

**Analysis of Emergency Preparedness Plans in the U.S. Jurisdictions with the Highest Rates  
of Homelessness**

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A thesis

submitted in partial fulfillment of the  
requirements for the degree of

Master of Public Health

University of Washington

2022

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Program Authorized to Offer Degree:

Environmental and Occupational Health Sciences

School of Public Health

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**Abstract**

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Although disasters have always existed in the U.S, the rise in frequency of extreme weather events is an enormous factor contributing to communities facing unprecedented environmental challenges (Chmutina & von Meding, 2019). People experiencing homelessness are disproportionately impacted by disasters due to limited resources and limited social connections to their broader communities; they may not have the ability to respond to public recommendations before and during a disaster (Morris, 2020). Common recommendations, such as voluntary evacuation and stockpiling of food, water, medicines, and supplies, may be beyond the capabilities and resources of individuals and families experiencing homelessness (Morris, 2020). Lack of disaster planning at local government levels for the most at-risk populations adversely affects people experiencing homelessness and will ultimately affect outcomes during response and recovery (US HUD, 2021). Engagement of service providers and organizations who work with people experiencing homelessness in the disaster planning process is essential.

However, the extent to which specific strategies to address the unique needs and communicate risk to individuals experiencing homelessness have been integrated into emergency plans remains unknown. In response, we conducted a content analysis of publicly available emergency preparedness plans in the twenty (20) U.S. city/county jurisdictions with the highest rates of people experiencing homelessness to identify the ways in which, if at all, people experiencing homelessness are considered in emergency management planning. Using a national disaster preparedness guide, we found specific strategies and services for planning to support populations experiencing homelessness (e.g., warning and notification, evacuation and transportation, shelter, and support services) (US HUD, 2021). Our findings showed that although over 80% of plans within CoC jurisdictions included “basic” plan elements such as referring to and defining people experiencing homelessness in their emergency plans, less than 25% of plans integrated “stronger” or “best” plan elements which described specific actions and steps in addressing the needs of people experiencing homelessness. As disasters continue to become more frequent and intense, and the rates of income inequality, and housing precarity continue to rise, local emergency managers, and other key stakeholders within CoC jurisdictions must collaborate to effectively address the needs of people experiencing homelessness through comprehensive disaster planning.

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## **Acknowledgements**

The completion of this thesis project would not have been possible, without the constant support of my thesis committee. Thank you to my thesis advisor and chair, Dr. Tania Busch Isaksen, for your patience, guidance, and meticulous editing. I am extremely grateful that you mentored me as a graduate student and continued to have faith in me over the past two years.

Thank you to my thesis committee members, Dr. Nicole A. Errett and Dr. Jamie Vickery. Your encouraging words, mentorship and detailed feedback have been invaluable to me.

Last but not least, I would like to thank all of my family and friends for always encouraging and motivating me. I am forever grateful for the unconditional love and support they've provided me throughout my entire thesis process and every day.

## **Abbreviations and Acronyms**

AFN: Access and Functional Needs

AHAR: Annual Homeless Assessment Report

CEMP: Comprehensive Emergency Management Plan

CMIST: Communication, Maintaining health, Independence, Support and Safety, and Transportation

