



TRACIE

HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

Rural Disaster Health
Topic Collection
6/19/2017

Topic Collection: Rural Disaster Health

In 2016, the Director of the U.S. Census Bureau claimed that rural areas covered 97% of the nation's land area but contained 19.3% of the population (approximately 60 million people). Rural areas are served by a variety of healthcare facilities and practitioners who face specific challenges associated with workforce and other resource shortages, socioeconomic factors that add to resident health risks, and public health issues that often compete with the ability to plan for and respond to natural and human-caused events. Tribal communities (many of which are located in rural areas) have the autonomy to respond to and manage incidents that occur on their lands. These resources highlight guidance for and lessons learned by healthcare practitioners who serve rural and tribal communities.

Planners may also wish to access several other related ASPR TRACIE Topic Collections for more information. The [Access and Functional Needs](#) Topic Collection helps ensure that planning before an incident occurs is inclusive of the whole community. [Ambulatory Care and Federally Qualified Health Centers](#) highlights the roles that clinics, community health centers, mental/behavioral healthcare providers, federally-qualified health centers, private physician offices, and other outpatient facilities play in disaster response by addressing the needs of patients with both acute and chronic conditions. The [Alternate Care Sites](#) Collection highlights recent case studies, lessons learned, tools, and promising practices for developing and activating these sites. And the [Virtual Medical Care Topic Collection](#) sheds light on the recent increase in the use of virtual medical care/platforms (e.g., call centers and web- or telephone-based triage and treatment systems) to coordinate care and provide remote access to specialty care and assessment (e.g., trauma, stroke, and psychiatric) which can be leveraged during disasters to broaden access to specialty consultation (e.g., for burn injuries or pediatric patients). Access all [comprehensively developed Topic Collections](#) for general emergency operations planning and information specific to facility type and hazard.

Each resource in this Topic Collection is placed into one or more of the following categories (click on the category name to be taken directly to that set of resources). Resources marked with an asterisk (*) appear in more than one category.

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Must Reads

Fisher, S., Biesiadecki, L., and Schemm, K. (2014). [Responding to Medical Surge in Rural Communities: Practices for Immediate Bed Availability. National Association of County and City Health Officials.](#)

This report highlights the promising practices being used by healthcare coalitions to plan and increase immediate bed availability in rural communities.

Institute of Medicine. (2011). [Improving Rural Mass Casualty Response in the United States.](#) Chapter 7 of Preparedness and Response to a Rural Mass Casualty Incident: Workshop Summary.

These workshop proceedings discuss several aspects of rural mass casualty planning and response: rural health grants; Medicare reimbursements; funding sources and transportation improvements; the lack of consistent funding sources; and the role of government (including leadership, workforce, and education that can help responders train and prepare for mass casualty incident in rural locations).

Meit, M., Briggs, T., and Kennedy, A. (2008). [Urban to Rural Evacuation: Planning for Rural Population Surge.](#)

The authors conducted a literature review and a quantitative analysis of survey data to assess the likelihood of urban evacuation to rural areas and to provide recommendations for rural planning and response. The last section of the report contains a set of policy and planning recommendations.

Rural Disaster Resilience Planning. (n.d.). [Rural Disaster Resilience Planning.](#) (Accessed 5/16/2017.)

While it does not include health or medical information, this Canadian-based website can serve as a planning tool for those working in rural communities. It includes six tabs with templates, activities, checklists, and other resources that can help users better understand their community resilience resources and plan accordingly.

Rural Domestic Preparedness Consortium. (2016). [Rural Emergency Preparedness and Response Training.](#)

This website provides resources and links to numerous online training courses for rural first responders and healthcare workers. The site also includes a "responder toolbox" which includes links to additional resources.

Rural Health Information Hub. (2016). [Rural Emergency Preparedness and Response.](#)

This webpage toolkit provides answers to frequently asked questions and links to resources specific to rural health preparedness and response.

