



Emergency preparedness in rural communities

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Introduction

An emergency preparedness (EP) plan is imperative for rural communities, as many have limited resources when compared to urban areas, including workforce, finances, distribution, and access to care (Rural Health Information Hub, 2022). However, these limitations should not define a community's ability to respond to an emergency. Unique assets within rural communities such as tightly knit social networks may act as a catalyst to support EP capabilities (RHIfhub, 2022).

The COVID-19 pandemic has presented many challenges in rural communities and exacerbated resource disparities, such as access to care and broadband within the rural emergency preparedness ecosystem (RHIfhub, 2022). Lessons learned from the COVID-19 pandemic, such as the development of trust, communication of information, timeliness of response, and impact of government policy decisions, should be acknowledged and discussed to prompt growth and improve capacity to respond in future EP scenarios (Craven & Wilson, 2022).

Many rural communities rely heavily on reimbursements from Centers for Medicare & Medicaid Services (CMS) given the high percentage of rural residents covered by Medicaid and Medicare. This is important as many rural health care providers must comply with CMS emergency preparedness requirements to be eligible providers. Other rural health care providers who receive Medicare and Medicaid reimbursement, such as hospitals, home health agencies, and nursing homes, must also comply with CMS EP requirements. The purpose of the requirements is “to establish national emergency preparedness requirements to ensure adequate planning for both natural and man-made disasters and coordination with federal, state, tribal, regional, and local emergency preparedness systems” (Centers for Medicare & Medicaid Services, 2021).

This policy brief aims to address areas of opportunity for EP within rural communities with special consideration to CMS requirements and lessons learned from the COVID-19 pandemic.

Statement of the issue: Key considerations

Community involvement

Community involvement is key to the success of EP strategies, especially in rural areas. Diversity among stakeholders, decentralization of local health care systems, geographic location, and availability of resources contribute to emergency preparedness challenges. Coalitions are an excellent evidence-based tool to promote community involvement and cooperation between partners (Jason, Glantsman & O'Brien, 2019). While coalitions might typically act in a responsive manner following an emergency, they may also be used to build EP capabilities. Local coalitions can be incentivized by defining and analyzing processes associated with collaboration. Examples of this include coalition membership, participation in tabletop exercises, risk assessments, and development of planning documents, which include expected outcomes for successful collaboration in the event of a disaster (Carrier et. al, 2012). Broad, multisector participation is important to build capacity. Leaders from health care, public health, faith, education, government, and the broader community must all work to effectively execute a practical, effective, and widely applicable model of capacity building at multiple levels, especially within



the realm of EP (McCabe et. al, 2013). Outside of coalition-based efforts, the broader community should be included in EP activities to build up capabilities and trust and ensure sustainability.

Promoting a rural culture of readiness

EP professionals and partner agencies should understand local needs, concerns, and perceptions to create and sustain partnerships both before, during, and after a disaster (Kapucu, Hawkins & Rivera, 2013). Rural communities often have less diversified economies with less financial support for disaster planning, response, or recovery compared to urban areas (RHHub, 2022). Rural communities also may encounter challenges due to smaller pools of response personnel and insufficient communication systems compared to urban communities (Janssen, 2006). Therefore, it is important to focus on the strengths of the community, such as existing assets (social capital, innovative spirit, and natural resources) to maximize the impact of the response (Meit et. al, 2018).

It is also important to recognize that just as rural areas differ from urban areas, rural communities are not all the same. As such, community assessments for disaster preparedness must be uniquely tailored to each community. The vulnerabilities of rural communities should not hinder their ability to respond and recover if they have the skills and processes to build an effective plan that meets their needs (Prelog & Miller, 2013). High levels of trust and familiarity among community members and those who work alongside them have been shown to facilitate effective disaster response and recovery (Aldrich, 2012). Building relationships and trust within and across rural communities will improve the capacity and capability of rural residents to effectively respond in an EP scenario.

Communication in rural

Communication is a key consideration in EP. Sharing a message, coordinating a response, and ultimately saving lives requires the use of mediums such as telephone and broadband, especially in rural communities. As recently as 2021, four of the five counties with the lowest levels of broadband access in the United States — below 40 percent — are in the country's most rural areas (Pollard & Martinez, 2021). Additionally, cross-agency communication drills may be helpful in testing communication capacity in the event of an emergency. Efforts should focus on building up access to communication infrastructure to counteract barriers to receiving accurate and timely information, such as access to transportation and socioeconomic status.

Training of rural health professionals and community residents

To test preparedness, functional exercises are often used to evaluate command staff, identify areas for improvement, and advance regional collaboration among response partners across organizations (Obaid et. al, 2017). Hands-on disaster training has been shown to improve competencies and outcomes for health care providers (Brunero, Dunn & Lamont, 2021). Stretched resources and negative margins create barriers for testing, training, and executing disaster exercises for rural communities and critical access hospitals (Rural Health Information Hub, 2021). A cost-effective strategy to improve competencies may be to utilize a state or community-specific, multi-disciplinary, computer-modeled training course or plug-and-play toolkit programs that include interdisciplinary functional training (Glow et. al, 2013). Additional applications of the technology could be beneficial to sustain competence in disaster skills, coordinate medical care,



leverage community resources, and coordinate community-wide efforts across agencies (Hunt, Bonham & Jones, 2011).

Additional interventions

Community health workers (CHW) are effective in improving health outcomes and can perform a wide range of duties, such as connecting people with health care and community resources (Lehmann & Sanders, 2007). CHWs act as a bridge between community members and health care systems (Lehmann & Sanders, 2007). These CHW roles may be vital in rural disaster planning, recovery, and response. Guidelines for CHWs in rural disaster scenarios would be helpful and facilitate increased engagement of residents in disaster preparedness programming, thereby increasing capacity. Programs such as Stop the Bleed have been successfully implemented across the nation using general community training and provide an excellent example of improving lay-person health care skills (Bleeding Control, 2018 & Villegas et. al, 2020). Increasing the capacity and skills of CHWs around EP may prove an effective strategy to relay EP information and skills to the broader community.

Research

Our knowledge of the interplay of rural populations and effective disaster response is insufficient to fully inform providers and policymakers about appropriate management or allocation of resources during rural disasters. COVID-19 has had a strong impact on the EP landscape, and research is likely to become more widely available in the future. To address this gap, rural community voices should be prioritized in guiding future research to improve the knowledge base of the field and strengthen rural EP.

Policy recommendations

- Support the development of disaster plans that address the unique culture of rural communities.
- Support development and funding for multi-sector coalitions in rural communities to create a community-focused plan with input from all stakeholders that maximizes local resources and encourages collaboration with neighboring urban communities.
- Support policies that address the critical need for a robust communication infrastructure (phone, internet, broadband, and telemedicine capabilities) to make disaster response in rural communities more effective.
- Support policy and funding to improve the education and multidisciplinary training of rural health care workers to collaborate with local and state organizations and residents.
- Support best practices and innovative models that encourage rural residents to actively participate in disaster planning, response, and recovery.
- Prioritize research and outcomes metrics of EP exercises, EP response, and post-disaster assessment for recovery in rural communities.

Recommended actions

Support the passage of the PREVENT Pandemics Act and advocate for rural-specific carveouts addressing the above-mentioned policy priorities, including topics related to 1) public health and medical preparedness and response coordination; 2) addressing social determinants of health and

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improving health outcomes; 3) improving recruitment and retention of the frontline public health workforce; 4) awards to support community health workers and community health; 5) improving public health emergency response capacity; 6) centers for public health preparedness and response.

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