CoC: Continuum of Care

CPG: Comprehensive Preparedness Guide

DHS: Department Homeland Security

EOP: Emergency Operations Plan

ERP: Emergency Response Plan

ESF: Emergency Support Functions

FEMA: Federal Emergency Management Agency

HHS: Health and Human Services

HUD: Housing and Urban Development

NIMS: National Incident Management System

OES: Office of Emergency Services

PIT: Point-in-Time

UNISDR: United Nations International Strategy for Disaster Reduction

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## **Specific Aims**

People experiencing homelessness are often the first and most severely affected group during disasters (Gin et al., 2022). They are already in crisis mode, and a disaster can increase their difficulties while adversely affecting their ability to manage the threat of disaster (Gin et al., 2022). They experience a lack of access to financial, social, and physical resources which may limit them from adequately preparing for, responding to, and recovering from disaster (Gibson, 2019). Efforts to promote disaster preparedness are often focused on people who are housed and have the resources to stockpile food and supplies and shelter in place. Additionally, due to limited resources and limited social connections to their broader communities, those who are experiencing homelessness may not have the ability to respond to public recommendations before and during a disaster (Morris, 2020). For example, recommendations, such as voluntary evacuation and stockpiling of food, water, medicines, and supplies, may be beyond the capabilities and resources of individuals and families experiencing homelessness (Morris, 2020). The general public may receive multiple notifications regarding an impending disaster through messages via radio, television, local emergency text or email messaging services, through work, and schools (US HUD, 2021). However, these traditional routes of messaging may not reach people experiencing homelessness due to lack of access to phones, televisions, radio, and computers (US HUD, 2021). Moreover, for those who are able to receive the messages, many may not be able to react due to lack of transportation, limited social capital, caregiver status or pet ownership, and limited sheltering options (US HUD, 2021).

Lack of disaster planning for the most at-risk populations adversely influences people experiencing homelessness and will ultimately affect outcomes during response and recovery (US HUD, 2021). An understanding of the disaster vulnerability of people experiencing

homelessness is essential for effective disaster planning (FEMA, 2008). To aid in disaster response, local, state, and federal agencies maintain emergency management plans that outline processes and organizational relationships with other government and nonprofit agencies to facilitate the timely and coordinated use of personnel and resources throughout crisis and disaster situations (Fogel, 2016). To develop inclusive disaster preparedness emergency planning, governments must make clear provisions such as developing a disaster response strategy to address the major issues that are key to disaster planning for people experiencing homelessness: outreach, transportation, shelter, and support services such as case management, health, and mental health care. However, it remains unknown the extent to which specific strategies to address the unique needs and communicate risk to individuals experiencing homeless have been integrated into emergency management plans. In response, we conducted a content analysis of publicly available city and county emergency management plans within the twenty (20) U.S. Continuums of Care (CoC) jurisdictions with the highest rates of people experiencing homelessness. A CoC is a local or regional planning body that coordinates funding for housing and services for families and individuals experiencing homelessness and represents communities of all kinds, including major cities, suburbs, and rural areas (National Alliance to End Homelessness, 2010). CoCs are generally made up of nonprofit service providers and local government agencies, such as departments of health and human services and public housing agencies, as well as other stakeholders that can include private charitable organizations and local businesses (Center for Evidence-based Solutions to Homelessness, 2017).

Specifically, we aimed to:

**Aim 1: Identify current strategies and services that support homeless populations in 20 CoC jurisdictions' emergency planning materials.**

**Aim 2: Describe gaps and identify areas of improvement for 20 CoC jurisdictions using a national disaster preparedness guide for people experiencing homelessness.**

The results from this study may be helpful to emergency managers, service providers, and public health practice partners to understand trends and gaps in existing planning documents, with respect to people experiencing homelessness.

**Background**

*Disasters Increasing in Frequency and Magnitude*

The United States (U.S.) is susceptible to disasters from natural and human caused hazards which affect thousands of people annually. As a result of climate change, the U.S. has seen an increase in the frequency and intensity of disasters, with cascading impacts to the ways federal, state, and local governments address disasters (Benevolenza et al, 2019). The United Nations International Strategy for Disaster Reduction (UNISDR) defined disasters as “a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.” (UNISDR, 2021). Every state in the U.S. is exposed to myriad natural hazards, which include earthquakes, droughts, floods, hurricanes, landslides, tornadoes, tsunamis, volcanoes, and wildfires (Benevolenza et al, 2019).

The National Climate Assessment Report (2018) predicted that more frequent and intense extreme weather and climate-related events, along with changes in average climate conditions, will continue to weaken and damage infrastructure, ecosystems, and social systems that supply vital benefits to communities (U.S. Global Change Research Program, 2018). As a result of

climate change, heat waves are likely to become more frequent, flooding more common and intense, hurricanes more dangerous, rising sea levels more coastal flooding, and wildfires more intense. Our future climate is predicted to disrupt multiple areas of life - worsening current threats to growth, straining ecosystems, and widening inequality (U.S. Global Change Research Program, 2018).