Critical Access Hospitals

Backer, H. Smiley, D., and Schoenthal, L. (2014). [Implementing HICS Off Hours and at Small/Rural Hospitals](#). Chapter 9 of the Hospital Incident Command System Guidebook.

In this chapter, the authors share how Hospital Incident Command System (HICS) positions can be staffed by smaller/rural hospitals and during non-peak hours. They include steps for combining HICS positions and include a sample form that can be used to track activity throughout the response and recovery phases.

Colorado Department of Public Health & Environment. (2017). [Emergency Preparedness Guidance for Critical Access Hospitals \(CAHs\)](#).

This state-specific guidance highlights how Critical Access Hospitals can interpret and comply with the four components of the CMS Emergency Preparedness Rule.

Dodge, B. (n.d.). [HICS for Small and Rural Hospitals](#). (Accessed 6/12/2017.)

This presentation covers how the Hospital Incident Command System (HICS) can be used by a small hospital, highlights charts and job action sheets; and demonstrates the use of these sheets in an activity.

Illinois Critical Access Hospital Network. (n.d.). [Emergency Preparedness Library](#). (Accessed 6/12/2017.)

The resources on this webpage can help Critical Access Hospital staff learn more about the CMS Emergency Preparedness Rule, continuity of operations planning, Ebola readiness assessment, surge, infection control, and other topics.

Rural Health Information Hub. (2015). [Critical Access Hospitals](#).

This webpage provides links to frequently asked questions and resources specific to critical access hospitals. The information covers many key questions regarding these types of facilities; related emergency preparedness information can also be found on the website.

Education and Training

Center for Preparedness Education. (2017). [CPE Training](#).

This webpage—sponsored by the Creighton University School of Medicine and University of Nebraska Medical Center—includes links to upcoming training sessions and two comprehensive calendars: CPE (state-specific) and NPH (lists nationwide events).

Jones, P., Field, B., Wettschurack, S., et al. (2011). [Emergency Preparedness for Farmers, Ranchers and other Rural Residents with Disabilities](#). National AgrAbility Project.

This webinar is geared towards the farm, ranch, and rural population and the emergency medical providers who serve them. Speakers discuss the challenges unique to rural areas (e.g., the scope and nature of disability in rural areas and basic emergency management issues that may develop for individuals with disabilities living in rural communities).

National Association of State Emergency Medical Services Officials. (2014). [Emergency Medical Services Leadership Education. A State-by-State Compendium of EMS Leadership Development Education](#).

This compendium includes information from a survey of state emergency medical services (EMS) offices, with assistance from their respective Offices of Rural Health, regarding EMS agency leadership education. The authors provide a summary of results and a state-by-state listing of EMS leadership development training for both service and medical directors.

Porth, L., Gatz, J., and Smith, C. (2012). [Building Sustainable Health Care Coalitions in Rural and Small Metropolitan Missouri Communities: HCPHP Webinar Series: Session 13](#).

The speakers in this webinar describe the strategies implemented in Missouri to develop and sustain healthcare coalitions.

Rural Domestic Preparedness Consortium. (2010). [Crisis Management in a Rural School: Webcast](#).

This course can help first responders and rural school staff prepare for and respond to active shooter and hostage incidents. The video includes a moderated panel of subject matter experts discussing a pre-recorded video scenario.

Rural Domestic Preparedness Consortium. (2016). [Rural Emergency Preparedness and Response Training](#).

This website provides resources and links to numerous online training courses for rural first responders and healthcare workers. The site also includes a "responder toolbox" which includes links to additional resources.

Rural Domestic Preparedness Consortium. (2017). [Emergency Operations Plans for Rural Jurisdictions](#).

This 8-hour in-person course can help rural planners develop plans suited to their jurisdictions.

Rural Domestic Preparedness Consortium. (2017). [Isolation and Quarantine for Rural Communities](#).

This self-paced course focuses on the legal and ethical issues associated with isolation and quarantine in rural areas. Students will also learn about communication strategies and isolation and quarantine resources.

