

Planning, Preparedness, and Response to H1N1 and Seasonal Influenza

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H1N1 BACKGROUND AND NATIONAL OVERVIEW

Illness associated with the novel influenza A (H1N1) virus is ongoing in the United States. From April 15, 2009 to July 24, 2009, states reported a total of 43 771 confirmed and probable cases of novel influenza A (H1N1) infection. Of these cases, 5011 people were hospitalized and 302 people died. On July 24, 2009, confirmed and probable case counts were discontinued.¹ Due to the widespread nature of the disease, it became increasingly difficult to report each confirmed case of the H1N1 virus. To measure the impact and nature of the disease, the Centers for Disease Control and Prevention developed a method to track the numbers of hospitalizations and deaths related to or caused by H1N1.¹

At the national level, the Office of the Civilian Volunteer Medical Reserve Corps (OCVMRC) used late summer 2009 to prepare and plan for possible response to a large onset of the H1N1 virus in the fall. There was no doubt that volunteers would play an important role in local-, state-, and national-level response efforts to the H1N1 influenza. The OCVMRC sent routine messages to units to maintain situational awareness and keep open lines of communication. This was done through its listservs, presentations, and person-to-person conversations. MRC units were encouraged to update their activity reports on the MRC Web site with their H1N1 and seasonal influenza initiatives, such as call-down exercises, public education on personal and family preparedness, cough etiquette, and proper hand washing.

The OCVMRC developed ways to track, evaluate, and recognize the activities of MRC units through the MRC online database and reports. The information collected was shared with the White House National Security Council staff, senior-level management of the Department of Health and Human Services, partner programs, and in presentations, publications, and other outlets to build awareness of the program, demonstrate the MRC as an asset, and promote the MRC network as a local, state, and national resource.

To recognize the efforts of MRC units and the volunteers who staff them, the OCVMRC sent a certificate of recognition for the unit and thank you letters from the Director, Captain Robert J. Tosatto, and lapel pins for the volunteers. In 2009, nearly 60 000 MRC volunteers from close to 600 units were used in more than 2500 activities related to H1N1.

A page on the MRC national Web site was developed in August 2009 to provide links to resources, examples of MRC activities, and consistent updates from the OCVMRC on national-

level initiatives, meetings, and guidance. It was used during the height of influenza season to keep units informed and educated about the virus and what was being done to combat it at the national level.

Although there was no way to predict what was to come in the influenza season of 2009, the OCVMRC believed it was imperative to do whatever possible to encourage planning and preparedness at the local level. Due to the work ahead of the widespread onset of H1N1 and seasonal influenza, MRC units had the ability to make a strong impact through educating, providing care, and assisting other local responders in their efforts to contain the H1N1 virus. Through partnerships with schools, businesses, local health departments, and others, the MRC used the opportunity to build the resiliency of their communities against all hazards.

(For the latest data and information from the Department of Health and Human Service, visit the general influenza Web site [www.flu.gov] and the Centers for Disease Control and Prevention's H1N1 Web site [www.cdc.gov/h1n1flu]).

LOCAL MRC UNITS' INFLUENZA PLANNING, PREPAREDNESS, AND RESPONSE ACTIVITIES

Established in 2002, the MRC comprises teams of local medical and public health professionals and others without medical or public health backgrounds, who volunteer their expertise to improve their communities' emergency preparedness and response capabilities and strengthen their public health infrastructure. These teams of trained and credentialed volunteers, commonly referred to as MRC units, are organized in response to their community's specific needs and are intended to support, assist, and supplement the resources of existing public health and medical response systems. According to the Office of the Civilian Volunteer MRC, "It had been long recognized that the MRC could play an important role in responding to an influenza pandemic. MRC units, in coordination with local public health officials, had been planning how they could best serve should a pandemic strike their local communities."² In 2009, MRC units played a key role in assisting many local public health agencies and communities across the country to respond to H1N1 and seasonal influenza, underscoring the value of this important volunteer resource. Echoing the sentiments of many local public health officials around the nation regarding the contributions of MRC units to H1N1 response efforts, Dr Adi Pour, director of the Douglas County, Nebraska, Health Depart-

ment, remarked, "The MRC are all heroes to me, especially those that were regulars helping with the H1N1 clinics."²

