration period. These progress report summaries for 2003, 2004, and 2005 were provided by the MRC Program Office. Selected data on the chosen units were cross-checked with the basic unit information provided by unit coordinators and posted on the MRC Web site (http://www.medicalreservecorps.gov/FindMRC.asp). Data on the MRC units' organizational homes and size (number of volunteers) were obtained solely from the MRC Web site, because historical data for these categories were not usually available on the progress reports. RTI submitted the identities of the six initially selected MRC units to the Agency for Healthcare Research and Quality (AHRQ) for approval (to ensure that the selected units were not already participating in another ongoing evaluation). Of the initial six units, two were replaced because of known potential conflicts. Of the four remaining units and two replacement units, several were unable to participate in the case studies because of various issues, including a current emergency response that resulted in an inability to complete interviews during the project timeline, an ongoing reorganization within the MRC unit and its housing institution, and an inability to contact the individual who had served as unit coordinator during the demonstration period. A brief description of each selected unit is presented in ***Appendix E***.

Table 2-1. MRC Site Selection Criteria

Site Selection Criteria		No. of MRC Units*
Emergency deployment	Deployed	3
	Not deployed	3
Organizational home	Health department	1
	Hospital	1
	Emergency services	2
	Other	2
MRC unit size	Small (<90 volunteers)	2
	Medium (90–300 volunteers)	2
	Large (>300 volunteers)	2
Non-emergency public health activities	Performed	3
	Not performed	3

*Numbers reflect intended selections. Interviews revealed that progress reports/Web site data were not completely accurate for the demonstration period. Differences were as follows: only one MRC unit was based in emergency services and three had organizational homes in the "other" category; one MRC unit was small and three were medium; and five units performed at least one non-emergency public health activity.

Within each selected MRC unit, RTI planned to conduct semistructured interviews with five to seven individuals. Informants included the MRC unit coordinator, as well as a selection of volunteers representing different professions (e.g., physicians, nurses, counselors) and various local partner agencies (e.g., hospitals, health departments, universities). Unit coordinators were asked to identify volunteers and key informants from partner institutions for interviews. Regional MRC coordinators are appointed by the MRC Program Office and serve as liaisons between the Program Office and the individual units. The regional coordinator responsible for each selected unit was interviewed. Additionally, some states have appointed their own MRC state coordinators to provide assistance to individual units and to liaise with the Program Office. Two units had state MRC coordinators in place during the demonstration project and they were interviewed in addition to regional coordinators. Furthermore, two unit coordinators only identified one individual from a partner institution who had worked with the MRC during the demonstration period, and one MRC unit did not identify any volunteers for interviews. Thus, the total number of key informant interviews for the case studies was 34 instead of the planned 36 (***Table 2-2***). Interviews were conducted between February 27, 2007, and April 4, 2007.

The protocol for coordinating and implementing the key informant interviews was as follows:

- A structured interview guide, based on the federal key informant interview guide and tailored to the position and role of the key informant, was drafted and submitted to AHRQ and OSG for review.
- Detailed progress reports for the selected MRC units were provided by the MRC Program Office to RTI for review.
- The MRC Program Office sent a letter via e-mail to the unit coordinator and regional coordinator of each selected unit, introducing the evaluation and RTI.
- A preliminary e-mail was then sent to the selected MRC unit coordinator, describing the case study and encouraging participation. MRC unit coordinators were asked to respond if they agreed to participate and to provide possible interview dates and contact information for volunteers and partners.
- Once contact information was received, RTI followed up with key informants to schedule 30- to 60-minute telephone interviews and obtain any relevant documents. Because most of the key informants were outside of the Washington, D.C. metropolitan area and central North Carolina, all interviews were conducted via telephone.
- A senior project member or research assistant conducted the key informant interviews. All interviews were recorded with the permission of the key informant to check and verify interview notes. These tapes will be destroyed at the conclusion of the evaluation.
- Interview notes were cleaned and edited and returned to each key informant for verification.

Table 2-2. Number and Type of Case Study Key Informants

Key Informant Role	Number Interviewed
MRC state coordinator	2
MRC regional coordinator	6
MRC unit coordinator	6
MRC volunteer	10
MRC partner institution	10
Total	**34**

2.5 Data Collection Instrument

A semistructured interview guide was developed based on input received from the Evaluation Workgroup and the requirements stipulated in the original request for proposals (RFP). A draft of the interview guide for the federal key informant interviews was submitted to the OSG and the Evaluation Workgroup for review and comment. The comments RTI received were incorporated into the final version of the interview guide, which can be found in ***Appendix F.*** The interview guides for the case studies were based on the federal key informant interview guide and were modified to include topics relevant to the local units. Different interview guides were created for the unit coordinator, state/regional coordinators, partners, and volunteers, and can be found in ***Appendix G***.

2.6 Data Coding and Analysis

Key informant interview data were coded with NVivo software—a qualitative software program that allowed us to code and produce summaries of all relevant themes. We developed codes that correlated roughly to questions in the interview guides. Questions that produced similar responses were

collapsed into single codes; alternatively, we created new codes for responses that emerged independently of the questions posed. Codes were analyzed across all interviews, with the primary intent of identifying commonalities but also making note of outlier opinions and ideas. All responses were coded and reviewed by two analysts.

3

Results

In this chapter we present the findings of our discussions with 11 key informants from the federal agencies and nonprofit private organizations that worked with the MRC Program Office during the 2002–2005 demonstration period. We also present the findings of our case studies of six local MRC units. The interviews were conducted with unit coordinators, state coordinators, MRC regional coordinators, unit volunteers, and informants from local institutional partners from the demonstration period. The comments of all key informants are mostly reflective of their experiences with MRC during that time, although some recall bias most likely is present because we were asking informants to comment on events that occurred nearly 3 years ago. We would also point out that nearly a one-third of the informants only worked with the MRC Program and units for a portion of the demonstration period, so they had less experience to draw on.

We reviewed the progress reports supplied by the MRC Program Office for each unit before we conducted the key informant interviews. While the yearly progress reports provided background information useful for the interviews, they but did not supply substantially different information from what was covered during the interviews, so the document review is not presented as a separate section in this report.

For descriptive purposes, we use terms like some, many, or few to summarize the responses. For the federal-level key informants, "most or many" generally indicates eight or more informants, "some" represents four to seven informants, and "few" reflects three or fewer informants. For the case studies, "most," "the majority," and "nearly all" indicates five of the six cases, "about half" and "over half" represent four cases, "half" reflects three cases, and "few" and "a minority" indicate two cases.

This section first provides results for issues related to MRC unit genesis, design, and purpose. Next are results for external coordination, followed by emergency deployment issues, public health engagement, and finally, the organization and operation of the MRC units. ***Table 3-1*** shows how the goals of the MRC demonstration project map to the evaluation questions and where in this section the relevant results are presented.

3.1 Unit Genesis, Design, and Purpose

3.1.1 What Factors Led to the Establishment of the MRC?

Most of the MRC units in the case study were formed because there was an unmet need for medical surge capacity and disaster preparedness in their communities and the potential to utilize volunteer resources to fill that need was recognized. One of the main factors that led to the establishment of some of the units in the case study is that they were in communities that had been directly affected by the events of 9/11 or were adjacent to communities that were directly affected. These communities, therefore, had a heightened awareness of the need for surge capacity in the event of a disaster.

Table 3-1. MRC Demonstration Project Goals and Evaluation Questions

MRC Demonstration Project Goal	Evaluation Question	Report Section
Goal 1: Demonstrate whether medical response capacity can be strengthened through MRC units consisting of a broad range of medical and health professionals.	Is the size and diversity of the MRC unit sufficient to build medical response capacity?	3.1.5
Goal 2: Demonstrate whether surge capacity can be created to deal with emergency situations that have significant consequences for the health of the population.	Have MRC unit deployments been effective in building surge capacity?	3.4.1
	What factors facilitate and hinder effective emergency deployments?	3.4.1
	How are MRC activities integrated into existing emergency preparedness and response programs?	3.4.2
Goal 3: Demonstrate whether the MRC enables current and retired health professionals to obtain additional training needed to work effectively and safely during emergency situations.	How has MRC involvement enhanced the skills and competencies of volunteers?	3.4.3
Goal 4: Demonstrate whether the MRC approach provides an effective organizational framework with a command and control system within which appropriately trained and credentialed volunteers can use their skills in health and medicine.	What factors led to the establishment of the MRC?	3.1.1
	Do stakeholders understand the purpose and goal of the MRC?	3.1.2
	How did the MRC Program Office coordinate internally with MRC units?	3.5.1
	What internal communication and management structures were established to support MRC unit functions?	3.5.2
	What were the challenges to internal coordination within the unit and how were those challenges addressed?	3.5.3
	Did the MRC Program design support effective functioning?	3.1.3
	Did the MRC leadership structure support effective functioning?	3.1.4
	Were systems to track and update information on volunteers effective at the local level?	3.5.4
	How effective were MRC volunteer screening and recruitment efforts?	3.5.5
	How effective were efforts to retain MRC volunteers?	3.5.6
	What are challenges to the sustainability of MRC units?	3.5.7
Goal 5: Determine whether the MRC approach facilitates coordination of local citizen volunteer services in health and medicine with other response programs of the community/ county/state during an emergency.	How has the MRC coordinated with external partners? How do MRC units complement and integrate with existing emergency preparedness and response entities?	3.2.1
	What are the challenges to external coordination and how have those challenges been addressed?	3.2.2
Goal 6: Determine whether the MRC approach provides cadres of health professionals who contribute to the resolution of public health problems and needs throughout the year.	How have MRC units contributed to the resolution of other public health needs in the community?	3.3.1

In most of the communities of the case study units, the effort to form an MRC unit was spearheaded by one or more individuals from within the organizations responsible for that community's emergency, medical, or public health response. One selected case study unit, however, was formed by a social services agency that, upon realizing there was no volunteer unit associated with its community's emergency management or public health agencies, took the initiative to form one.

One case study unit was formed for different motives than out of a perceived need for surge capacity. A university spearheaded the effort to create this unit in the hopes that by connecting its campus

directly with the medical community, volunteers would be more responsive to enrolling in its academic programs.

3.1.2 Do Stakeholders Understand the Purpose and Goal of the MRC?

Federal MRC Program

As a new program with few dedicated resources, partnerships were critical to the program in order for it to establish itself as a credible and effective player within a complex environment of federal emergency preparedness and response. A key element to success of any collaboration or partnership is the degree to which partners share a common understanding of the purpose and goal of their respective entities (Zakocs and Edwards, 2006). Thus, it was important to assess to what degree the MRC Program had been able to convey what it was about and what it hoped to achieve.

We found that federal-level stakeholders understand some but not all of the elements of the MRC mission. When asked to describe the purpose and goal of the MRC, all federal-level stakeholders articulated the utilization of medical or allied health volunteers to respond to local emergencies and disasters. However, only about half of interviewed federal-level stakeholders indicated that MRC volunteers may include non-medical and public health professionals. Additionally, while all federal-level stakeholder responses referenced the use of MRC volunteers during disasters, few made reference to volunteer involvement in building public health capacity on an ongoing capacity throughout the year. This indicates a lack of awareness by some federal-level stakeholders that MRC has both a public health and medical care delivery focus and that the program's mission is not limited in scope to medical surge response during disasters.

MRC Units

The vast majority of the case study MRC unit stakeholders recognize that the MRC mission is both to build medical surge capacity during times of emergency and to build public health capacity throughout the year. Identifying and training medical volunteers to respond in the event of an emergency was a shared mission of all the unit stakeholders. Although they may not have been as quick to mention the public health component of the MRC mission, or may not have been successful in achieving that component during the demonstration project, unit stakeholders from five out the six case study units indicated building local public health capacity as a goal of their unit. These units actively worked within their communities to build relationships and identify numerous unmet public health needs they could fill.

One MRC unit, however, limited its purpose to building hospital surge capacity. Its primary goal was to create a database of potential hospital personnel and students who could support hospitals in the event of an emergency. While the unit was successful in achieving its goal, and in fact was the precursor to the Emergency System for Advanced Registration of Volunteer Health Professionals (ESAR-VHP), the unit did not fully embrace the demonstration project's priorities. It not only lacked a public health component but it did not engage the community to find other ways in which its hospital volunteer resource could be used to meet community needs.

3.1.3 Does the MRC Program Design Support Effective Functioning?

Federal MRC Program

As a demonstration program, the MRC approached unit design with a great deal of flexibility and innovation. The program office did not wish to impose a model MRC unit design because, at that early stage, it was not clear what a "model" unit should look like. Instead, the design of the MRC allowed local areas to have control over unit development, with the idea that each unit would know how best to meet its communities' needs. Units were allowed to be housed within any type of organization was interested in doing so, whether within emergency management, a health department, a hospital, a nongovernmental organization, or a police or fire department, given that the organization could provide or work toward the provision of the ability to provide liability coverage and credentialing. This permitted unit establishment in areas where units may not have been otherwise. The flexibility allowed for the rapid growth of MRC units, while the freedom to innovate resulted in the creation of multiple promising MRC unit models.