### *Populations At Increased Risk*

Not all communities experience similar hazard and disaster risk. Some vulnerable populations are at an increased risk of negative health, financial and social outcomes associated with disasters and must have their needs considered when preparing and planning for disasters. “Vulnerable populations” has been an umbrella term used to describe groups that endure a variety of hardships and who may face prejudice, discrimination, and stigma due to their socio-economic status, race/ethnicity, gender, age, cognitive and/or physical ability, etc (Benevolenza et al, 2019). As of the late 2000s, the Federal Emergency Management Agency (FEMA), the agency of the United States Department Homeland Security (DHS) responsible for coordinating disaster response, no longer uses the term “vulnerable populations,” as it was perceived to cast too wide a net. Instead, FEMA now uses “Access and Functional Needs (AFN)”, to describe individuals or groups who need additional or specialized assistance that may limit their ability to act in the context of a disaster (FEMA, 2021).

The 2013 Pandemic and All-Hazards Preparedness Reauthorization Act defined at-risk individuals as people with access and functional needs (AFN) (temporary or permanent) that may interfere with their ability to access or receive medical care before, during, or after a disaster or public health emergency regardless of specific diagnosis, status, or label (US DHHS, 2021).

Examples of AFN populations include individuals with disabilities, individuals who live in institutional settings, individuals with diverse cultures, individuals who have limited English proficiency or are non-English speaking, individuals who are transportation disadvantaged, **individuals experiencing homelessness**, individuals who have chronic medical disorders, and individuals who have pharmacology dependency (US DHHS, 2021).

The U.S. Department of Health and Human Services (HHS) further broke down the term “access and functional needs” using an acronym made up of five categories which focuses on **Communication, Maintaining health, Independence, Support and Safety, and Transportation (CMIST)** (US DHHS, 2021). The CMIST Framework is an approach that is recommended to emergency managers and public health practitioners for planning and integrating AFN populations during a disaster or public health emergency (US DHHS, 2021). Addressing AFN is an important part of comprehensive disaster planning for the whole community and is mandated for inclusion in federal, state, local, tribal, and territorial public health emergency plans (US DHHS, 2021).

**Table 1. The CMIST Framework as described by the U.S. Department of Human and Health Services** (US DHHS, 2021)

<b>CMIST Framework</b>	
Communication	“Individuals who speak sign language, who have limited English proficiency (LEP), or who have limited ability to speak, see, hear, or understand.”
Maintaining Health	“Individuals who may require specific medications, supplies, services, durable medical equipment, electricity for life-maintaining equipment, breastfeeding and infant/childcare, or nutrition, etc.”
Independence	“Individuals who function independently with assistance from mobility devices or assistive technology, vision and communication aids, services animals, etc.”
Support & Safety	“Some individuals may become separated from caregivers and need additional personal care assistance; experience higher levels of distress and need support for anxiety, psychological, or behavioral health needs; or require a trauma-informed approach or support for personal safety.”
Transportation	“Individuals who lack access to personal transportation are unable to drive due to decreased or impaired mobility that may come with age and/or disability, temporary conditions, injury, or legal restriction.”

## *People Experiencing Homelessness*

People experiencing homelessness are included in populations that are at increased risk due to access and functional needs and social vulnerability. Gin et al (2020) described people experiencing homelessness as those who are often the first and most severely affected group during disasters (Gin et al, 2020). According to the 2020 nationwide Point-in-Time Count report, there were 580,466 people experiencing homelessness in the U.S. (National Alliance to End Homelessness, 2010). The Point-in-Time (PIT) count is a count of sheltered and unsheltered people experiencing homelessness on a single night in January (within the last ten days in January) (US HUD, 2014). The U.S. Department of Housing and Urban Development (HUD) requires communities to conduct PIT counts to assess individuals experiencing homelessness (US HUD, 2014). The data is used to measure homelessness on a local and national level and provided annually to Congress as part of the Annual Homeless Assessment Report (AHAR) which is used to understand the nature and extent of homelessness (US HUD, 2014). It is worth noting that scholars and homeless service providers have reported that the number produced from PIT counts is likely vastly underestimated. For example, some subpopulations are likely to be undercounted than others, such as youth, who tend to be more mobile, transient, and stay with friends and so are harder to identify (Auerswald et al, 2013).