In September 2009, at the request of the White House National Security Council staff, the OCVMRC queried local MRC units regarding their recent and expected activities related to H1N1 influenza preparedness and response.³ A total of 596 MRC units, about 70% of the MRC units nationwide, responded to this query.³ Local MRC units reported they had participated in the following kinds of activities related to H1N1 influenza preparedness and response³:

- Providing updates to volunteers, partners, and the public—60%
- Encouraging development of personal and family preparedness plans—53%
- Assisting local health departments with response activities—37%
- Reviewing and testing MRC unit activation procedures—36%
- Assisting officials in planning for a potential H1N1 outbreak—34%
- Providing influenza prevention education—34%
- Testing/exercising mass dispensing plans—23%
- Testing/exercising mass vaccination plans—22%
- Other—18%
- None—16%
- Testing/exercising school-based vaccination plans—9%
- Assisting with influenza surveillance activities—9%
- Assisting with respirator fit testing—9%
- Testing/exercising medical surge plans for hospitals—8%
- Testing/exercising medical surge plans for alternate care facilities—6%
- Testing/exercising medical surge plans for health clinics—4%
- Testing/exercising quarantine plans—1%

Activities in the "Other" category included other kinds of training and exercises, call center staffing, volunteer recruiting targeted at H1N1 activities, and mass fatality planning.³

Specific examples of these H1N1 response activities conducted by local MRC units are described in the report *Medical Reserve Corps Units and H1N1 Influenza Related Activities—September 2009*.³

CONCLUSION

One year later, MRC units continue to prepare for response to pandemic and seasonal influenza. A recent query of the planned emergency preparedness and response activities of MRC units (869 of 881, or 98.6%, of MRC units reporting) indicated that nearly 87% (86.77%) are involved in pandemic influenza planning.⁴ Similarly, many MRC units are engaged in activities that

may be related directly to pandemic influenza preparedness and response, such as Points of Dispensing operations (99.65%), activities related to the Strategic National Stockpile (70.89%), activities associated with alternate care sites/facilities (62.03%), preparedness information campaigns (66.86%), and hospital surge capacity activities (53.16%).⁴

Since 2002, in nearly 900 communities across the United States, MRC units have been formed to supplement the existing public health, medical, and emergency services infrastructure. (As of this writing, there are 881 MRC units in the United States. MRC units have been established in all 50 states, the District of Columbia, Puerto Rico, Guam, Palau, and the US Virgin Islands. The number of MRC units changes often; see <http://www.medicalreservecorps.gov/FindMRC.asp> for current information.) The majority of MRC units were involved in planning and preparedness activities for pandemic influenza and provided critical support and assistance to their communities during the H1N1 influenza outbreak of 2009. Whether staffing Points of Dispensing operations, assisting with Strategic National Stockpile logistics, supporting hospital surge capacity, or providing emergency public information and risk communication, MRC units have demonstrated their value in helping to make the communities they serve better prepared and more resilient.

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REFERENCES

1. Centers for Disease Control and Prevention. Questions and Answers: Flu-Related Hospitalizations and Deaths in the United States from April 2009–January 30, 2010. http://www.cdc.gov/H1N1flu/hosp_deaths_ahdra.htm. Published April 16, 2010. Accessed May 7, 2010.
2. Office of the Civilian Volunteer Medical Reserve Corps. *Untitled draft of Medical Reserve Corps 2009 H1N1 report*. Washington, DC: Medical Reserve Corps; 2010:3.
3. Office of the Civilian Volunteer Medical Reserve Corps. *Medical Reserve Corps Units and H1N1 Influenza Related Activities September 2009*. http://www.medicalreservecorps.gov/file/SwineFlu/MRC_Units_H1N1_Flu_Activities.pdf. Accessed April 26, 2010.
4. Office of the Civilian Volunteer Medical Reserve Corps. Results of Query of Unit Information Report Regarding Percentages of MRC Units Nationwide Engaged in Emergency Preparedness and Response Activities. <http://www.medicalreservecorps.gov/UnitInfoReport.asp>. Accessed April 26, 2010.