The flexibility in design is not without its disadvantages, however. Because MRC units vary in their size, structure, and sponsoring organization, they have developed different procedures, standards, and modes of technical assistance. There is no standardization across units with regard to training, credentialing, and supplying volunteers. In addition, MRC units may vary in mission focus depending on the sponsoring organization. For example, those units housed within emergency management agencies may be focused primarily on emergency response, while those housed in a public health department may be more focused on building public health capacity. Because the program is so fluid and inclusive, it is difficult to adequately describe a typical MRC unit, and therefore to establish a durable "brand identity."

In an effort to ensure that MRC units would be local in focus and developed to meet community needs, the sponsoring organizations of units were funded directly. However, as some federal-level stakeholders pointed out, the direct funding of the MRC units resulted in a number of difficulties. In many cases, the housing organizations or institutions that were funded had no direct link to the state and county government entities responsible for emergency preparedness and response systems (e.g. hospitals, universities). As a result, state and county health departments, which have critical responsibilities for public health preparedness and response, may not be aware of the existence of units within their areas. Moreover, state and county officials also may be reluctant to utilize MRC units over which they have no control. As a result, MRC units may not be integrated into state response plans and therefore not utilized to their full potential.

Another result of funding units directly was that the MRC Program was initially set up with a direct federal-to-local communication structure. As the MRC has expanded to become a national resource, it is retrofitting a communication mechanism that is more in line with the National Response Plan (NRP). With the creation of regional coordinators, the MRC Program anticipates the improvement of its design and function by developing a federal-regional-local communication structure.

> *I don't really think anyone had a very clear direction and, as a matter of fact, I don't think we were receiving very clear direction as to exactly what the Feds wanted out of this program.*

MRC Units

As mentioned previously, model MRC unit design was note promoted to grantees during the demonstration project. Grantees were allowed a great deal of flexibility to create units that would best meet their communities' needs. This did generate innovation in unit design, but more than one stakeholder expressed that they would have preferred more direction from the MRC Program Office during the development of their units: "I don't really think anyone had a very clear direction and, as a matter of fact, I don't think we were receiving very clear direction as to exactly what the Feds wanted out of this program."

The case studies showed some evidence that the unit housing organization influenced the mission of the unit. Units housed in emergency management organizations tended to focus more on emergency response, while those housed in health departments tended to be more involved in building public health capacity. It is not surprising that a unit would initially be more focused on the area of which its housing organization specializes since those partnerships are already established; however, eventually the majority of the units worked to incorporate both public health and emergency response activities into their MRC Programs. The exception was the hospital-based unit, which did not extend its mission beyond providing hospital surge capacity during the 3-year demonstration period.

> *I didn't get the impression that we were given a goal of what a Medical Reserve Corps was to do. Whenever the money was handed out and the contract was put out I don't think there was a stated goal. There was a stated goal that you put together a Medical Reserve Corps unit. But it really didn't tell you how and who. I didn't get the impression we were given an explicit definition of what a Medical Reserve Corps was.*

More often, MRC unit activities and scope were unintentionally limited by the housing organization's role because of liability issues. For example, the two case study units housed out of emergency management agencies encountered difficulties when trying to engage in non-emergency public health activities, because their liability coverage was tied to emergency management and did not cover non-emergency activities. These units were forced to find other liability coverage options for public health activities. As one unit leader explained, "Because we were so tied to the Office of Emergency Preparedness and all of our liability coverage ran through that, we really never got to the point of actively trying to identify other ways for the members of the MRC unit to interface with the community."

> *I think it is a fabulous program. I know it is very unique in each community. And I always find a great interest in what the other units are doing ... it is really very creative and I think a very valuable program that should be enhanced and expanded into the future, if possible.*

> *Because we were so tied to the Office of Emergency Preparedness and all of our liability coverage ran through that, we really never got to the point of actively trying to identify other ways for the members of the MRC unit to interface with the community.*

All the case study MRC units seemed to function effectively at the local level regardless of housing organization; however, the housing organization did affect the ease and speed with which MRC units were integrated at the local level. For example, the unit that was housed out of a social services agency had to work harder to build credibility and the necessary partnerships to

get buy-in at the local level than did other units housed in agencies whose mission was more in alignment with OSG/MRC goals. As one case study unit partner explained, "They had a black mark against them from the get go being the kind of organization that they were and the kind of focus…they were like a mini social services for undocumented persons. The goal and the mission of the agency didn't really fit with the MRC. It was a real big disconnect for that to be happening out of their office. I think a lot of the resistance and lack of interest was because of where it got housed."

3.1.4 Does the MRC Leadership Structure Support Effective Functioning?

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Federal MRC Program

The OSG/MRC Program leadership structure initially established under the demonstration period was not sufficient to support its functions and mandates, but it moved aggressively to develop those structures to meet its needs. During the first year of the demonstration project, the MRC did not have a full-time director but was instead led by a series of project managers (who were given this role as a collateral duty). In December 2003, Commander (now Captain) Robert Tosatto of the U.S. Public Health Service (PHS) was appointed as the full-time director of the MRC Program Office. When he came on board, there was only one other full-time staff member (a junior PHS officer) and three contracted support staff. Captain Tosatto was responsible for providing technical assistance and grants management oversight to the 166 funded MRCs. His primary charge from the Surgeon General was to develop the MRC as a program and ensure its coordination with other organizations.

It was clear early on that the exponential growth of the program required more than the two full-time staff (program director and program officer) and a small contract support to maintain good communication with external partners, provide oversight and guidance to the units, and provide the outreach that would be necessary to grow the program. In 2004, Tosatto hired an additional junior PHS officer and amended the technical assistance contract to provide 10 MRC regional coordinators to be located within the HHS regional offices. These regional coordinators would have no direct supervisory authority over MRC units but instead were to be responsible for day-to-day communications, addressing technical assistance needs and serving as channels for communication with the program office. They also were tasked with developing relationships and partnerships with regional, state, and local health officials; emergency management officials; and other partners relevant to the MRC mission as a means of promoting and developing the MRC Program in their regions. Later still, a number of state MRC coordinator positions emerged outside of the formal MRC leadership structure to facilitate coordination between MRC units, state officials, and the regional coordinators.

The leadership structure now in place at the MRC Program Office allows for a communication structure that is more in line with the NRP, and has resulted in more effective functioning. However, overall, the resources provided to the program have not been commensurate with the demands of the MRC Program Office. While all the federal-level stakeholders were very complimentary of the MRC

Program Office staff and their dedication, a number of them voiced concerns about the staffing levels at the Program Office and questioned whether MRC had the resources to meet the demands placed on it. Therefore, continued attention to staffing capacity is warranted as the program continues to evolve in size and complexity.

MRC Units

The leadership of case study units varied with regard to background and experience. Of the unit coordinators, two had a background in emergency management services, one in public health, one in sociology, one in social work, and four in volunteer coordination. Many of the interviewed case study unit stakeholders felt that the most important components of unit leadership were experience in emergency medical services (EMS) and volunteer coordination. Some unit leaders did not possess both of these skills, but were teamed up with others who did. The leadership of all the units except one received praise from interviewed stakeholders. The unit that did not was one in which the leadership did not possess EMS or volunteer management skills.

In addition to a background in EMS and volunteer coordination, many interviewed stakeholders felt that units benefited from leaders who were highly regarded members in their community and who already had many established relationships with numerous partnering entities. Those types of individuals were quickly able to bring all the necessary players to the table and get their involvement and input in the unit's advisory board. In addition, these individuals' high standing in the community automatically brought credibility to the MRC unit. As one volunteer explained, "The [invitation] letter came from [name of unit coordinator]. I had had workings with him through Boy Scouts when my son was younger. So his name had credibility to me. Anything from [name of unit coordinator] made sense to me—that it was real."

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Three of the case study units incorporated a leadership substructure under the unit coordinator. One of these units divided its volunteers into teams based on skill sets and assigned leaders to each team whose expertise was in that skill area. Another unit, in an effort to successfully manage its very large group of volunteers, divided its volunteers into platoons and units, each with a leader who was responsible for maintaining communications with those volunteers. A third unit, which covered a large region of its state, subdivided its volunteer base by location so that each group could more closely tailor its activities to the needs of its assigned community. In addition to providing more guidance to volunteers, these subleadership structures also ensure the sustainability of the units. As one unit coordinator stated, "This is the one thing that I think is most important: you can't do this with one person being responsible. Where is the business continuity in that? So I really think leadership is only as good as your ability to delegate and to make sure there is somebody else who can do what you do on any given day or you are disserving the project." In contrast, at least one case study unit had no leadership other than the unit coordinator.

3.1.5 Is the Size and Diversity of the MRC Unit Sufficient to Build Medical Response Capacity?

The MRC units recruited volunteers from a wide range of professions. Nurses tended to make up the largest group in the six case study units. Physicians also were represented in all units but in smaller numbers. Other professions represented were pharmacists, veterinarians, physician assistants, paramedics, emergency medical technicians (EMTs), dentists, public health workers, and clergy, to name a few. Most units also recruited mental health professionals as volunteers. Two units did not, but worked closely with a mental health association. One unit targeted medical and nursing students as volunteers. Two other units located in areas of large Hispanic populations had a sizable number of interpreters as volunteers. Some units actively recruited retired medical professionals as volunteers, with much success. As one unit coordinator described, "One of the things that we didn't expect, particularly in the first year and a half with the retired people, was the revitalization of them personally and professionally. And the feedback we got of that, that they felt they were throwaways and that now there was something important for them to do." Overall the units were very diverse with regard to the skills of their volunteers.

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For a number of reasons, it is more difficult to determine whether the size of each MRC unit is sufficient to build medical response capacity. One reason is that the volunteer counts of the units may be unreliable and inflated. A common theme repeated in case study interviews is that once a volunteer is put in the unit's database, they stay there. Rarely are volunteers removed from the database. In addition, many individuals are also active in other agencies such as the Community Emergency Response Teams (CERT) and the Red Cross, as well as the MRC. In the event of an emergency response, these volunteers may not be available to the MRC unit because they have been deployed through other response agencies. As one regional coordinator explained, "If I called that unit tomorrow and said I have an incident in the state and I need your volunteers, I would probably get 100, even though they have a database with 20,000 people in it. It probably covers the majority of the health care providers in the state. It's not real. It's sort of too big because I can't count on that number." Although the numbers stated are an exaggeration, the underlying message may be true for many MRC units—that the number of volunteers in a database is significantly larger than the number likely to respond to an emergency. To an extent, it is expected that only a portion of volunteers will respond, and there is no way to force 100% participation.

The units selected as case studies ranged in size from 68 to 3,400 volunteers, and each unit expressed the desire to increase its volunteer numbers. However, there is a volunteer size balance that units should strive to achieve. As the previous quote suggested, there is such a thing as too many volunteers. If units become too large, the unit leadership will not be able to manage them effectively and the volunteers will feel as though they are just a name on a list. As one unit coordinator explained, "It [my unit] needs to be bigger, but not to the point where I don't have an opportunity to create a relationship with the individual volunteer at some point and they know that this is a viable and sustainable program. We are not looking for a list."

3.2 External Coordination

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3.2.1 What External Partnerships Did the MRC Establish?

Federal MRC Program

During the first 2 years of the MRC demonstration project, the program office focused heavily on establishing and providing support to MRC units. MRC interactions with external partners during this time were largely informal and intermittent in nature and primarily centered on raising the awareness of the MRC Program among local, state, and federal partnering agencies. Staff did so by attending and presenting at partner organization meetings such as the Homeland Security Council, the National Association of City and County Health Officials (NACCHO), and the Office of Public Health Emergency Preparedness (OPHEP). The MRC also developed a relationship with the Red Cross and the Points of Light Foundation. The program was publicized through various professional organization newsletters and the Metropolitan Medical Response System (MMRS) Web site soon after its establishment.

The MRC also reached out to other professional organizations such as the American Public Health Association (APHA), the Council of State and Territorial Epidemiologists (CSTE), the American Medical Association (AMA), and the Association of State and Territorial Health Officials (ASTHO). However, informants speculated that those relationships were less well developed partly because the mission, interests, and goals of the organizations were not as closely aligned with those of the MRC as the other organizations mentioned. Also, there was a lack of MRC staff time to build and sustain these alliances, although interest in developing those ties remains.

The national deployment of MRC in 2005 during Hurricane Katrina helped increase the MRC's visibility among external partners, demonstrated its viability, and helped strengthen existing partnerships (OPHEP, American Red Cross) and build new alliances (Centers for Disease Control and Prevention Coordinating Office for Terrorism and Preparedness and Emergency Response [CDC-COPTER], National Disaster Medical System [NDMS], Veteran's Administration [VA]).

With the addition of regional coordinators in 2004, MRC Program staff was able to devote more time to developing strategic partnerships and leveraging existing resources and focusing some of the relationship building within the region. Some relationships were still informal in nature, but extended beyond basic information exchange, and others became more formalized. For example, the MRC worked with the Points of Light Foundation to develop a 2-hour volunteer management training, which was given during the 2005 national MRC meeting. The MRC's relationship with ESAR-VHP became more structured in 2004 with the establishment of an MRC workgroup and regular meetings to discuss guidelines for integrating MRC units into local and state emergency support function (ESF)-8 plans. In addition, in 2005, the VA also began to work with the MRC to explore the utility of the MRC providing backfill support for VA personnel deployed in national ESF-8 responses. Also in 2005, a small cooperative agreement was awarded to NACCHO to develop core competencies for MRC units.