*University of Arizona, Mel and Enid Zuckerman College of Public Health, Mountain West Preparedness and Emergency Response Learning Center. (2012). [Public Health Emergency Community Preparedness for Tribal and Rural Communities.](#)

This interactive, scenario-based course can help health professionals personalize local community emergency preparedness plans; identify public health emergency training and education opportunities where they may incorporate community members; identify and partner with response agencies, community organizations and state/local/federal agencies when preparing for and recovering from a public health emergency; and identify methods of maintaining emergency response plans.

Guidance

Busko, J. (2009). [Rural EMS.](#)

While slightly dated, the issues the author shares regarding rural emergency medical systems (EMS), including relevant research, legislation, and regulation still apply to many agencies today. He also lists challenges associated with rural EMS and closes by stating, “Creativity, flexibility, and an innate perseverance are the characteristics that allow the EMS services covering 20% of the population and 80% of the landmass of the United States to provide care in face of innumerable challenges.”

* Fisher, S., Biesiadecki, L., and Schemm, K. (2014). [Responding to Medical Surge in Rural Communities: Practices for Immediate Bed Availability. National Association of County and City Health Officials.](#)

This report highlights the promising practices being used by healthcare coalitions to plan and carry out immediate bed availability in rural communities.

Institute of Medicine. (2011). [Improving Rural Mass Casualty Response in the United States.](#) Chapter 7 of Preparedness and Response to a Rural Mass Casualty Incident: Workshop Summary.

These workshop proceedings discuss several aspects of rural mass casualty planning and response: rural health grants; Medicare reimbursements; funding sources and transportation improvements; the lack of consistent funding sources; and the role of government (including leadership, workforce, and education that can help responders train and prepare for mass casualty incident in rural locations).

Iowa State University, Center for Food Security and Public Health. (2010). [All Hazards: Resources to Help Communities Prepare for Disasters and Other Hazards.](#)

This website provides links to resources that can help residents of rural agricultural communities prepare for and recover from natural, biological, and human-caused threats. Resources for family members, pets, farms/livestock, and businesses are provided under each tab.

McCulley, K. (n.d.). [Utah's Regional Medical Surge Coalitions](#). (Accessed 6/13/2017.)

The author shares information about Utah's Healthcare Coalitions (HCC), and lists barriers to surge planning and how the state is working to overcome them. Subsequent presentations by other HCC representatives focus on HCC governance and sustainability.

McCulley, K. (2008). [Emergency Planning Considerations for Rural and Frontier Community Health Centers](#).

The author shares: an overview of Utah's community health centers (27 sites; 16 are rural or frontier); the role they play as sole medical providers; how they identify and address emergency planning priorities; and lessons learned from local events.

National Association of State EMS Officials. (2011). [Rural Highway Mass Casualty Guidelines: Resources for State and Local Officials](#).

The authors provide three guidelines for state and local officials to consider when planning for mass casualties that occur on rural highways: evaluate emergency medical system readiness; prepare to quantify resources on a geographic basis; and engage and educate partners.

National Rural Health Association. (2011). [National Rural Health Association Policy Brief: Rural Health Preparedness](#).

This policy brief lists several guiding principles for rural emergency medical preparedness that can help ensure effective response to all types of hazards.

Trockman, S., Meit, M., and Stebbins, S. (n.d.). [Rural Emergency Preparedness. What All Rural Responders Must Know About Public Health Emergencies](#). (Accessed 6/14/2017).

This textbook—while focused on the State of Pennsylvania—comprehensively covers many of the components associated with rural emergency preparedness. Information is presented in seven chapters: Emergency Public Health Functions; Public Health and Emergency Management; Mass Care; Risk and Crisis Communication; Powers and Authorities; Disaster Mental Health Issues; and Protecting Yourself, Your Family, and Others from Infectious Diseases.