Researchers have identified factors and processes that create and escalate homelessness, which must be considered in any work concerning people experiencing homelessness. These factors include but are not limited to lack of affordable housing, decreased access to information and transportation, reduced access to health care, mental and physical concerns, violence, substance abuse, and acute and chronic financial and material resource constraints (Morris,

2020). People who are homeless experience disproportionate rates of chronic disease, criminalization, and harassment, and associated social disadvantages (Stafford & Wood, 2017).

According to the 2021 State of Homelessness in America report, the U.S. has a system of temporary shelters that extends to many people who need sheltering, but some still sleep on sidewalks, vehicles, subway trains, or in parks. These described areas do not constitute adequate sheltering options due to exposure to the elements and lack of safety (National Alliance to End Homelessness, 2021). Additionally, there are considerable differences among subgroups that occur for those who are unsheltered (National Alliance to End Homelessness, 2021). Families with children are the least likely subgroup to be unsheltered, while individuals experiencing homelessness on their own are especially vulnerable and most likely to live in places not intended for people to reside in such as cars, parks, sidewalks, or abandoned buildings (National Alliance to End Homelessness, 2021). Those who are chronically homeless are most presumably in these circumstances, with 66% without any shelter whatsoever (National Alliance to End Homelessness, 2021).

People experiencing homelessness constitute a subpopulation particularly exposed to environmental hazards and therefore are especially vulnerable to the influence of weather conditions which can lead to negative health outcomes (Ramin et al, 2009). Those who live on the street are particularly vulnerable to morbidity and mortality resulting from heat or cold exposure (Ramin et al, 2009). Up to 91% of populations experiencing homelessness in the U.S. live in urban or suburban areas, where they are at increased risk from heat waves due to the heat island effect which happens because of built structures such as concrete and asphalt retaining heat (Ramin et al, 2009, Burt et al, 1999, and Knowlton et al, 2007). Increased heavy

precipitation, intensity of hurricanes and floods will disproportionately impact the populations experiencing homelessness because they remain in marginal areas, are less able to transport themselves out of flooded areas and are more likely to suffer consequences from disasters (Ramin et al, 2009). The impacts of disasters on people experiencing homelessness highlight the importance of preparedness and planning efforts.

### *Emergency Preparedness Planning in the United States*

In the U.S. system of emergency management, the local government must act first to fulfill the public's emergency needs (FEMA, 2010). A key element of preparedness for communities who face emergency threats and disasters is the development of plans that link the many aspects of a jurisdiction's commitment to emergency management (FEMA, 1996). After the 2001 terrorist attacks in the U.S., the need for a unified nationwide incident management system with standard structures, terminology, processes, and resources was paramount (FEMA, 2017).

In response, the National Incident Management System (NIMS), developed by the Department of Homeland Security (DHS), and first published by FEMA in 2008, is a comprehensive, nationwide, systematic approach to incident management that provide a set of concepts and principles for all threats, hazards, and disaster events across all mission areas (Prevention, Protection, Mitigation, Response and Recovery) for jurisdictions to incorporate into their emergency planning (FEMA, 2017). This framework is applicable to all stakeholders at all levels of government with incident management and support responsibilities which include emergency management personnel, non-governmental organizations (i.e., faith-based, and community-based groups), the private sector, and elected and appointed officials responsible for

making decisions pertaining to incidents and disasters (FEMA, 2017). Using a common approach for managing all incidents, NIMS synchronizes the guidance for emergency management with changes to laws, policies, and best practices, and includes information on the roles of emergency management personnel from traffic accidents to major disasters (FEMA, 2017). NIMS also emphasized that all incident management efforts by jurisdictions should incorporate people with disabilities and other people who have access and functional needs (FEMA, 2017).