MRC Units

The six MRC units represented in the case study established partnerships with a wide range of organizations over the course of the demonstration period. Nearly all had established a relationship with the local chapter of the American Red Cross, the emergency management agency in their area, and the state or local public health agency. About half had established relationships with hospitals; a few worked with local schools, professional health societies, mental health and social service agencies, and other MRC units in their region. Interestingly, although the MRC is a founding partner program of the Citizen Corps, only two MRC units reported strong ties to that entity.

The MRC partnerships were largely informal and communication was typically on a monthly or every-other-month basis. Nearly all the MRC units had at least one or two partners who assisted in some critically strategic or pivotal way, such as helping to train and orient the MRC volunteers or providing them access to an important stakeholder group (e.g., physicians).

3.2.2 What Were the Challenges to External Coordination and How Did the MRC Address Them?

Federal MRC Program

It takes time to develop relationships and nurture strategic partnerships. Staff in the MRC Program Office were stretched very thin and did not have resources to devote solely to outreach activities. While the addition of a program officer for outreach and 10 regional coordinators in 2004 significantly relieved the burden on the national office staff, most of the relationships with external partners were still largely informal in nature and contact with these partners could be sporadic.

As noted earlier, external coordination at the state level has been hampered by states' reluctance to use MRC units because (1) the states have no control over how the MRC units are established and (2) the state may not be aware of units within the state. In response, the MRC has encouraged states to appoint MRC state coordinators to increase coordination at and between the state and local levels, as well as with the MRC Program Office.

According to about half of the informants, one of the most significant obstacles to external coordination at the state and national levels was the lack of standardization across units with respect to training, credentialing, and supplying volunteers. Each MRC unit was different, so no assumptions could be made regarding baseline volunteer knowledge, skills, or the supplies that would be available to volunteers. Moreover, there was no standard protocol for managing MRC volunteers. As a few of the informants explained, this lack of structure made the MRC units essentially an unknown and therefore potentially unreliable entity, and organizations were understandably reluctant to work with them. The MRC made efforts to address some of these concerns by entering into a cooperative agreement in 2005 with NACCHO for core competency development. MRC

> *How do these volunteers know what they would be doing? Are they screened? And what happens when volunteers move? Are their names taken off the roster? How is the roster kept up to date? How do they know the roster numbers are accurate? These are big questions.*

also worked with the Points of Light Foundation to provide a 2-hour volunteer management training session during the 2005 national MRC conference.

By and large, being a newly created initiative was perhaps the most significant challenge to external coordination at the federal level during the demonstration period. As a new program, the MRC had to prove that it was a credible, reliable player and, equally important, that it had the potential to survive changing political tides. While formal and informal relationships established during the demonstration period had helped build its visibility, a few external partners with whom we spoke expressed reservations about the MRC as a viable and sustainable stakeholder in the disaster response community if certain weaknesses are not addressed (e.g., lack of core skills and knowledge, training, and credentialing).

> *I think the disaster community is a bit skeptical of the presidential programs and programs that come out of issues and are established with few resources. I think they are waiting to see if they are real or will go away with the changing of the administration. There is a bit of the attitude among the disaster community that they did this before without the MRC. And they are willing to work with MRC and observe, but they will not buy into the MRC until it has established itself as valid and long-term and part of the system. There is a lot of "wait and see" attitude.*

MRC Units

The MRC units experienced a variety of challenges in establishing the necessary partnerships to make their units successful. Mainly these collaboration challenges fell into four areas: (1) conflicts over jurisdictional authority, (2) concerns about liability protections, (3) concerns about the utility/ preparedness of the volunteers, and (4) questions about the credibility of the MRC-sponsoring organization. We discuss each of these of challenges in more depth in this section and identify facilitating factors that helped the MRC units address them.

In one case, the issue of jurisdictional authority emerged as a significant stumbling block. One MRC unit found itself operating parallel to but not in coordination with the state MRC office at the state health department because of "turf" issues driven by the fact that the MRC unit is housed outside of public health. Because volunteers may sign up for both the county MRC unit and the state MRC unit, the need to coordinate deployments would be critical during a state or national deployment. But thus far, the state health department has refused to exchange information with the county MRC unit regarding mutual volunteers. While this jurisdictional conflict is limited to this one unit, this experience may have wider implications for efforts to harmonize the management and oversight of multiple MRC units at the state level.

For half of the units, establishing critical partnerships was hampered by the perception that volunteers are unreliable, untrained, or a "hassle" to deal with during the course of an emergency or disaster. Similarly, at an organizational level, the sponsoring institutions of two of the MRC units had to contend with perceptions among key stakeholders that they lacked the breadth of experience and knowledge to support an emergency or disaster.

> *Most of the people that were being recruited for the MRC at the time were retired personnel.... These people were not welcomed with open arms into a hospital ... when you go into disaster mode, you don't ask for untrained, unskilled [people] to come into your hospital and try to start seeing patients.*

The MRC units were able to overcome these perceptions by establishing a track record through exercises and drills or actual emergency deployments. In one case, the unit was able to secure the support of a well-respected and connected physician champion who was able to help establish the unit's credibility with the local hospital administrators. In other cases, the units established goodwill and credibility by offering something of value (aside from volunteers) to their stakeholders, such as training materials, equipment, or cross-training exercises.

The second you say the word "volunteer," no one is looking at the MD [medical doctor] or the RN [registered nurse] after their name.... You have to work a little harder at getting people to understand this is a person who is an emergency room nurse or a physician who works every day as a neurosurgeon.

The issue of organizational credibility speaks to the larger question of the impact of the organizational home in developing critical external partnerships. For example, we expected MRC units with no formal ties to the emergency management agencies to have more difficulty establishing their credibility with those agencies. Instead, we found that among the four MRC units housed in organizations with no authority for emergency management, three had successfully established relationships with those entities. Likewise, we found that three of the five MRC units in nonpublic health agencies had encountered little difficulty in gaining the support and participation of their local or state public health agencies.

Thus, we found that MRC units can operate successfully in a range of organizational homes. The historical alliances between the various private and public stakeholder institutions that support the MRC unit are much too varied and unique to the locality to recommend one "best" or "ideal" organizational home across the board. While there may be one "best" organization to house an MRC unit within a particular community, each will have its own unique set of collaboration challenges. Each organization has a set of natural allies and others that take additional work to establish. The presence of a strong Citizen Corps Council may be one important facilitating factor. In two of the MRC units, working through the auspices of the Citizen Corps helped them rapidly form relationships with organizations that might have taken years to establish on their own.

The council is an assembly of key stakeholders from each of the programs and an elected official from the local area. The whole purpose of that is to identify areas where the various programs can complement one another....

3.3 Public Health Engagement

3.3.1 How Have MRC Units Contributed to the Resolution of Other Public Health Needs in the Community?

In addition to providing a cadre of health volunteers to provide assistance to local agencies in the event of an emergency or disaster, one of the goals of the MRC demonstration project was to "determine whether the MRC approach provides cadres of health professionals who contribute to the resolution of public health problems and needs throughout the year." From the case studies we found that the understanding of the types of activities that are considered to be community health activities as opposed to emergency deployment activities varied widely. Although it was not clearly true for the case studies

units, the housing institution of the MRC unit may influence whether an activity is defined as emergency deployment or community health. For example, some respondents considered MRC unit participation in influenza immunization clinics and on influenza hotlines as emergency response, while others considered the same types of activities to be public health initiatives. Others considered helping nursing home residents relocate after a fire to be community health instead of emergency deployment. The struggle to define the difference between these terms is common from the national to local level. For the purposes of this report, community health activities were defined as deployments that were planned in advance, even if the notification and response time for volunteers was somewhat short. In practice, staffing an immunization clinic could be either a community health activity or an emergency deployment.

Most of the MRC units in the case studies reported at least some non-emergency public health activities during the demonstration period. The level of participation of the MRC units in community health activities was reported as being mission dependent. If the leaders of the MRCs understood the MRC mission to be solely for emergency response, the MRC unit tended not to have participated in community health activities. For those MRC units that understood the MRC mission to include non-emergency service throughout the year, a wide variety of community health activities were reported. Some of the reported activities were

- immunization clinics, especially influenza vaccination clinics and hotlines;
- health fairs;
- community training on emergency preparedness;
- health screenings;
- staffing for first aid tables at large conferences and sporting events;
- mentoring of nursing students;
- train-the-trainer activities for emergency preparedness;
- smallpox vaccination training;
- postexposure prophylaxis in response to a disease outbreak; and
- education and outreach to undocumented persons.

In addition to the perceived mission of the MRCs, liability coverage for volunteers was a barrier to participation in community health activities for some units. A minority of units reported that their liability coverage was only for emergency responses, not day-to-day public health activities. One MRC addressed the liability issue by partnering with other agencies for liability coverage of volunteers for public health activities. Detailed information on those procedures was not provided. Half of the MRCs either used partnering with other agencies as a way to identify community health needs or saw the advantage in doing so. A few units did not know of community public health needs because they did not partner with public health agencies.

> *They are dedicated to people, especially the nurses I have been in contact with in my work in the clinic. They've been very dedicated, and very eager to help. That's why they're volunteers.*

Among all respondents who mentioned partnership, volunteer participation in community health activities was generally reported as good, although there were lower expectations for participation in community health activities than for participation in emergency response. Some respondents suggested that because volunteers had been recruited for emergency response, they were unlikely to have an interest in community health activities. Several other respondents pointed to scheduling as a barrier to volunteer participation in community health activities for the many working professionals in the MRC units. However, MRC units found ways to overcome barriers to volunteer participation in community health activities. In one unit in which there were a wide variety of community health activities, the unit coordinator commented that approximately 10% to 15% of unit volunteers participated in any single community health activity, but that different volunteers participated in different types of activities depending on the volunteers' personal interests. Volunteers likely to participate in community health activities included retired persons and those able to attend events during the day, as well as nurses and volunteers with public health experience who had "witnessed the aftermath" of events like disease outbreaks.

> *I think it is in part that we recruited as a disaster organization, and we haven't taken it to the next step. So would 290 of [the volunteers] rally if we had a [terrorist attack in this area] again? Probably. Would 290 of them rally to do a blood pressure screening at the mall? Probably not, but I could probably man it.*

About half of MRC units were seen as doing well in fulfilling the community health needs of the MRC mission. Although respondents thought the units could do more in this area in the future, the demonstration period was successful in that the units began to learn how they could serve their communities. A few MRCs envisioned increasing community health activities as a way of increasing awareness of the MRC units in their communities. Half of MRC units consider community health activities a valuable way to keep volunteer skills fresh and a means to train volunteers for emergencies, as well as to keep volunteers engaged and increase the sustainability of the MRC units. Only one unit saw a need to possibly scale back certain public health activities, out of concern that the unit may have "oversaturated" a particular community population. About half of the units believe they would benefit from increasing their partnership with public health agencies in the future, although only half of those reported concrete plans to do so.

Some barriers remain for increasing community health activities. Although the MRC unit housed in a health department was one of the units to report the most public health activities, the understanding of the mission of the MRC Program by its leaders is probably more important than the housing institution. One way to overcome the barrier of the mission perception would be to identify community health activities that the MRC volunteers, as health professionals, are uniquely able to address. Similarly, several MRC units do have a plan to increase their community health activities in the future, because they believe that the MRC mission has changed from an emergency response–focused mission to one that includes ongoing public health activities. While this suggests that initially some MRC stakeholders did not fully understand the mission of the MRC, it indicates that over time this important goal of the MRC has been given adequate attention and made clear to many stakeholders.

3.4 Emergency Deployment

3.4.1 Were MRC Unit Deployments Effective in Building Surge Capacity? What Factors Facilitated and Hindered Effective Deployment?

Federal MRC Program

The original design of the MRC Program was to serve as a medical surge resource in local disasters and emergencies. Moreover, as a demonstration project, there was no defined role for the MRC within the NRP nor were there any preexisting agreements amount the MRC and its federal and private partners to deploy MRC volunteers in the wake of a disaster of national significance. Response to Hurricane Katrina—a "watershed event for the MRC" in the words of one informant—demonstrated the MRC's utility and viability as a medical surge resource for a national call-up effort.

At the federal level, the integration of the MRC into the Katrina response activities was smooth considering the lack of preexisting protocols and the fact that the program had been in place less than 3 years. MRC Program staff coordinated their activities with their federal partners from the Operations Center at HHS and with the Red Cross at their Disaster Operations Center during the hurricane strike and in the ensuing weeks. In total, more than 600 volunteers in 105 units were deployed to the affected regions to help staff Red Cross and medical/special needs shelters, participated on medical strike teams, and provided care in a variety of settings.

A significant challenge for the utilization of volunteers in this unplanned national deployment of the MRC was the lack of uniform credentialing of volunteers. OPHEP had to verify credentials for volunteers who did not have verified credentials. Those who already had verified credentials from their unit did not need to go through any additional verification process and were immediately deployable. A few of the informants thought the integration of MRC units with ESAR-VHP would largely assist in the effort to have standardized credential process and would make any future out-of-state deployments of MRC units a smoother process.