U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (2012). [Chapter 5: The Healthcare Coalition Emergency Management Program: Implementing Sustainable Solutions](#).

This chapter includes sections on developing the healthcare coalition (HCC), establishing the HCC emergency management plan, and programmatic issues related to HCCs. The fourth section covers reasons and steps for conducting a hazard vulnerability analysis.

Lessons Learned

Chandra, A. and Aten, J. (2012). [Developing Resilient Rural Communities: Lessons Learned and New Strategies for Emergency Preparedness and Beyond.](#)

This PowerPoint presentation highlights the relationship between rural community resilience and public health, related challenges and strategies for addressing them, “levers” or means of achieving community resilience (e.g., education, self-sufficiency, and education), and activities that promote community wellness. The speakers concluded the presentation with a section on developing a rural community resilience public health action plan.

Clements, B. (2013). [Public Health Response to the Fertilizer Plant Explosion in West, Texas.](#)

The speakers in this hour-long webinar discuss the West, TX public health and hospital communities’ response to the April 2013 fertilizer plant explosion. In particular, they share how emergency preparedness program capabilities were successfully operationalized during the response, and list lessons learned.

* Cliff, B. (2007). [A Study of Disaster Preparedness of Rural Hospitals in the United States.](#) Western Michigan University. Dissertations.

The author used a model of disaster preparedness to examine seven elements of preparedness. She also examined risk perception and HRSA funding. She categorized rural hospitals as "moderately prepared overall" with high preparedness in education/training isolation/decontamination. Respondents perceived higher risk from natural disasters and vehicular accidents than from human-caused incidents.

Eighmy, M., Hall, T., Sahr, E., et al. (2012). [The Extension Service and Rural/Frontier Disaster Planning, Response, and Recovery.](#) Journal of Extension. 50(4).

The authors of this study examined the response of Extension Service personnel to flooding events in eight rural/frontier counties in North Dakota. The authors discussed gaps in existing disaster training program and clarified the role of the Extension Service in emergency planning, with the goal of preparing Extension staff to better respond to the specific needs of rural citizens.

* Fisher, S., Biesiadecki, L., Schemm, K. (2014). [Responding to Medical Surge in Rural Communities: Practices for Immediate Bed Availability.](#)

The focus of this report is on immediate bed availability in rural healthcare settings. The authors conducted a literature review and synthesized data collected during interviews

with representatives in four areas: Mississippi, Southwest Utah, Virginia, and Southeast Texas.

Gursky, E.A. (2004). [Hometown Hospitals: The Weakest Link? Bioterrorism Readiness in America's Rural Hospitals](#). Center for Technology and National Security Policy.

Though this report is somewhat dated, the author shares findings from case studies of four healthcare facilities located in rural areas to highlight their challenges associated with bioterrorism and disease outbreaks. She concludes the report with recommendations.

Heideman, M. and Hawley, S. (2007). [Preparedness for Allied Health Professionals: Risk Communication Training in a Rural State](#). (Abstract only.) Journal of Allied Health. 36(2): 72-6.

This article is a summary of a workshop on risk communication and message mapping in Kansas. The authors emphasize that in rural states, health workers should be able to communicate to the public from both a health and first responder perspective.

Institute of Medicine of the National Academies. (2011). [Preparedness and Response to a Rural Mass Casualty Incident: Workshop Summary](#).

Healthcare facilities in rural areas can be particularly challenged during a mass casualty incident (MCI) as local emergency medical service providers may be overwhelmed by 911 responses and unable to assist with patient forward movement. This summary reviews some of the contributing issues and potential solutions and highlights a broader range of issues for rural MCI response.

Lutz, A. (2009). [Weathering the Storm: Small Hospitals Resilient to Natural Disaster](#). Rural Roads. 7(2): 6-9.

The author tells the stories of rural hospital staff from various areas of the country whose facilities and communities experienced flooding conditions in 2008. Those interviewed share promising practices and lessons learned.