To guide their jurisdictions' approaches to disaster management, emergency managers develop plans such as "emergency operations plans (EOPs), comprehensive emergency management plans (CEMPs) or emergency response plans (ERPs)" (FEMA, 2010). In 2010, FEMA created a Comprehensive Preparedness Guide (CPG) 101, Version 2.0, Developing and Maintaining Emergency Operations Plans (EOPs), which is a foundation for state, territorial, tribal, and local emergency planning in the U.S. and integrates key concepts from national preparedness policies and doctrines, along with lessons learned from disasters (FEMA, 2010). This version of the guide provides information to assist local and state governments in developing emergency plans that represent and engage the whole community, including those with access and functional needs (FEMA, 2010). With detailed information from the guide on planning considerations for specific functions and threats, jurisdictions at all levels of government throughout the U.S. can utilize this guide to develop their EOPs (FEMA, 2010).

According to FEMA's 2010 CPG 101, a jurisdiction's EOP is a document that appoints responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at deliberate times and places during an emergency (FEMA, 2010). The

EOP sets forth lines of authority and organizational relationships and shows how all actions will be coordinated (FEMA, 2010). Additionally, the EOP describes how people (including individuals with access and functional needs) and property are protected, and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdictions or by agreement with other jurisdictions (FEMA, 2010). The focus of local EOPs is on the emergency measures that are imperative for protecting the public and at a minimum, to include warning, emergency public information, evacuation, and shelter (FEMA, 2010). The EOP has a number of supporting documents such as annexes that include Emergency Support Functions (ESF) pertaining to the jurisdiction's organization and operations. Within FEMA's 2010 CPG on Developing and Maintaining EOPs, various formats are available for jurisdictions to use when developing an EOP that include a functional format, an ESF format, and an agency/department-focused format (FEMA, 2010). The guide is not a one size fit all for all jurisdictions. It is meant to assist jurisdictions on where to start when developing an EOP and discuss which format is applicable and works best for their communities. Mainly, the functional or agency/department formats are used by local jurisdictions, while the ESF format is more likely to be used by larger jurisdictions and other levels of government due to a county containing several municipalities and/or a complex government structure (FEMA, 2010).

*Disaster Recovery Homelessness Toolkit- U.S. Department of Housing and Urban Development*

In 2016, U.S. HUD created the Disaster Recovery Homelessness Toolkit to assist jurisdictions and communities in addressing the needs of access and functional needs populations, specifically people experiencing homelessness, during a disaster. (US HUD, 2021). The toolkit, which consists of three guides, provides information and resources to assist local governments, Continuums of Care (CoC), and service providers that want to ensure

comprehensive and inclusive disaster planning, response and recovery, and long-term recovery efforts (US HUD, 2021). As such, the toolkit presents a framework for collaboration between local governments and service providers crucial to meet the needs of people experiencing homelessness and vulnerable populations during and after a disaster (US HUD, 2021).

The Local Planning Guide, the first guide within the HUD Disaster Recovery Homelessness Toolkit, describes six steps communities can take when addressing the needs of people experiencing homelessness (US HUD, 2021). Additionally, it includes ways to identify people experiencing homelessness in the community and prepare for their needs, involve stakeholders who can help understand issues and identify current resources with the community such as food programs, case management, health and mental health care services, and discuss strategies for meeting the specific needs of this unique vulnerable population such as evacuation and communication/outreach, shelter and services (US HUD, 2021). See Table 2 for a list of local planning guide steps.