MRC Units

Four of the six MRC units reported emergency deployments. All four units responded to Hurricanes Katrina and Rita in some way. Only two of the units in our case study had been involved in supporting a local emergency or disaster that was not related to Hurricanes Katrina and Rita during the demonstration period. One was involved in staffing local shelter operations for victims of flooding, and the other staffed a mental health clinic that was set up to handle an overflow of homeless patients at a local emergency room. The feedback provided by the partners and volunteers involved in these activities indicated that the deployment had been well executed and MRC involvement was viewed as a positive contribution to the situation.

Hurricane Katrina, which occurred at the end of the demonstration period, demonstrated the MRC units' capacity to respond out of state and, even more importantly, locally. Four of the six MRC units supported the Katrina and Rita disasters by deploying volunteers through the MRC unit to the affected areas (i.e., a national deployment). Two of those four MRC units also assisted with staffing local shelters in their communities that were set up to house evacuees. One unit also provided medical care at a clinic established for fire crews returning from the Gulf region.

> *That [having an MRC volunteer] really saved us because our state division of emergency management failed to provide us a physician to work 8 to 5 Monday through Friday while we had our service center open.... We supplemented that with MRC personnel and they were able to provide services at the center that otherwise evacuees would not have been able to obtain.*

Most of the informants reported that the activation process had been very smooth. Communication was handled primarily by e-mail, and followed up with landline and cell phone communication. The latter proved an absolute necessity in the field, which suggests that for volunteers who may not be comfortable with technology like mobile telephones and e-mail (e.g., some retired volunteers), communication could pose a problem. Obviously, disasters and emergencies do not follow a nine-to-five schedule, but one MRC unit had failed to set up an after-hours communication protocol, so when the Federal Emergency Management Agency (FEMA) issued a request for volunteers during the evening, no one was available to respond until the next day.

Volunteers deployed to the Gulf region reported that communications from federal officials at HHS and FEMA were clear and simple, and the unit coordinators encountered no major problems contacting or recruiting volunteers to take up the assignments.

> *My understanding during the debriefing afterwards is that [MRC volunteers] had appropriate information on where they were going and what they would be doing prior to being deployed, other volunteer groups who didn't have a clue what they would be doing once they were there.*

A number of factors facilitated the effectiveness of the deployment, most notably an up-to-date, manageable database of volunteer contact information that could issue mass e-mails quickly and easily, and frequent communication between the unit coordinator and volunteers deployed in the field. The small size of some of the units made one-on-one communication easier, but it was clear that even in the much larger units, unit coordinators' efforts to personally reach out to their volunteers in the field was recognized and appreciated. Furthermore, these frequent communications enabled unit coordinators to stay abreast of events as they happened so that problems could be addressed early on. For example, one unit coordinator was able to identify and return home shortly after deployment a volunteer who was so traumatized by the events that he never reported for duty.

> *I was in communication with [the MRC unit coordinator] by cell phone and that never failed us. It was very easy.*

One key finding of the Katrina experience was the importance of flexibility. It is necessary to have documented processes and procedures for activation, but they do not always cover the exigencies of a situation. Working closely with the MRC Program Office, the four units established a means to deploy their

volunteers where they were needed. One unit, however, was, in various respects, so mired in its bureaucracies and processes that it was never able to effectively deploy volunteers. The state's mutual aid agreements, according to one informant, "broke down," leaving the MRC unit with no assurances that their volunteers would be given a specific mission in a specific location—a critical piece of information they would need in order to deploy volunteers.

We were the second MRC activated and by the end it was working pretty well. It had never been done before. I mean we were up with the national office helping write policy in the middle of the night.

Aside from the few protocols and procedures that did not work as expected, there were other barriers to emergency deployment. Chief among them was the lack of liability coverage for volunteers. Four of the MRC units addressed the issue of liability either through a change in legislation or other arrangements, such as volunteers attending hospitals in order to establish themselves as a deployable resource. Many of those liability protections are in effect during a declared state of emergency, but may not cover volunteers for day-to-day public health deployments such as flu clinics.

I remember sitting in a meeting talking about the scenario for activating the MRC and one of the high ranking officers just turned to me and said, "you know the feeling is that we have enough professionals here to do the first responding. They are not going to call the MRC unless they get to the point where they don't know what else to do."

MRC units may be formally recognized in local emergency plans but, even more importantly, they have to be functionally integrated into the emergency response system. This was illustrated best by the experience of a unit in the Gulf region, when hundreds of evacuees were arriving into their community. Despite a clear need, the unit was never activated by the county emergency officials per the local preparedness plan. Ironically, as local MRC volunteers anxious to deploy waited for a call-up, scores of MRC volunteers were arriving from outside the state. When it became clear that a call to activate was never going to come, volunteers began to self-deploy through other organizations. As one respondent said, "It was kind of frustrating. We kept getting calls for people. Our protocol was that they [the county emergency management agency] were supposed to activate. That was the clear understanding. That was the way our volunteers were trained." The membership of that unit in the Gulf region was largely retired health professional volunteers. Key stakeholders (the county emergency management officials and the hospitals) had grave concerns about the volunteers' abilities, training, and preparedness. This concern was the reason the unit was never activated. During the debriefing of the event, the MRC leadership and the county emergency officials agreed that the lack of deployment had been a missed opportunity. Leadership further agreed that improvements to the training and preparation of the MRC volunteers were needed to avoid such a breakdown in the deployment process in the future. Another unit recognized this issue early on and thus required all its volunteers to undergo emergency room training at the local hospital so they could familiarize themselves with the staff and the procedures at that facility.

Communication with local partners during emergency deployments at the local level was by and large unproblematic and straightforward. However, the lack of good local-to-state communication was raised as a barrier to emergency deployment in three of the MRC units. In one case, volunteers were not afforded the state's liability protections because the unit coordinator was not aware that she should notify

the state's emergency office of their deployment. In another case, the unit coordinator had been unable to establish an effective working relationship with the state MRC coordinator. The unit coordinator felt this relationship was important because during a local emergency she might need to coordinate her resources with those that the state would deploy to her community. A few informants also described situations in which state public health officials were unaware of the existence of an MRC unit or seemed to ignore the MRC units because state officials had no direct authority over them.

> *When you are working in a Red Cross shelter ... you are not allowed to do anything but first aid. A doctor is also not going to leave a place where he can do what he is trained to do in an emergency and go administer first aid.*

Matching the skill sets of the volunteers to the needs of the emergency was a challenge as well. In most emergencies, the American Red Cross played a critical role, and the MRC units were asked to provide support in their shelter operations. However, the MRC volunteers were not permitted to render any medical attention beyond first aid when supporting Red Cross shelters, and there was a perception among some of the informants that some highly trained medical volunteers would not believe this was a good use of their skills during an emergency.[1]

A potential impediment to effective emergency deployment that was not actually realized but revealed in our discussions is the source of the recruitment pool. A few of the units recruited heavily from local hospitals which would effectively undermine surge capacity since these are the very personnel who would be required to be working during the event or disaster that involved their facility. Units have dealt with the issue of volunteers having multiple commitments to emergency response ("double-counting") in different ways. Multiple MRC units ask volunteers to supply information on other emergency response commitments on their applications. One MRC reported that volunteers with clear first response commitments are not included in the MRC database as true volunteers because they would not be available for an emergency, although they are not barred from participating. Some unit coordinators recognize the potential problems with double counting, but are not sure how to handle them. Several volunteers reported that they also volunteer with other emergency response groups. In all cases, though, the volunteers either said that the MRC was their priority, or that it would depend on the type of emergency and whichever group they perceived needed them more. Only one volunteer had a clear primary responsibility to another emergency response group, and that was military-associated.

3.4.2 Were MRCs Integrated into Emergency Preparedness Plans?

Given the MRCs' contributions to the Katrina response, it is now clear that the MRC can play an ESF-8 functions of the NRP. However, what that role should be with respect to the NRP is still under discussion. A number of the informants recommended that MRC be specifically listed as an entity within the ESF-8 of the NRP to give it greater visibility and credibility at the national level.

[1] MRC volunteers were clearly informed before being deployed with the American Red Cross that the Red Cross only allowed a basic level of care in their because of shelters their corporate liability coverage. Notification was done through listserv messages, Web site information (http://www.medicalreservecorps.gov/Hurricane/DeploymentInfo), and briefing calls.

> *To improve the situation, I suggest they do the rewrite of the National Response Plan to list them as an entity with the ESF-8. This would go a long way toward raising awareness to state and local levels, the other federal partners as well. This would give them a lot of credibility.*

Federal and national informants emphasized the importance of state and local integration as well. Absent a formal designation of roles and responsibilities within local and state emergency plans, it was unlikely, they believed, that MRC units could be effectively deployed in the event of a disaster in the community. Some respondents explained that being named as a deployable resource in a local or state preparedness plan would confer a level of credibility that emergency management and public health officials would consider a prerequisite to deployment. By the end of the demonstration period all six MRC units had been recognized as a medical resource with their local emergency plan and one had been named in its state's emergency plan.

> *I think we still have a communication issue from the federal and national level to the state level to the local level. I think communications could be improved in that respect regarding what is that people think it is they need all the way from the beginning of that request down to the end stage.*

> *I think a state, and this is not a criticism, a state needs to try to figure better coordination with the MRC and voluntary agencies like the Red Cross, so that they can be integrated in a more easy fashion.*

Formal, government-sanctioned recognition is not sufficient. Functional integration, as noted earlier, is equally if not more important. In that respect, four of the six units were working with their local emergency management in a close and coordinated fashion that would ensure they would be utilized and recognized as a valuable asset. However, for all but one MRC unit, which had "buy-in from the start" of key officials, functional integration was earned, not given. MRC units had to prove themselves by sponsoring and participating in trainings, attending meetings consistently, demonstrating reliability and competence, and validating the credentials of their volunteers.

3.4.3 How Has MRC Involvement Enhanced the Skills and Competencies of Volunteers to Support Emergency Deployment?

> *I think we are better prepared to deal with a disaster than we were prior to the MRC ... I think it has been very successful to date and I'd like to see it have the opportunity to grow to the next level of continuing to improve our preparedness, our training and resources, and inventory of resources that would be available to us if we really need them.*

Half of the MRC units conduct trainings and presentations on a monthly or every-other-month basis on a range of topics including the procedures for activation in their area, which is usually presented as part of an orientation. In addition, all MRC units have trainings and resources online that they encourage their volunteers to use. Only one MRC unit required its volunteers during the demonstration period to pass or attend a training or orientation on core topics such as the Incident Command Structure.

A perceived major shortcoming of the MRC experience for volunteers was the lack of emergency deployment training where they would have the opportunity to practice their procedures. Two of the MRC units had never conducted an emergency deployment drill, and three only did so once or twice in the

3-year demonstration period. Two of the units conducted routine (approximately monthly) response drills to assess how many and how quickly volunteers would respond.

Volunteers generally described the trainings as interesting and helpful. They also thought the trainings would have been improved by increasing interactions among volunteers, as there was not any structured opportunity to meet or get to know the other volunteers. A few would have preferred more trainings, because they did not think the training had properly prepared them for all possible types of disasters (e.g., toxic spills, radiation exposures, bombing).

3.5 Organization and Operation of the MRC

3.5.1 How Did the MRC Program Office Coordinate Internally with the MRC Units?

Lacking the staff to provide MRC units one-on-one guidance and oversight, the MRC Program Office overhauled the Web site to include a listserv and a message board so that information could be exchanged more easily between the program office and the units. In addition, the Web site added links to documents and technical assistance materials and a unit profile site that would serve as a repository for basic program demographics on each unit.

> *It [the training] was appropriate for the time, but not appropriate for what happened. You leave the session in the evening and you don't have a sense that there is a deployable team that you are a member of ... I think the program needs to be designed in such a way that it encourages those kinds of outcomes.*

The establishment of the regional coordinators described previously was the next step taken to improve internal coordination. However, the number of units varied widely within any one region, from a dozen or so to over 100; thus, the level of individual communication and interaction between the regional coordinators and their units varied to a great extent as well. Initially, regional coordinators had no specific protocol to guide their interactions with the units. However, more recently, the program office has recognized the need for more consistency in technical assistance and oversight activities and is addressing these issues.

While the regional coordinator positions were formally established as part of the MRC management structure, another form of internal coordination evolved more organically. Twenty-three states have appointed a state MRC coordinator to provide a state point-of-contact for the MRC Program and the MRC units. Typically, these individuals are based in the state health department, and their role is to facilitate coordination and information-sharing between the local MRC units, the state, and the MRC Program Office. State MRC coordinators also work with other local, state, and federal agencies and partner organizations to promote the MRC concept and public health in their state. The state coordinator position is funded by the state, not the MRC Program, therefore, the MRC Program Office does not have authority over or responsibility for their activities. Having no direct oversight or authority over the state coordinators could pose management challenges to the program as it continues to grow and mature. To date, however, communication and coordination between the MRC Program Office and the state MRC coordinators is reported to be good and no specific problems were cited with this particular arrangement during the demonstration period.

The first major test of MRC's capacity and execution of internal coordination structure was the Katrina disaster. MRC had to establish a response operation to coordinate the national call-up of volunteers "on the fly" and within the protocols established by the National Incident Management System. The program office kept the units informed on the unfolding events and medical surge needs through the listserv and the regional coordinators. Overall, communications were timely and functional on a round-the-clock basis. In a report assessing MRC operations during Katrina, efforts directed at internal communication were given high marks (MRC, 2006).