Makulowich, G. (2013). [Tornado Victims Benefit from Information System that Helped Doctors Quickly Access Medical Records](#). Rural Roads. 11(3): 30-34.

The author explains how the Moore Medical Center (which was destroyed by the May 20 tornado) treated, transferred, and tracked incoming and existing patients using electronic medical records.

Manley, W.G., Furbee, P.M., Coben, J.H., et al. (2006). [Realities of Disaster Preparedness in Rural Hospitals](#). (Abstract only.) Disaster Management and Response. 4(3): 80-87.

The authors examined rural hospital emergency departments' experience with and frequency of certain incidents.

Mason, W., Randolph, J., Boltz, R., et al. (2014). [Rural Coalition Development and Immediate Bed Availability](#).

This 90-minute webinar reviews the unique challenges of building and operating healthcare coalitions in rural settings. Speakers discuss policy and partnership lessons learned from a disaster in Arkansas; bed surge and mass fatality support and coordination best practices from a Greyhound bus disaster in Pennsylvania; Community Assessment Tool (CAT) implementation in Nebraska; and rural healthcare coalition development strategies used in Missouri.

National Association of Community Health Centers. (2013). [Health Centers: Assistance Before, During, and After Emergencies and Disasters](#).

This resource provides examples of ways health centers have assisted their communities before, during and after emergencies and disasters.

Rossberg, S., Thompson, C., and Williams, L. (2015). [Addressing Surge in Rural and Frontier Communities](#). (Free registration required.)

In this webinar, speakers from Montana, Utah, and Washington share what they have learned from medical surge exercises and actual events in low population density areas.

Rural Health Information Hub. (2016). [Rural Emergency Preparedness and Response](#).

This webpage toolkit provides answers to frequently asked questions and links to resources specific to rural health preparedness and response.

Terry, D., Lê, Q., Nguyen, U., et al. (2015). [Workplace Health and Safety Issues Among Community Nurses: A Study Regarding the Impact on Providing Care to Rural Consumers](#).

The objective of the study was to investigate the types of workplace health and safety issues rural community nurses encounter and the impact these issues have on providing care to rural consumers.

*U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (2017). [HPP In Action: Stories from the Field](#).

Many of the posts on this webpage include lessons learned from health practitioners and emergency managers in rural areas and American Indian/Alaskan Native communities.

United States Global Change Research Program. (2016). [Following a Devastating Tornado, Town and Hospital Rebuild to Harness Wind Energy](#). U.S. Climate Resilience Toolkit.

This article highlights how the city of Greensburg (KS) and its hospital Kiowa County Memorial recovered and rebuilt after a 2007 tornado that damaged or destroyed more than 90% of the structures in the community.

Valcik, K. (2015). [Examining Community Paramedicine in Rural West Virginia](#).

The author of this white paper examines the ways in which community paramedicine is evolving in rural West Virginia and becoming a model of community-based health care. Paramedicine may provide significant options when EMS and hospitals are overloaded.

Plans, Tools, and Templates

Cocopah Indian Tribe. (2016). [Cocopah Launches Emergency App](#).

This short video describes the app launched by Cocopah Emergency Management. The application provides real-time data on weather, disasters, diseases, hazardous materials, and other critical information that can help resident and healthcare providers prepare for and stay current during any type of crisis.

Dvorak, G. and Williamson, B. (Eds.). (2011). [All-Hazards Preparedness for Rural Communities](#). The Center for Food Security & Public Health.

This guide can help emergency planners, families, and individuals who live in rural communities prepare businesses take the necessary steps to prepare for, respond to, and recover from natural disaster and human-caused events. While not geared towards healthcare practitioners, it does include threat-specific information templates, checklists, and links to related resources for families and businesses.

Rural Disaster Resilience Planning. (n.d.). [Rural Disaster Resilience Planning](#). (Accessed 5/16/2017.)