**Table 2. Local Planning Guide Steps at a Glance- HUD Disaster Recovery Homelessness Toolkit (US HUD, 2021)**

	<b>STEP 1: CHECK</b>	<b>STEP 2: INVOLVE</b>	<b>STEP 3: COLLECT</b>	<b>STEP 4: IDENTIFY</b>	<b>STEP 5: IMPROVE</b>	<b>STEP 6: PREPARE</b>
<b>STEPS</b>	Find out what disaster planning has taken place	Get the right people together	Obtain data on your population experiencing homelessness	Gather information about your provider network	Expand your plan	Define roles, maintain the plan, and prepare

Step 5 of the Local Planning Guide primarily focuses on expanding emergency plans to effectively integrate the needs of people experiencing homelessness, which is described further in Section 5.1 of the guide titled, “Ensure No One is Left Out: Integrate the Needs of Homeless People in Your Disaster Plans” (US HUD, 2021). Within this section, emergency planners and

other stakeholders walk through an iterative process that breaks down three categories of plan elements that jurisdictions can incorporate in emergency planning to address the needs of people experiencing homelessness: 1) basic plan elements (at a minimum), 2) stronger plan elements, and 3) best plan elements. See Table 3 for a list of the three categories of plan elements (US HUD, 2021).

**Table 3. Categories of Planning Elements- HUD Disaster Recovery Homelessness Toolkit** (US HUD, 2021)

“ <i>Basic</i> ” Plan Elements (at a minimum)	“ <i>Stronger</i> ” Plan Elements	“ <i>Best</i> ” Plan Elements
<ul style="list-style-type: none"> <li>- Critical Background information (terms and data to define the scope of the effort)</li> <li>- Lead agency and partners (jurisdiction and homeless service providers)</li> <li>- Services and support coordinated by jurisdiction (warning notification measures, identified evacuation routes, and list of facilities of shelters)</li> </ul>	<ul style="list-style-type: none"> <li>- Risk Analysis (prioritization of resources)</li> <li>- Preparation and Training (preparedness exercises, distribution of informational materials, and lessons learned)</li> <li>- Warnings and Notifications</li> <li>- Evacuation and Transportation</li> <li>- Shelter and Support Services</li> </ul>	<ul style="list-style-type: none"> <li>- Contingencies (organizations outside of the homeless network such as religious institutions and fraternal orders) that can provide support including volunteers, transportation, materials, and meals</li> </ul>

The first category of plan elements, *basic* plan elements, at a minimum, addressed how plans referred to or defined people experiencing homelessness, demographic data, and descriptions of needs such as food, clothing, personal hygiene supplies, and medical/healthcare (US HUD, 2021). Additionally, roles and responsibilities of the lead agency and partners, and services and support coordinated by the jurisdiction were part of the basic plan elements category (US HUD, 2021).

The second category of plan elements, *stronger* plan elements, focused on strategies that met the specific needs of people experiencing homelessness, such as the community’s approach

to warning and notifications, evacuation and transportation, and shelter and services (US HUD, 2021). Risk analysis and preparation and training strategies were also added in the *stronger* plans category to describe prioritization of resources for people experiencing homelessness and any activities within plans that must take place in order to prepare for a disaster (US HUD, 2021). Examples include development of preparedness and training materials for disaster personnel on issues specific to people experiencing homelessness, development of informational materials to be distributed in areas frequented by people experiencing homelessness, and identification of platforms of communication with key stakeholders to ensure preparedness actions are completed related to homelessness (US HUD, 2021).

The third and last category of plan elements, *best* plan elements, included contingency planning that described any planning that accounted for homeless serving staff that were affected by disasters and identified organizations outside of the homeless service network such as religious institutions and fraternal orders that could provide support (e.g. volunteers, transportation, and meals) to assist in serving people experiencing homelessness (US HUD, 2021).

HUD highly recommends that local governments and jurisdictions work together with partners early in and throughout the planning efforts by building a network of people who have a deep understanding of the community, disaster planning and homelessness (US HUD, 2021). One of the key partners within communities is a CoC that coordinates work to end homelessness (US HUD, 2021). A CoC is a local or regional planning body that coordinates housing and services funding for families and individuals experiencing homelessness and represents communities of all kinds, including major cities, suburbs, and rural areas (National Alliance to End Homelessness, 2010). CoCs are generally made up of nonprofit service providers and local

government agencies, such as departments of health and human services and public housing agencies, as well as other stakeholders that can include private charitable organizations and local businesses (National Alliance to End Homelessness, 2010).