3.5.2 What Internal Communication and Management Structures Were Established to Support MRC Unit Functions?

Internal coordination between MRC unit leaders and unit volunteers took two main forms: regular meetings and routine communication outside of meetings. The frequency of regularly scheduled meetings among the case study units ranged form monthly to never. Two MRC units reported monthly meetings during the demonstration period (although one of these units appears to have no regularly scheduled meetings presently); another reported bimonthly meetings. The remainder of the units reported no regularly scheduled meetings. Smaller units tended to report regularly scheduled meetings. Of those with regular meetings, participation was considered good by respondents, although unit leaders were looking for ways to increase attendance. Meeting attendance was optional for all units, with respondents reporting that approximately 30% to 50% of volunteers attended meetings and a core group of volunteers had consistent attendance. Scheduling meetings at a suitable time (one respondent mentioned that a move of meeting time from 6:00 p.m. to 7:00 p.m. was more convenient for volunteers) and lack of interest in meeting topics were cited as barriers to volunteer participation in meetings.

In lieu of regularly scheduled meetings, some units hosted optional trainings on a more irregularly scheduled basis. One MRC unit that covered a particularly large geographic area cited an unwillingness and/or inability of volunteers to travel for hours as a reason for not having meetings, but addressed the issue by moving their trainings around to different locations as a way to increase accessibility for and participation of volunteers. Over half the MRC leaders tried different means to increase participation at meetings and trainings. Besides changing the location and time of trainings, MRCs provided meals at meetings and trainings, added a training component to regular meetings, and invited outside speakers from state and local emergency response and health agencies to increase participation. All of these methods were considered effective by informants.

For routine communication between MRC unit leaders and volunteers outside of meetings, e-mail was the most commonly used tool. A few MRC unit coordinators mentioned that there were volunteers in their units without e-mail access (up to 20% of volunteers). These coordinators used telephone or traditional mail for routine communication with those volunteers. Several MRCs have regular newsletters sent to volunteers by either e-mail or traditional mail. Additionally, several MRC units have Web sites that are used for routine communication. Volunteers did not perceive that there was too much communication from MRC unit leaders; none complained that they received too many e-mails, letters, or telephone calls. One volunteer reported essentially no communication from the MRC unit. In general, traditional mail and e-mail were used for routine communication, while e-mail or phone calls were used

for more urgent communication, such as information about emergency deployments or imminent community health opportunities.

3.5.3 What Were the Challenges to Internal Coordination Within the Unit and MRC Program and How Were Those Challenges Addressed?

Few challenges to internal coordination within the unit were reported; no challenges were reported by units regarding communication with the MRC Program Office. Although most respondents did not mention coordination at that level, one regional coordinator was especially pleased with the responsiveness of the Program Office. The biggest challenge to internal coordination was lack of staffing to complete routine tasks. Some tasks fell through the cracks—for one MRC it was writing an official unit plan of action. For others a challenge was keeping track of volunteers over time. Organizing different types of volunteers was also a challenge that has been addressed previously. A minority of MRC units used volunteers as team leaders for people with the same types of skills to help with organization, recruitment, and retention. In general, MRC units seemed to be quite successful and resourceful and did not mention specific challenges.

3.5.4 Were Systems to Track and Update Information on Volunteers Effective at the Local Level?

Systems to keep track of volunteers and their contact and training information were similar for all of the case study units. In addition to an initial application for membership, data on volunteers were kept in an electronic database for all units. Over half of the units used either a Microsoft Excel spreadsheet or Access database to keep information on volunteers. One unit used a software program called disasterhelp.net, which is designed for emergency response. A few units are changing their databases to more sophisticated systems that they have purchased from other groups. The cost of upgrading to a Web-based system was prohibitive for one MRC unit, which wanted to make the change so that the database would be more portable and easy to access by partner agencies. Although the level of sophistication of the systems used for tracking volunteers varied, a common theme was that once a volunteer was in the database, the volunteer stayed there. Unit coordinators updated databases if they were notified by a volunteer that the volunteer was leaving the unit or if routine lines of communication failed (i.e., e-mails or items mailed through the U.S. Postal Service were undeliverable). An MRC unit with a large cadre of student volunteers used student team leaders to keep information on their ever-changing list of volunteers current. One MRC unit sent out membership renewal postcards to volunteers in order to keep contact information current. For the most part, though, there was either no procedure for keeping in touch with volunteers and reassessing their interest on a regular basis or no time to do so. This lack of updated information has not been problematic for the MRC units to date, but it does suggest that the numbers of reported volunteers may be inflated.

3.5.5 How Effective Were MRC Volunteer Screening and Recruitment Efforts?

An important duty of MRC units is to ensure that their medical volunteers have the appropriate credentials. Checking credentials was accomplished through a variety of means—state licensing boards and their Web sites were the most commonly described method. Online credentialing was most successful for physicians, nurses, physician assistants, and pharmacists. For other health professionals such as dentists and veterinarians, MRC unit coordinators either called licensing boards via telephone or had

volunteers fax copies of their licenses directly to the MRC unit. Credentialing programs are constantly being updated and improved, and the ESAR-VHP program will probably positively affect how the MRCs do credentialing in the future.

In addition to credentialing, a few MRC units discussed the completion of background checks of volunteers. One unit coordinator wanted to obtain background checks on all volunteers, but was unable to find a way to meet the required costs. Another coordinator was able to get background checks through the state for $10 per volunteer, but discovered that those checks only included criminal history in their state. For volunteers participating in activities in elementary schools, for example, the coordinator used other (not described in detail) means to obtain more complete background checks. One coordinator recognized that some background information could be gleaned through the credentialing boards, in that medical licenses would not be granted to persons convicted of felonies. Another asked volunteers to give permission for a background check on the MRC application, hoping that just informing volunteers that the unit had the ability to perform background checks (in the absence of having the resources to truly obtain checks on all volunteers) would influence potential volunteers to self-select.

Methods of recruiting volunteers did not vary much by unit size or housing institution. Common means of recruiting volunteers included newspaper ads and articles, press releases, mailings to physicians' offices, and presentations at professional meetings. MRC units also had recruiting materials available at community health fairs and other activities. Word of mouth, or volunteers recruiting their colleagues, was described as a very important recruiting tool by half of the units. One MRC volunteer said she kept MRC applications at home so she would have them available for interested persons. Although half of the units mailed recruiting materials to the members of professional organizations, only one MRC reported actually purchasing state lists of licensed professionals. Overall, most MRC units felt that their recruiting efforts have been successful.

3.5.6 How Effective Were Efforts to Retain MRC Volunteers?

Retention of MRC volunteers fell into two categories for the case study units: either volunteer turnover was very low or the unit coordinators did not have a clear knowledge of turnover rates because lists of volunteers were not updated.

Units of all sizes and from all types of housing institutions reported very low rates of separation from the unit. Reasons volunteers actually left MRCs tended to be because they moved away from the area. Sometimes scheduling was a problem because volunteers realized they did not have time available to make a commitment. Occasionally, a volunteer's skills and interests were not a good match for the MRC mission. Although this problem was rarely described, one MRC unit coordinator made an effort to help those individuals find a more suitable group with which to volunteer.

MRCs that tended to have good relationships with their volunteers also tended to be smaller units (although this was not always the case), and have a mission that included public health. Larger MRCs had less contact with volunteers individually, including making an effort to recognize or retain their MRC volunteers. It was unclear if MRCs with more individual contact with volunteers or units with less contact

with volunteers really had a better idea of what level of volunteer participation to expect in an emergency, but all units generally assumed response would be good. One MRC coordinator did point out that a significant proportion of their volunteers would have a first priority to make sure their families were safe before they volunteered for an emergency.

> *We've had very little turnover. I was incredulous. I am still e-mailing most of the people that came 3 years ago and they still come to trainings and I still see them. So I'm surprised that there has been a very small turnover. I'd say about 10%. Of the ones who dropped out I know it was for health reasons—aging population, death, and moving out of the community.*

Besides personal relationships and communication, volunteers in units that included a public health focus reported that they felt very appreciated and valued by the MRC. Some of the ways in which MRCs recognized their volunteers were through means as simple as personal thanks for participation in activities. Other gestures included publishing volunteers' names in the unit newsletter, hosting awards dinners and recognizing volunteers individually, and providing certificates for participation in activities. Volunteers who participated in one unit's response to Hurricane Katrina were hosted by the State House of Representatives for a day in the state capitol and given a standing ovation from the House members. Less grand gestures may be just as important to retention of volunteers. Some tangible items that MRC units give their volunteers were MRC and Citizen Corps lapel pins, bags, T-shirts, mouse pads, and even MRC license plates. Volunteer responses were clear that any kind of recognition was appreciated, and it is reasonable to conclude that such gestures increase retention.

3.5.7 Are MRC Units Sustainable for the Long-Term?

> *I thoroughly believe that a relationship with a volunteer is how to retain a volunteer. I don't think you can just keep their names on a list. I try to call them as often as I can, let them know who I am…have a relationship with them.*

> *I think having the ability to process the Katrina incident and the stress debriefing and taking care of the volunteers was helpful. And then there is a winter awards banquet and people gain recognition. I think that was helpful with retention. And we have our MRC and our Citizen Corps pins. People like having their pins.... You feel appreciated.*

The long-term sustainability of MRC units was mentioned by multiple respondents, although there was little consensus on the most important factors for sustainability. Because interviews with unit key informants were completed more than a year after the demonstration period ended, it is clear that they have succeeded in sustaining themselves in the short-term. It was observed that challenges identified by units during the demonstration period are being addressed now, if they had not been overcome during the demonstration period. Some units have changed leadership, and others have changed their institutional home. One unit has broken into several smaller units to increase its focus on local communities. Most units have managed to obtain funding from some source, with state/county agencies the most commonly reported sources. In only one case is funding a problem, and that unit still has a few more months until the funding for the unit coordinator's salary runs out.

A key indicator of the likely sustainability of an MRC unit is its perceived success in the past. The case study respondents were overwhelmingly supportive of the achievements of their units.

Respondents recognized that the demonstration period was one in which the local units were finding their direction and were on a steep learning curve. For one respondent, the ability to change perceptions of the MRC was a success: "The MRC is nice but it wasn't perceived as something vitally necessary. I think over the course of the 4 [sic] years…I think we began to change that. In fact, my understanding now is I think the MRC is actually included in some first response initiatives." For others, the things the MRC units did to overcome challenges and accomplish their goals were signs of success. As one respondent from a partnering organization stated, "From my point of view, I think they have done an excellent job. I guess I'm giving high marks for sticking to it and working hard and looking for ways to improve and making these improvements quickly. I think they have done a really great job locally." In general, the perceived success of the MRC units by persons involved with the units would suggest that future challenges to the MRC can and will be met.

There are a lot of things I would like to start over and do differently, but I don't think the MRC is one of them.

I think that the potential of the local MRC has finally been realized.

4

Discussion of Lessons Learned

Our interviews with stakeholders of the federal MRC Program Office and case studies of six MRC units of diverse size and organization homes revealed numerous insights about the challenges and complexity of implementing a new program in a highly dynamic environment. In this section, we summarize briefly the lessons learned from the MRC demonstration project and their implications for future program development.

4.1 External Coordination

The resources devoted to the MRC Program during the demonstration period were relatively modest and, as a small player operating within a complex system for emergency preparedness and response, the viability of the program depended heavily on its ability to (1) establish collaborations with government and private partners and (2) demonstrate its utility and value to those partners. Our findings suggest that the MRC project has been successful on both fronts at the federal and local levels.

- *Lesson Learned 1*. Developing partnerships and collaborations is critical during a demonstration period. At the federal level, the MRC developed strategic alliances with ESAR-VHP, MMRS, and NACCHO and worked closely with the American Red Cross. At the local levels, units developed partnerships with local emergency agencies, public health agencies, and the American Red Cross.

Regardless of an MRC unit's organizational home, they will likely have to counter perceptions that volunteers are unreliable and unskilled, that their organization has no role in disaster relief or in public health, and/or jurisdictional turf battles.

- *Lesson Learned 2.* MRC units have to demonstrate their value to their partners and can do so by engaging with them in regular and frequent trainings and drills, participating actively in meetings, and establishing a spirit of quid pro quo so that the partners feel they are gaining as much as giving through the collaboration.

- *Lesson Learned 3.* MRC units need champions, not only the individuals who are committed to giving time and energy, but also the individuals who are highly respected and have the connections to key stakeholder groups (e.g., physicians, hospital administrators, emergency management officials) that may be inaccessible to the unit coordinator.

- *Lesson Learned 4.* A strong Citizen Corps presence in a state or community can help an MRC unit establish itself more quickly within the emergency preparedness community.

4.2 Emergency Deployment

The MRC Program was profoundly affected and shaped by the response to Hurricanes Katrina and Rita. As a demonstration project focused on local development and activity at the community level, the MRC Program did not have an established mechanism for a national-level deployment. To its credit,

the program office quickly established a communication protocol and ultimately was successful in helping deploy members from 105 units to the affected regions. The demonstration of effectiveness was all the more remarkable given that communication and activation protocols were being developed "on the fly" and that the response required was of an unprecedented scale and complexity.