While it does not include health or medical information, this Canadian-based website can serve as a planning tool for those working in rural communities. It includes six tabs with templates, activities, checklists, and other resources that can help users better understand their community resilience resources and plan accordingly.

Rural Health Information Hub. (2017). [Am I Rural? –Tool](#).

Users can enter their address into this online tool to determine whether their location is classified “rural” and if it qualifies for certain programs.

Small Water Supply. (2015). [Templates for an Emergency Plan](#).

This webpage includes links to response plan templates and related resources that can be used to plan for, respond to, and recover from an incident that affects the water supply.

USA Center for Rural Public Health Preparedness, Texas A&M Health Science Center School for Rural Public Health. (2007). [Partnering to Achieve Rural Emergency Preparedness: A Workbook for Healthcare Providers in Rural Communities](#).

This workbook provides an interactive, user-friendly tool to assist rural health clinics and rural-based hospitals, community health centers, and migrant health centers create/update all-hazards emergency response plans.

Ware County Board of Health. (2011). [Risk Communication in Rural Settings](#).

Healthcare practitioners in rural areas can use the strategies in this toolkit to communicate with their community during a variety of disasters including natural, biological, chemical, radiological, and mass vaccination/medical events.

Research

* Cliff, B. (2007). [A Study of Disaster Preparedness of Rural Hospitals in the United States](#).

The author used a model of disaster preparedness to examine seven elements of preparedness. She also examined risk perception and Health Resources and Services Administration funding. She categorized rural hospitals as "moderately prepared overall" with high preparedness in education/training isolation/decontamination. Respondents perceived higher risk from natural disasters and vehicular accidents than from human-caused incidents.

Kapucu, N., Hawkins, C., and Rivera, F. (2013). [Disaster Preparedness and Resilience for Rural Communities](#). (Abstract only.) *Risk, Hazards, & Crisis in Public Policy*. 4(4): 215-233.

The authors describe findings from surveys and focus groups with stakeholders in the Central Florida region, with a focus on the characteristics of disaster management in rural communities and strategies for improving disaster resilience in these communities.

Surge Planning (from Urban to Rural Areas)

Meit, M., Briggs, T., Kennedy, A., et al. (2007). [Spontaneous Evacuation Following a Dirty Bomb or Pandemic Influenza: Highlights from a National Survey of Urban Residents' Intended Behavior](#). NORC Walsh Center for Rural Health Analysis.

The authors highlight results from a national survey that measured urban residents' plans to evacuate after two potential disasters. Responses differed by several variables; the potential effect of this movement on infrastructure in rural communities (including the healthcare system) is significant and plans must be adjusted.

Meit, M., Briggs, T., and Kennedy, A. (2008). [Urban to Rural Evacuation: Planning for Rural Population Surge](#).

The authors conducted a literature review and a quantitative analysis of survey data to assess the likelihood of urban evacuation to rural areas and to provide recommendations for rural planning and response. The last section of the report contains a set of policy and planning recommendations.

Meit, M., Redlener, I., Briggs, T., et al. (2011). [Rural and Suburban Population Surge Following Detonation of Improvised Nuclear Device: A New Model to Estimate Impact](#). Disaster Medicine and Public Health Preparedness. 5. Supplement 1.

The authors describe a “push-pull” model that estimated the evacuation from Manhattan to counties within a 150 mile radius after a nuclear detonation. This model predicted that arriving evacuees could increase the population needing services by between 50 and 150 percent.

University at Albany, State University of New York, School of Public Health and Health Professions, Center for Public Health Preparedness. (2007). [Mass Evacuation to Rural Communities II](#).

The speakers in this webinar highlight concerns expressed by leaders in rural communities—areas to which large numbers of evacuees might travel in a disaster. Specific concerns included sustaining the water supply, septic systems, and receiving and treating people with special needs. One speaker shared lessons learned from a tabletop exercise, particularly managing self-deployed volunteers.