- *Lesson Leaned 5.* The MRC response to Katrina and Rita demonstrated convincingly that it had a core capacity to create surge capacity (Goal 2) through local operations and out-of-state deployments.

- *Lesson Learned 6*. Listing MRC as a medical asset within the ESF-8 of the NRP may give it greater visibility and utility for future national deployments.

- *Lesson Learned 7.* Communication tools such as e-mail and cell phones are a critical necessity during an emergency deployment. Communication during emergency deployments was largely unproblematic because unit coordinators could use these technologies to contact volunteers quickly and at all hours. Communication with volunteers who are less comfortable with e-mail and mobile telephones (i.e., some retired volunteers who do not use or check e-mail frequently and prefer to use a landline phone) could be a potential problem to address.

- *Lesson Learned 8.* Flexibility is critical when there are no protocols or procedures to guide the situation or when protocols are simply breaking down. A disaster by its very nature brings a host of unforeseen problems and no emergency plan can account for all of them. An effective response requires not only an orderly attention to the established protocol, but also the ability to rapidly assess the limitations and gaps of those protocols and develop alternative strategies and approaches.

- *Lesson Learned 9*. Shared volunteers could be a problem in a large deployment. Volunteers with multiple commitments to Red Cross or CERT, and other volunteer organizations that could be called to support an emergency, raise serious issues of reliability. The problem of shared volunteers is not unique to the MRC; the problem is felt by other federal volunteer efforts, such as DMAT and MMRS.

- *Lesson Learned 10.* Integrating medical personnel into Red Cross can be problematic because Red Cross is only able to provide first aid. Some physicians are reluctant to do only first aid if their advanced skills could be used elsewhere.

- *Lesson Learned 11*. The MRC unit must operate as part of established emergency preparedness and response structures. At the local level, all but one unit was named as a medical asset in its their local emergency plans by the end of the demonstration period. Integration and communication at the state level were not as well developed. Only one case study unit had been incorporated into the state's emergency preparedness plans.

- *Lesson Learned 12.* The lack of formal integration and/or routine interaction between local MRC units and state entities undermines a command and control structure that is based on a hierarchy of local-state-federal communication. Most local deployments will not require the assistance or intervention of a state authority. However, in states where public health or emergency management authority are centralized at the state level, some level of formalized integration would be imperative; otherwise, the MRC would be seen as operating as a "lone-wolf" entity. Even in more decentralized systems, some preestablished line of communication would be helpful in a multijurisdictional deployment that requires the activation of multiple

MRC units within the state. Such integration and interaction may also help MRC units take advantage of state resources (e.g., databases, credentialing) and planning.

- *Lesson Learned 13.* Naming an MRC unit as a deployable asset within a local or state emergency preparedness plan is an important precursor to functional integration but not sufficient to ensure it. If key stakeholders such as emergency management officials and hospitals do not trust the competencies and skills of the volunteers, these volunteers will not be utilized no matter how dire the situation.

4.3 Community Health Engagement

The original mission and intent of the MRC was to support *both* the public health and preparedness/response needs of the community, in recognition of the fact that disasters and emergencies would be few and far between and maintaining volunteer interest would involve creating other opportunities for engagement. However, it was clear from the findings of this case study that the community health activities were not given the same priority as those related to emergency preparedness and response during the demonstration period. In the units in which the most community health activities were performed, the organizational home was either a social service or public health agency.

- *Lesson Learned 14.* Community health engagement is a worthy goal of the MRC design, but achieving it will require additional emphasis at all levels of MRC leadership. Helping units develop their community health mission could be an area for technical assistance, as well as recognizing the community health contributions of units more widely.

- *Lesson Learned 15.* Organizational homes other than those with direct ties to public health can support the public health mandate of the MRC. MRC units in agencies such as emergency management were eager to find opportunities to engage their volunteers in public health activities and had some success in doing so.

4.4 Organization and Operation

At the federal level, the systems and resources devoted to management and oversight evolved rapidly over the demonstration period. While communication and oversight were decentralized though contracts with 10 regional coordinators and additional program office staff devoted to outreach, a number of the informants voiced concerns about the staffing levels at the MRC Program Office and questioned whether MRC had the resources to meet the demands placed on it.

- *Lesson Learned 16.* Systems to track and update MRC unit size, composition, and capacity for deployment are in need of continued attention. Unit reporting is still largely voluntary because most MRC units are not funded and the MRC Program Office currently lacks the contractual authority to mandate more rigorous reporting of current grantees.

- *Lesson Learned 17.* The resources of the program have not been commensurate with the demands placed on it. The program has evolved to a size and complexity that warrants continued attention to staffing capacity and funding.

As the goals and mission of the MRC Program have now expanded to include national deployment, federal-state-local communication protocols will need continued attention.

- *Lesson Learned 18.* The organizational structure of the MRC at the federal and local levels needs to be closely aligned to the NRP model of local-state-region-federal communication and command structure. Although the majority of MRC unit activities and deployments will never involve any form of federal intervention, in those rare situations in which it is necessary, following a command structure that is in line with the NRP will facilitate a smooth and effective use of MRC volunteer resources.

As part of the demonstration project, MRC units were permitted to be housed in a variety of organizational homes, such as universities, hospitals, emergency management agencies, state and local public health agencies, and nongovernmental organizations. In choosing to select case studies by organizational home, this evaluation was able to assess whether this factor had any bearing on performance. Among the six case study units in this evaluation, the organizational home was in no way related to performance in any way we could systematically detect.

- *Lesson Learned 19.* MRC units can operate effectively in a range of organizational homes, but all will have a set of different challenges to address. All will have a set of skeptical stakeholders they will need to engage and commit to their mission and a new set of technical competencies and skills to master.

- *Lesson Learned 20.* The organizational home may influence the focus of the unit activities. To ensure that the unit meets both its mandates to support the emergency *and* public health needs of the community, the unit should be prepared to engage disciplines different from those of its organizational home.

- *Lesson Learned 21.* The lack of standardization among units and state governmental authority is a significant barrier to external coordination. The fact that units are "unique" and housed in a variety of organizations does not sit well with stakeholders, who need to be assured that all MRC volunteers have some basic core competencies and that they can be readily integrated into existing state and local plans. Working with stakeholders on training and drilling activities and supporting their efforts with MRC resources, as appropriate, can largely ameliorate these concerns.

Leadership of a fledgling program requires vision, energy, and persistence. By and large, most informants felt their unit coordinators were adequate in this regard. However, some were not as aware or skillful in managing volunteer relations.

- *Lesson Learned 22.* It is advantageous for unit leadership to have volunteer management experience. In particular, understanding how to engage volunteers through activities and creating opportunities to meet and build relationships with volunteers were the defining characteristics of the unit coordinators that were most active and viable by the end of the demonstration period.

If the experience of the six case units we studied is any indication, MRC leadership can be expected to change about every 3 years. Over half of the unit coordinators with whom we spoke had been out of the position for at least 2 years. Therefore, there is a need to ensure that a small cadre of individuals are ready to assume the leadership of the unit and carry it forward is critical for sustainability. Furthermore, volunteers who put a lot of time and energy into the unit may eventually need to reduce their involvement.

- *Lesson Learned 23.* Given the commonly short duration of MRC unit leadership, ample attention should be given to transition and succession planning to minimize any disruptions in unit activities and progress and share the burden of the work with those who have been less actively involved.

The training and preparation of volunteers is varied and could be improved with regard to content, frequency, and structure. Half of the units held regular meetings and trainings (including orientations for new volunteers); the others were only regularly engaged through e-mails and newsletters. Only a few units held a deployment drill more than once during the demonstration period.

- *Lesson Learned 24.* Volunteers need regular and sustained opportunities to personally engage with each other and the unit coordinator so that their commitment and enthusiasm is developed and sustained over time. The MRC unit should not be a collection of individuals in a database who have taken a few online courses or attended a few meetings.

- *Lesson Learned 25.* Units of larger size (more than 50 volunteers) will need to make greater efforts to create a personal relationships with and among the volunteers (e.g., by assigning volunteers with similar interests and skills to teams) and to recognizing their efforts.

- *Lesson Learned 26.* The lack of activation drills is a major weakness of the MRC volunteer experience. Drills can be expensive and time consuming, but it is difficult to measure the readiness of the volunteers to respond without any opportunity to apply and practice their newly acquired skills. This is an area of training that deserves additional consideration and resources.

- *Lesson Learned 27*. Ensuring volunteers have a common set of core competencies and skills can help address concerns stakeholders have about training, preparation, and utility. A cooperative agreement for capacity-building support in 2006 through NACCHO was an effort to address this lack of uniformity in knowledge and training.

It was difficult for unit coordinators of the larger units to assess volunteers' level of retention because interaction with the volunteers was limited and databases were not up to date. The smaller units had more frequent interaction with their volunteers and coincidentally also made greater efforts to recognize volunteers' efforts.

- *Lesson Learned 28*. Volunteers appreciate efforts to recognize their participation, even in small ways (e.g., pins, T-shirts). Recognition of volunteer efforts should constitute an important task of unit leadership.

The MRC units had little difficulty developing tracking systems for their volunteers, but keeping them current was a challenge. The task might be made both easier and more complex with the establishment of state-based credentialing systems supported by the ESAR-VHP program. Synchronizing the individual unit and state databases may be beyond the resources of the unit, and there may be a reluctance to share and exchange volunteer information.

- *Lesson Learned 29.* More attention needs to be given to resources and protocols for updating volunteer tracking information. The MRC Program Office could encourage units to share and

exchange information regarding various software applications and tools they have developed or found useful.

Validating the credentials of the volunteers was a major concern during the demonstration period and a task that potentially could be addressed through closer integration with ESAR-VHP systems. However, not all states have an ESAR-VHP–funded database and those that do may only enroll medical personnel.

- *Lesson Learned 30*. As ESAR-VHP programs are established, units may need additional support, guidance, and incentives at the state level to ensure optimal coordination.

4.5 Sustainability

All but one unit had secured funding beyond the demonstration period. These units had demonstrated their value to the community and been either absorbed into the housing organization or moved to another organization that would provide a stable source of funding. Ironically, the one unit that was described as having terrific "buy-in" from the "higher-up" from the beginning, was the one that had failed to secure its long-term viability. Undoubtedly, the fact that MRC inputs are relatively modest and unit staff time is usually shared with other similar duties facilitated the institutionalization of the program.

- *Lesson Learned 31*. Building a track record of success and demonstrating effectiveness is critical to long-term sustainability. Planning for postdemonstration funding should be addressed early in the implementation process.

In summary, overall the MRC Program has been highly successful in meeting the goals of the demonstration project. The success of the MRC Program at the national and local levels has been proven by the constant addition of new local units and new volunteers. (At current count, there more than 675 local MRC units and more than 121,000 volunteers.) The characteristics that make the MRC Program unique and attractive—the organization and utilization of a ready cadre of medical professionals, the fact that it is a volunteer corps, and the flexibility that local communities have in the structure and functioning of their MRC units—are precisely the characteristics that are most challenging. Many of the challenges and lessons learned from the assessment are not surprises for persons familiar with the MRC Program. In fact, many of those challenges are already being addressed by individual MRC units, the national MRC Program Office, and stakeholders of the program. Although many of the findings of this assessment signal action needed from the national program office, it is recommended that the lessons learned be shared with the local MRC units, their partners, their volunteers, and other stakeholders. Many individuals and groups will have an interest in contributing to the ongoing improvement and long-term success of the MRC Program.

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Appendix A: MRC Evaluation Questions, Measures, and Data Sources to Assess MRC Goals

Table A-1. MRC Evaluation Goals, Questions, and Measures[2]

MRC Goal	Evaluation Question	Measure/Indicator
Goal 1: Demonstrate whether medical response capacity can be strengthened through MRC units consisting of a broad range of medical and health professionals.	How do MRC units complement existing community plans for emergency preparedness?	• Degree of integration vs. duplication with community plans
	Is the MRC Plan of Action consistent with community needs and risks?	• Degree of match between planned activities and community needs
	Is the size and diversity of the MRC unit sufficient to build medical response capacity?	• Size of MRC unit • Professional diversity of MRC unit
	What types of activation strategies have been most effective?	• Cross-training activities • Communication strategies • Debriefing activities
Goal 2: Demonstrate whether surge capacity can be created to handle emergency situations that have significant consequences for the health of the population.	How are MRC activities integrated into existing emergency preparedness and response programs?	• Cross-training exercises • Information sharing • Number and type of co-sponsored events
	Do MRC volunteers and partners understand activation procedures?	• Degree of understanding
Goal 3: Demonstrate whether the MRC enables current and retired health professionals to obtain additional training needed to work effectively and safely during emergency situations.	How has MRC involvement enhanced the skills and competencies of volunteers?	• Number and type of training activities • Availability/accessibility of training activities • Quality of training activities
	How have MRC units supported volunteer participation?	• Recruitment activities • Screening activities • Retention and turnover • Verification of credentials • Addressing liability issues • Timing and location of meetings • Innovative use of technology • Internal communication protocols

[2] From the Evaluation Plan prepared by RTI International, December 2006. Some of the evaluation questions were modified or combined during the evaluation.