Tribal Health Resources

Barnard, J. (2015). [Responding to Public Health Emergencies on Tribal Lands: Jurisdictional Challenges and Practical Solutions](#). Yale Journal of Health Policy, Law, and Ethics. 15(2).

The author highlights several critical issues that may challenge government representatives responding to a public health emergency on tribal lands. He reviews several intergovernmental agreements and provides suggestions for creating similar documents.

Bryan, R., McLaughlin Schaefer, R., DeBruyn, L., and Stier, D. (2009). [Public Health Legal Preparedness in Indian Country](#).

This article describes the how tribal laws impact public health preparedness. The study of 70 tribal codes found 14 (20%) had no clearly identifiable public health provisions and the remaining codes were rarely well-integrated or comprehensive.

Caspi, H. (2013). [Video Vitalizes Tribal Emergency Preparedness](#). EMSWORLD.

The author highlights the video “Strength and Resiliency: Emergency Preparedness for Tribal Leaders and Program Directors—Your Roles and Responsibilities” and provides an overview of tribal emergency preparedness.

Federal Emergency Management Agency. (n.d.). [Ready Indian Country](#). (Accessed 5/12/2017.)

The goal of Ready Indian Country is to collaborate with tribal governments to build emergency management capability and partnerships to ensure continued survival of tribal nations and communities. The website provides brochures, public service announcements, and poster resources.

Federal Emergency Management Agency. (n.d.). [Tribal Course Descriptions](#). (Accessed 5/15/2017.)

These courses can help people who live in or work in/with tribal communities prepare for, respond to, and recover from all types of hazards.

Fronk, M. (2013). [Training Video About Emergency Response on Tribal Lands Released](#).

The author is one of the experts featured in the video and shares his experience with the production process and tribal preparedness in general.

Granillo, B., Renger, R., Wakelee, J., and Burgess, J. (2010). [Utilization of the Native American Talking Circle to Teach Incident Command System to Tribal Community Health Representatives](#). (Abstract only.) *Journal of Community Health*. 35(6): 625-634.

The authors discuss the use of the Native American Talking Circle format as a culturally appropriate method to teach the Incident Command System (ICS), emphasizing that this format has been well received. The authors also discuss limitations of their evaluation and strategies for improving future research efforts.

Groom, A., Cheyenne, J., LaRoque, M., et al. (2011). [Pandemic Influenza Preparedness and Vulnerable Populations in Tribal Communities](#). *American Journal of Public Health*. 99:S2.

The authors highlight “trends of influenza in Indian Country,” and list potential issues that may increase some members of this population’s vulnerability, such as chronic disease and challenges associated with elderly community members. The authors share information on pandemic influenza preparedness resources available to tribal leaders and their partners in state and local health departments, academia, community-based organizations, and the private sector.

Heritage Preservation. (2010). [Getting Ready in Indian Country: Emergency Preparedness and Response for Native American Cultural Resources](#).

This document provides emergency preparedness considerations specifically for Native American interests. It has three parts: (1) a brief report exploring the issues and making recommendations to address those issues; (2) an “Inventory of Disaster Resources for Cultural Heritage;” and (3) Preparedness Discussion Questions designed to be shared within and among tribal nations. Taken as a whole, the report and accompanying tools are intended to advance emergency preparedness, stimulate discussion, and inspire new initiatives in American Indian/Alaska Native (AI/AN) communities.

Mountain West Preparedness & Emergency Response Learning Center. (2016). [Strategies for Effectively Working with American Indian and Alaskan Native \(AI/AN\) Communities](#).

This report can help emergency health responders better understand: the history of American Indian and Alaskan Native (AI/AN) communities; how AI/AN governments are structured; strategies for communicating and establishing trust with AI/AN community representatives; the importance of soliciting tribal consultation; and key definitions that apply to AI/AN communities. Several helpful appendices are included.

National Library of Medicine. (2016). [People & Traditions – Tribal Preparedness for Emergencies and Disasters](#).

This site provides a compilation of resources by the National Library of Medicine related to tribal preparedness for emergencies.