Table A-1. MRC Evaluation Goals, Questions, and Measures (continued)

MRC Goal	Evaluation Question	Measure/Indicator
Goal 4: Demonstrate whether the MRC approach provides an effective organizational framework with a command and control system within which appropriately trained and credentialed volunteers can use their skills in health and medicine.	Have the MRCs developed a plan of action with explicit goals, objectives, and action steps?	• Documented action plan
	Do stakeholders understand the purpose and goal of the MRC?	• Shared understanding of purpose
	Does the MRC leadership structure support effective functioning?	• Leadership strengths • Leadership weaknesses • Unit cohesion
	Have systems to track and update information on volunteers, contacts, and partners been effective?	• Tracking system: – Status – Strengths – Weaknesses
	What are the challenges to internal coordination?	• Lack of resources • Lack of personnel, expert skills
Goal 5: Determine whether the MRC approach facilitates coordination of local citizen volunteer services in health and medicine with other response programs of the community/county/state during an emergency.	How have MRC units coordinated with external partners?	• Size/scope of partnerships • Number and type of memoranda of agreement • Number and type of champions
	How have MRCs addressed barriers to external coordination?	• Negotiation • Conflict resolution
Goal 6: Determine whether the MRC approach provides cadres of health professionals who contribute to the resolution of public health problems and needs throughout the year.	How have MRCs supported other public health needs?	• Number and types of public health activities

Appendix B: Case Study Evaluation Questions

Table B-1. Evaluation Questions

Interview Question	Unit Coordinator	Volunteer	Community/ Organizational Partner	State/Regional Coordinator
Unit Genesis/Design/Purpose				
Who led the effort to establish the MRC and what were the factors that contributed to its initiation?	●			●
What was the goal or purpose of the MRC unit during the demonstration period? Was this a view that is shared by the volunteers and external partners? Has that view changed over time?	●	●	●	●
Was the MRC duplicative of other local preparedness and response initiatives or complementary? What unique need(s) did it fulfill?	●		●	●
External Coordination				
What types of relationships were established between the MRC unit and other organizations? • Formal or informal? • Info sharing? • Strategic planning?	●		●	
Emergency Deployments				
What does surge capacity mean to you?	●		●	
What kinds of emergency deployments did the MRC unit support?	●	●	●	●
Was the MRC unit specified in the state and local emergency plan? Why or why not?	●		●	●
How well did MRC volunteers understand activation protocols and local response plans for emergency deployments? What kinds of activities did you engage in to orient them?	●	●	●	
How did the MRC [*you/your organization*] work with other agencies and organizations during emergency deployments? What helped or hindered that process?	●	●	●	
How did you communicate with the MRC (or volunteers) during emergency deployments? What helped or hindered communication?	●	●	●	
What types of efforts were made to ensure MRC volunteers would have liability coverage in the event of a deployment?	●	●		●
Organizational Factors				
What was the leadership structure of the MRC unit during the demonstration period?	●			
What were the skills and background of the MRC leaders? How could leadership been improved?	●	●	●	●
What was the degree of turnover in leadership positions?	●	●		
What was the nature of the relationship between the unit and the [*name of the sponsoring organization*]?	●			●

Table B-1. Evaluation Questions (continued)

Interview Question	Unit Coordinator	Volunteer	Community/ Organizational Partner	State/Regional Coordinator
Organizational Factors (continued)				
What kind of resources or in-kind supports did the [*name of the sponsoring organization*] provide? Other external partners? What resources or supports were lacking?	•		•	•
How often did the MRC units meet? What was the level of attendance? What contributed to good/poor attendance?	•	•		
Who was involved in developing the MRC's written plan of action?	•	•		
Communication Factors				
What types of systems did the MRC unit use to track and update information on volunteers, contacts, and partners? Were they useful? How could they have been improved?	•			
How did the MRC routinely communicate with its volunteers? • Phone? • Mail? • E-mail/Web?	•	•		
Staffing				
What professions are represented in the MRC unit? What professions or skill sets does the unit need?	•	•		•
Has the size of the MRC unit been adequate? Does the unit need to be bigger/smaller?	•	•		•
Training and Technical Assistance				
What kinds of training and technical assistance did volunteers (or unit leaders) receive?				
Was the training and technical assistance provided adequate? If not why and how could it have been more so?				
Recruitment and Retention				
What procedures were established to verify the credentials and background of MRC volunteers? How could they have been improved?	•			
How did volunteers learn about and become members of the MRC unit during the demonstration period?	•	•		
What was the level of turnover of MRC volunteers during the demonstration period? What were the major reasons volunteers dropped out? • Meeting time/location? • Time commitment? • Left the area? • Skills and interest not compatible with MRC goals?	•	•		•
What strategies did the MRC unit employ to retain volunteers?	•	•		

Table B-1. Evaluation Questions (continued)

Interview Question	Unit Coordinator	Volunteer	Community/ Organizational Partner	State/Regional Coordinator
Community Health Deployments				
What types of community health activities were carried out by the unit during the demonstration period?	•	•	•	•
What was the level of interest and participation in these activities among the MRC volunteers?	•	•		
How could the MRC units been more effectively utilized to address public health needs in the community?	•	•	•	•

Appendix C: MRC Evaluation Workgroup Members

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Appendix D: MRC Federal-Level Key Informant Agencies and Organizations

- MRC Program Office, Office of the Surgeon General, U.S. Department of Health and Human Services
- Citizen Corps Program, U.S. Department of Homeland Security
- Emergency System for Advanced Registration of Volunteer Health Professionals, Health Resources and Services Administration
- American Red Cross
- Points of Light Foundation
- Metropolitan Medical Response System, U.S. Department of Homeland Security
- Centers for Disease Control and Prevention
- Veteran's Health Administration
- Office of Public Health Emergency Preparedness, U.S. Department of Health and Human Services
- National Disaster Medical Service, U.S. Department of Health and Human Services
- New Jersey State Police Office of Emergency Management

Appendix E: Case Study Unit Profiles

The data in these profiles are based on summary progress reports supplied to RTI by the MRC Program Office, with the exception of number of volunteers. Unit size data were collected from the MRC Web site and were assumed to be similar to the unit sizes during the demonstration period. In some cases, data gathered during the key informant interviews contradicted the data in these profiles.

Case Study Unit 1: A large hospital-based unit of several thousand volunteers. During the demonstration project, Unit 1 was not involved in an emergency deployment but it did report involvement in non-emergency public health activities.

Case Study Unit 2: This unit was housed out of a nongovernmental social services agency. The unit was small in size and was not involved in an emergency deployment during the demonstration project, but was involved in non-emergency public health activities.

Case Study Unit 3: This was a medium-sized unit of more than 100 volunteers, housed out of a local health department. During the demonstration project this unit supported emergency deployments and was involved in non-emergency public health activities.

Case Study Unit 4: This medium-sized unit was established by a university, in conjunction with the local office of emergency management. This unit also formed and incorporated a steering committee into its management structure. Unit 4 did not report involvement in public health initiatives or emergency deployments during the demonstration project.

Case Study Unit 5: This was a large unit of several hundred volunteers that was housed within the local government. During the demonstration project, this unit was involved in emergency deployments and non-emergency public health activities.

Case Study Unit 6: This was a medium-sized unit housed out of the local emergency management agency. It formed and incorporated an advisory board into its management structure. Unit 6 was involved in emergency deployments and public health initiatives during the demonstration project.

Appendix F: Master Interview Guide for Federal-Level MRC Key Informant Interviews

Introduction

Before we get started I'd like to tell you a little bit about the Assessment of the MRC Demonstration Project and the purpose of our interview today. In FY 2002, the Office of the Surgeon General initiated the MRC Demonstration Project to facilitate the formation of local units whose membership would include volunteer medical and public health professionals who could respond to local emergencies and disasters, as well as address broader public health needs in their communities. RTI International, a nonprofit research firm based in North Carolina, has been contracted to evaluate the MRC Demonstration Project from its period of implementation from 2002 to 2005, assess its feasibility and potential for replication, and provide recommendations for enhancing the program overall.

As part of this evaluation, we are conducting key informant interviews with a select sample of individuals from the public and private organizations who in some capacity interface with the MRC Program. You were identified by the evaluation's Expert Panel as a key informant based on your position and background. During today's interview, we will ask you to discuss your involvement with the MRC Program and federal emergency management and coordination activities more generally.

In order to accurately document your comments, we'd like to tape record the interview. These tapes are for our own note-taking purposes only and will be destroyed at the end of the project. You will also have an opportunity to review and edit a written summary of our interview. Do we have your permission to tape the interview?

[IF OK, PROCEED, IF NO, JUST TAKE NOTES]

We will be preparing a report that presents the findings from all the federal key informant interviews. In order to protect your confidentiality, your comments will in no way be linked to your name. We may, however, use a generic description of the source of a comment such as "a HHS key informant." As this is a voluntary interview, you can decline to answer any questions or end this interview at any time with no consequences to you.

Before we begin, do you have any questions about the project or this interview?

After having reviewed the interview guide, are there any questions you can't address and we should skip over?

Stakeholder Background

To begin, we'd like to learn a little about you. Could you describe your position and your responsibilities as they pertain to that position?

- How long have you been in this position?

Awareness of MRC

What is your understanding of the purpose and goal of the MRC?

Was the MRC duplicative of other federal initiatives in place from 2002–2005 or complementary? What unique need(s) did it fulfill?

What, if anything, would you change about the design or scope of the program to enhance its functioning?

MRC External Coordination

In your capacity as (POSITION in AGENCY), how did you work or engage with the MRC Program during the period of 2002–2005?

How would you characterize the involvement between the MRC Program and your agency [other federal/private agencies and organizations] from 2002–2005?

- Was involvement mostly formal or informal?
- Was the MRC Program Office a part of any decision protocol that involves your agency?
- Were you involved in planning and coordination at a strategic level?
- Was your involvement mostly in the capacity of information sharing?

Overall, how would you describe the quality of the coordination between the MRC Program and your agency [or other federal agencies and organizations] during the demonstration period?

Has your relationship with the MRC Program changed over time? How?

What were the mechanisms or factors in place that facilitated coordination with the MRC?

More broadly speaking, how well was the MRC Program integrated into the federal emergency preparedness and response plans in place from 2002–2005? Has that level of integration changed over time?

What could be done to better coordinate emergency response and preparedness activities with the MRC at the federal level?

- What barriers need to be addressed? How?

Appendix G: Master Interview Guides for Key Informant Interviews

MRC Unit Coordinator

Introduction

Before we get started I'd like to tell you a little bit about the Assessment of the MRC Demonstration Project and the purpose of our interview today. In FY 2002, the Office of the Surgeon General initiated the MRC Demonstration Project to facilitate the formation of local units whose membership would include volunteer medical and public health professionals who could respond to local emergencies and disasters, as well as address broader public health needs in their communities. RTI International, a nonprofit research firm based in North Carolina, has been contracted to evaluate the MRC Demonstration Project from its period of implementation from 2002 to 2005, assess its feasibility and potential for replication, and provide recommendations for enhancing the program overall.

As part of this evaluation, we are conducting case studies of six MRC units that represent the diversity of the MRC Program with regards to unit size, housing institution, emergency response experience, and public health initiatives. For the case study, we will be conducting key informant interviews with up to six stakeholders from each unit. Unit stakeholders include MRC unit volunteers, the MRC coordinator, the MRC state or regional coordinator, and representatives from MRC unit partner institutions (for example hospitals, health departments, churches, or universities). The focus of the case studies will be to provide lessons learned and best practices in the functional areas of internal coordination, external coordination, and volunteer relations during the demonstration period for the years 2002–2005.

In order to accurately document your comments, we'd like to tape record the interview. These tapes are for our own note-taking purposes only and will be destroyed at the end of the project. You will also have an opportunity to review and edit a written summary of our interview. Do we have your permission to tape the interview?

[IF OK, PROCEED, IF NO, JUST TAKE NOTES]

We will be preparing a report that presents the findings from all the key informant interviews from each case study. In order to protect your confidentiality, your comments will in no way be linked to your name. We may, however, use a generic description of the source of a comment such as "a unit volunteer." As this is a voluntary interview, you can decline to answer any questions or end this interview at any time with no consequences to you.

Before we begin, do you have any questions about the project or this interview?

Stakeholder Background

To begin, we'd like to learn a little about you. Could you briefly describe your history and involvement with the (*insert unit name*) MRC unit?

Unit Genesis/Design/Purpose

Who led the effort to establish the MRC and what were the factors that contributed to its initiation?

What was the goal or purpose of the MRC unit during the demonstration period? Was this a view that is shared by the volunteers and external partners? Has that viewed changed over time?

Was the MRC duplicative of other local preparedness and response initiatives or complementary? What unique need(s) did it fulfill?

External Coordination

What types of relationships were established between the MRC unit and other organizations?

- What organizations?
- Were the partnerships
  - formal or informal?
  - info sharing?
  - strategic planning?

Emergency Deployments

As you know, the goals of the MRC involve enhancing surge capacity; however, people may interpret that term in different ways. Before we engage in a discussion about the MRC unit's support of emergencies, we'd like to know, what does surge capacity mean to you?

What kinds of emergency deployments did the MRC unit support during the demonstration period?

Was the MRC unit specified in the state and local emergency plan in place from 2002–2005? Why or why not?