National Tribal Emergency Management Council. (2011). [National Tribal Emergency Management Council](#).

This webpage includes links to information and best practices regarding disasters affecting Indian Country.

Peate, W. and Mullins, J. (2008). [Disaster Preparedness Training for Tribal Leaders](#). Journal of Occupational Medicine and Toxicology. 3:2.

The authors describe a 1.5 day training session delivered regionally and built upon themes such as tribal sovereignty, and the understanding that preparedness is not a new concept for Native Americans. Three modules covered the roles of public health, bio-terrorism and public health, and community emergency preparedness and response. The authors list challenges to implementing the training and recommendations for refining the curriculum.

U.S. Department of Health and Human Services, Office of the Assistant Secretary of Preparedness and Response. (2015). [American Indian & Alaskan Native Disaster Preparedness Resource](#).

This webpage includes links to emergency preparedness resources that can be helpful to members of American Indian and Alaskan Native communities, including those that serve them.

*U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (2017). [HPP In Action: Stories from the Field](#).

Many of the posts on this webpage include lessons learned from health practitioners and emergency managers in rural areas and American Indian/Alaskan Native communities.

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Disaster Technical Assistance Center. (2014). [Tips for Disaster Responders: Cultural Awareness When Working in Indian Country Post Disaster](#).

This tip sheet for behavioral health responders outlines the types of traumatic events that can occur in Indian Country and examples of effective response techniques such as use of traditional teachings and talking circles.

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Disaster Technical Assistance Center. (2014). [Tips for Disaster Responders: Understanding Historical Trauma When Responding to an Event in Indian Country](#).

This tip sheet for responders provides a description of the effects of historical trauma on Native Americans, and tips for how responders can respond effectively to a disaster or other traumatic event in Indian Country.

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. (2009). [Cultural Card: A Guide to Build Cultural Awareness: American Indian and Alaska Native](#).

The purpose of this guide is to provide basic information for Federal disaster responders and other service providers who may be deployed or otherwise assigned to provide or coordinate services in American Indian/Alaska Native (AI/AN) communities.

*University of Arizona, Mel and Enid Zuckerman College of Public Health, Mountain West Preparedness and Emergency Response Learning Center. (2012). [Public Health Emergency Community Preparedness for Tribal and Rural Communities](#).

This interactive, scenario-based course can help health professionals personalize local community emergency preparedness plans; identify public health emergency training and education opportunities where they may incorporate community members; identify and partner with response agencies, community organizations and state/local/federal agencies when preparing for and recovering from a public health emergency; and identify methods of maintaining emergency response plans.

Urban Indian Health Institute, Seattle Indian Health Board. (2010). [Evaluation and Assessment of H1N1 Outreach for Urban American Indians/Alaska Natives](#).

Researchers from the Urban Indian Health Institute (UIHI) hosted two community focus groups and led three key informant interviews with American Indians/Alaskan Natives living in the Seattle/King County area to understand their experience during the 2009 H1N1 outbreak. The authors share findings and recommendations related to education, messaging, and addressing cultural barriers.

Agencies and Organizations

Note: The agencies and organizations listed in this section have a page, program, or specific research dedicated to this topic area.

Bureau of Indian Affairs. [Emergency Management Division](#).

Centers for Medicare & Medicaid. [CMS Regional Office Rural Health Coordinators](#).

Indian Health Service. [Key Leaders](#).

Indian Health Service, California Area. [Disaster Preparedness](#).

[Mountain West Preparedness & Emergency Response Learning Center](#).

National Congress of American Indians. [Emergency Management](#).

National Organization of State Offices of Rural Health. [NOSORH Members](#).

National Rural Health Association. [Rural Emergency Preparedness and Response](#).

[National Tribal Emergency Management Council](#).

[Rural Domestic Preparedness Consortium](#).

[Rural Emergency Preparedness and Response](#).

[Rural Health Information Hub](#).

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