How well did MRC volunteers understand activation protocols and local response plans for emergency deployments? What kinds of activities did you engage in to orient them?

How did the MRC work with other agencies and organizations during emergency deployments? What helped or hindered that process?

How did you communicate with the MRC (or volunteers) during emergency deployments? What helped or hindered communication?

What types of efforts were made to ensure MRC volunteers would have liability coverage in the event of a deployment?

Organizational Factors

What was the leadership structure of the MRC unit during the demonstration period?

What were the skills and background of the MRC leaders? How could leadership have been improved during the demonstration period?

What was the degree of turnover in leadership positions?

What was the nature of the relationship between the unit and the [*name of the sponsoring organization*]?

What kind of resources or in-kind supports did the [*name of the sponsoring organization*] provide? Other external partners? What resources or supports were lacking?

How often did the MRC unit meet? What was the level of attendance? What contributed to good/poor attendance?

Who was involved in developing the MRC's written plan of action?

Communication Factors

What types of systems did the MRC unit use to track and update information on volunteers, contacts, and partners? Were they useful? How could they have been improved?

How did the MRC routinely communicate with its volunteers?

- phone?
- mail?
- e-mail/Web?

Staffing

What professions are represented in the MRC unit? What professions or skill sets does the unit need?

Has the size of the MRC unit been adequate? Does the unit need to be bigger/smaller?

Training and Technical Assistance

What kinds of training and technical assistance did volunteers (or unit leaders) receive?

Was the training and technical assistance provided adequate? If not, why and how could it have been more so?

Recruitment and Retention

What procedures were established to verify the credentials and background of MRC volunteers? How could they have been improved?

How did volunteers learn about and become members of the MRC unit during the demonstration period?

What was the level of turnover of MRC volunteers during the demonstration period? What were the major reasons volunteers dropped out?

- Meeting time/location?
- Time commitment?
- Left the area?
- Skills and interest not compatible with MRC goals?

What strategies did the MRC unit employ to retain volunteers?

Community Health Deployments

What types of community health activities were carried out by the unit during the demonstration period?

What was the level of interest and participation in these activities among the MRC volunteers?

How could the MRC units have been more effectively utilized to address public health needs in the community?

MRC State / Regional Coordinator

Introduction

Before we get started I'd like to tell you a little bit about the Assessment of the MRC Demonstration Project and the purpose of our interview today. In FY 2002, the Office of the Surgeon General initiated the MRC Demonstration Project to facilitate the formation of local units whose membership would include volunteer medical and public health professionals who could respond to local emergencies and disasters, as well as address broader public health needs in their communities. RTI International, a nonprofit research firm based in North Carolina, has been contracted to evaluate the MRC Demonstration Project from its period of implementation from 2002 to 2005, assess its feasibility and potential for replication, and provide recommendations for enhancing the program overall.

As part of this evaluation, we are conducting case studies of six MRC units that represent the diversity of the MRC Program with regards to unit size, housing institution, emergency response experience, and public health initiatives. For the case study, we will be conducting key informant interviews with up to six stakeholders from each unit. Unit stakeholders include MRC unit volunteers, the MRC coordinator, the MRC state or regional coordinator, and representatives from MRC unit partner institutions (for example hospitals, health departments, churches, or universities). The focus of the case studies will be to provide lessons learned and best practices in the functional areas of internal coordination, external coordination, and volunteer relations during the demonstration period of 2002–2005.

In order to accurately document your comments, we'd like to tape record the interview. These tapes are for our own note-taking purposes only and will be destroyed at the end of the project. You will also have an opportunity to review and edit a written summary of our interview. Do we have your permission to tape the interview?

[IF OK, PROCEED, IF NO, JUST TAKE NOTES]

We will be preparing a report that presents the findings from all the key informant interviews from each case study. In order to protect your confidentiality, your comments will in no way be linked to your name. We may, however, use a generic description of the source of a comment such as "a unit volunteer." As this is a voluntary interview, you can decline to answer any questions or end this interview at any time with no consequences to you.

Before we begin, do you have any questions about the project or this interview?

Stakeholder Background

To begin, we'd like to learn a little about you. Could you briefly describe your history and involvement with the (*insert unit name*) MRC unit?

Unit Genesis/Design/Purpose

Who led the effort to establish the MRC and what were the factors that contributed to its initiation?

What was the goal or purpose of the MRC unit during the demonstration period? Was this a view that is shared by the volunteers and external partners? Has that viewed changed over time?

Was the MRC duplicative of other local preparedness and response initiatives or complementary? What unique need(s) did it fulfill?

Emergency Deployments

What kinds of emergency deployments did the MRC unit support during the demonstration period?

Was the MRC unit specified in the state and local emergency plan in place from 2002 to 2005? Why or why not?

What types of efforts were made to ensure MRC volunteers would have liability coverage in the event of a deployment?

Organizational Factors

What were the skills and background of the MRC leaders? How could leadership have been improved?

What was the nature of the relationship between the unit and the [*name of the sponsoring organization*]?

What kind of resources or in-kind supports did the [*name of the sponsoring organization*] provide? Other external partners? What resources or supports were lacking?

Staffing

What professions are represented in the MRC unit? What professions or skill sets does the unit need?

Has the size of the MRC unit been adequate? Does the unit need to be bigger/smaller?

Recruitment and Retention

What was the level of turnover of MRC volunteers during the demonstration period? What were the major reasons volunteers dropped out?

- Meeting time/location
- Time commitment
- Left the area
- Skills and interest not compatible with MRC goals

Community Health Deployments

What types of community health activities were carried out by the unit during the demonstration period?

How could the MRC units have been more effectively utilized to address public health needs in the community?

MRC Partnering Agency

Introduction

Before we get started I'd like to tell you a little bit about the Assessment of the MRC Demonstration Project and the purpose of our interview today. In FY 2002, the Office of the Surgeon General initiated the MRC Demonstration Project to facilitate the formation of local units whose membership would include volunteer medical and public health professionals who could respond to local emergencies and disasters, as well as address broader public health needs in their communities. RTI International, a nonprofit research firm based in North Carolina, has been contracted to evaluate the MRC Demonstration Project from its period of implementation from 2002 to 2005, assess its feasibility and potential for replication, and provide recommendations for enhancing the program overall.

As part of this evaluation, we are conducting case studies of six MRC units that represent the diversity of the MRC Program with regards to unit size, housing institution, emergency response experience, and public health initiatives. For the case study we will be conducting key informant interviews with up to six stakeholders from each unit. Unit stakeholders include MRC unit volunteers, the MRC coordinator, the MRC state or regional coordinator, and representatives from MRC unit partner institutions (for example hospitals, health departments, churches, or universities). The focus of the case studies will be to provide lessons learned and best practices in the functional areas of internal coordination, external coordination, and volunteer relations during the demonstration period.

In order to accurately document your comments, we'd like to tape record the interview. These tapes are for our own note-taking purposes only and will be destroyed at the end of the project. You will also have an opportunity to review and edit a written summary of our interview. Do we have your permission to tape the interview?

[IF OK, PROCEED, IF NO, JUST TAKE NOTES]

We will be preparing a report that presents the findings from all the key informant interviews from each case study. In order to protect your confidentiality, your comments will in no way be linked to your name. We may, however, use a generic description of the source of a comment such as "a unit volunteer." As this is a voluntary interview, you can decline to answer any questions or end this interview at any time with no consequences to you.

Before we begin, do you have any questions about the project or this interview?

Stakeholder Background

To begin, we'd like to learn a little about you. Could you briefly describe your history and involvement with the (*insert unit name*) MRC unit?

Unit Genesis/Design/Purpose

What was your understanding of the goal or purpose of the MRC unit during the demonstration period? Do you think that initial goal or purpose changed over time?

Was the MRC duplicative of other local preparedness and response initiatives or complementary? What unique need(s) did it fulfill?

External Coordination

Can you describe for me more specifically how you worked with or interacted with the MRC unit during the demonstration period?

- What kinds of activities did you engage in?
  - Training and technical assistance?
  - Info sharing?
  - Strategic planning?
- How often did you meet and for what purpose?
- How formal was your relationship? Did you have an MOA or other contractual alliance?

Emergency Deployments

The next of set of questions deals with the MRC unit's activities involving emergency deployments. But before we continue, we'd like to get your definition of "surge capacity." As you know this term means different things to different people. So what does the term surge capacity mean to you?

To the extent that you know, what kinds of emergency deployments did the MRC unit support during the demonstration period? Please describe.

[*IF DEPLOYED*] Did your agency work with the MRC during the emergency deployment? If so, what helped or hindered that process?

[*IF DEPLOYED*] How did you communicate with the MRC (or volunteers) during emergency deployments? If so, what helped or hindered communication?

[*IF DEPLOYED*] How well do you think the MRC volunteers performed in their deployment? What if anything could have been improved?

Did your agency facilitate or become involved in training activities designed to orient volunteers in emergency deployment and activation protocols? If yes, what was your overall opinion of those activities?

- Was there sufficient participation?
- Did the volunteers build their capacity to respond effectively?
- Could these activities have been improved?

Overall, how well do you think the MRC Program was integrated into the state and local emergency preparedness and response plans? Did that level of integration change over time?

Organizational Factors

What were the skills and background of the MRC leaders in place during the demonstration period? Were those skills/background adequate? Do you think the leadership could have been improved?

What kind of resources or in-kind supports did the MRC receive from your agency?

What resources or supports do you think were lacking, generally speaking?

Community Health Deployments

Do you know if the MRC was engaged in any community health activities during the demonstration period? If so, please describe.

[IF COMMUNITY DEPLOYED] Did your agency work with the MRC on any of these community health activities?

Could the MRC units have been more effectively utilized to address public health needs in the community? If so, how?

Wrap-Up

Overall, how successful do you think the MRC unit was in achieving its stated goals and objectives? Why?

If this MRC could start over, should it have done anything differently?

MRC Volunteer

Introduction

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In order to accurately document your comments, we'd like to tape record the interview. These tapes are for our own note-taking purposes only and will be destroyed at the end of the project. You will also have an opportunity to review and edit a written summary of our interview. Do we have your permission to tape the interview?

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We will be preparing a report that presents the findings from all the key informant interviews from each case study. In order to protect your confidentiality, your comments will in no way be linked to your name. We may, however, use a generic description of the source of a comment such as "a unit volunteer." As this is a voluntary interview, you can decline to answer any questions or end this interview at any time with no consequences to you.

Before we begin, do you have any questions about the project or this interview?

Stakeholder Background

To begin, we'd like to learn a little about you. Could you briefly describe your history and involvement with the (*insert unit name*) MRC unit? How long have you been a volunteer with the unit?

Unit Genesis/Design/Purpose

As a volunteer, what was your understanding of the goal or purpose of the MRC unit during the demonstration period? Do you think that initial goal or purpose changed over time?

Emergency Deployments

What, if any, of the emergency deployments did the MRC unit support during the time you were a volunteer? Please describe.

[IF DEPLOYED] How did you communicate with the MRC unit coordinator during emergency deployments? What helped or hindered communication?

[IF DEPLOYED] Did your unit work with other agencies and organizations during this emergency deployment? If so, what helped or hindered that process?

How well did you and the other volunteers understand activation protocols and local response plans for emergency deployment? What kinds of orientation activities and drills did you participate in to learn activation protocols? If yes, what was your overall opinion of those activities?

- Was there sufficient participation?
- Did the volunteers build their capacity to respond effectively?
- Could these activities have been improved?

What types of efforts were made to ensure MRC volunteers would have liability coverage in the event of a deployment?

In addition to the MRC, were you a part of other organizations that might have been deployed in the event of an emergency? How would you prioritize between organizations?

Organizational Factors

What were the skills and background of the MRC leaders in place during the demonstration period? Were those skills/background adequate? Do you think the leadership could have been improved?

What was the degree of turnover in leadership positions during the time you were a volunteer? How did this affect the MRC unit?

How often did the MRC unit meet? What was the level of attendance? What contributed to good/poor attendance?

Were you, as a volunteer, ever involved in developing the MRC unit's goals and objectives or other strategic planning activities?

What resources or supports do you think were lacking generally speaking?

Communication Factors

How did the MRC routinely communicate with its volunteers?

- phone
- mail
- e-mail/Web

Staffing

What professions were represented in the MRC unit during the demonstration period? What professions or skill sets did the unit need?

Was the size of the MRC unit adequate? Did the unit need to be bigger/smaller?

Training and Technical Assistance

What kinds of training and technical assistance did volunteers receive? Were they required or optional?

Was the training and technical assistance provided adequate? If not, why and how could it have been more so?

Recruitment & Retention

How did volunteers learn about and become members of the MRC unit during the demonstration period?

What was the level of turnover of MRC volunteers during the demonstration period? What were the major reasons volunteers dropped out?

- Meeting time/location
- Time commitment
- Left the area
- Skills and interest not compatible with MRC goals

Did the MRC do anything special to retain volunteers?

How were you, as a volunteer, recognized for your efforts?

Community Health Deployments

While you were a volunteer, did the MRC engage in and support any community health activities? If so, please describe.

What was the level of interest and participation in these activities among the MRC volunteers?

Do you think the MRC could have been more effectively utilized to address public health needs in the community? If so, how?