Introduced in 1995 by HUD, the CoC was developed to expand service coordination and integration at the local level, as well as to improve access to services as people experiencing homelessness move from one tier of service to another in their transition to stable housing (Wong et al, 2006). The tiers of service include emergency shelter programs, transitional housing, and permanent supportive housing (Wong et al, 2006). In order to better facilitate the funding application process, bolster coordination of housing and service providers on a local level, and advocate for the development of CoCs, HUD, in 1996, required communities to submit an application for McKinney-Vento Homeless Assistance Grants (National Alliance to End Homelessness, 2010). This effort resulted in a more fundamental and critical approach to housing and services to people experiencing homelessness and allowed CoCs to be instrumental in the process of tracking and managing the specific needs of people experiencing homelessness (National Alliance to End Homelessness, 2010).

Little is known about how CoC jurisdictions with high rates of homelessness are integrating the HUD Disaster Recovery Homelessness Toolkit framework, specifically the Local Planning Guide, into their emergency preparedness plans. Using HUD's framework as a guide, this study seeks to identify and describe gaps in addressing the needs of people experiencing homelessness in twenty (20) U.S. CoC jurisdictions with the highest rates of people experiencing homelessness.

## Methods

This study is a qualitative content analysis of online publicly available emergency operations plans (EOPs), emergency response plans (ERPs), and comprehensive emergency management plans (CEMPs) for the 20 COC jurisdictions with the highest rates of people experiencing homelessness in the U.S. An exploratory, descriptive study conducted by Kennedy et al (2021) used a content analysis approach to analyze state disaster recovery plans to understand the extent to which public health and healthcare recovery strategies were included (Kennedy et al, 2021). In the study by Kennedy et al (2021), the coding scheme was based on the recovery activity lists in the 2015 National Academy of Medicine (formerly the Institute of Medicine) Healthy, Resilient, and Sustainable Communities After Disasters report (Kennedy et al, 2021). The content analysis approach taken in this study mirrors the approach used in our study with the use of an existing guide and plan elements from the HUD's Disaster Recovery Homelessness Toolkit. Authors Hsieh and Shannon (2005) described three approaches to qualitative content analysis: conventional, directed, and summative which offer various ways to analyze text data by coding and identifying themes or patterns (Hsieh and Shannon, 2005). Using a directed content analysis approach, which starts with a theory, or relevant findings as guidance for initial codes, this study will contribute to our understanding of how, if at all, people experiencing homelessness are considered in emergency management planning.

EOPS, ERPs and CEMPs were selected as the types of plan documents to use in this study. Per FEMA, these specific plans spell out the jurisdiction's immediate response to a disaster and fit the inclusion criteria. Jurisdictions can use these plans to provide the goals, roles, and responsibilities that a jurisdiction's departments and agencies are assigned and to focus on

coordinating and integrating the activities of the many response and support organizations within a jurisdiction (FEMA, 2008). Excluded are hazard mitigation plans and recovery plans.

The 20 CoC jurisdictions were selected (Table 4) using the 2020 Point-in-Time count information and associated rankings from the National Alliance to End Homelessness (National Alliance to End Homelessness, 2021). The 20 CoCs represented in this study included 10 county-level CoCs, five city-level CoCs, two city/county CoCs, and three CoCs representing multiple counties.

**Table 4. Continuums of Care (CoC) Ranking 2020- Rate of Homelessness per 10,000 people in the general population** (National Alliance to End Homelessness, 2021)

<b>Rank</b>	<b>CoC</b>	<b>Location (s)</b>	<b>Rate of Homelessness</b> (Out of every 10,000 people)
1	CA-522	Humboldt County CoC	125.5
2	MA-502	Lynn CoC	110.3
3	NY-600	New York City CoC	93.5
4	CA-501	San Francisco CoC	92.2
5	DC-500	District of Columbia	90.4
6	MA-500	Boston CoC	88.6
7	CA-509	Mendocino County CoC	86.6
8	CA-613	Imperial County CoC	84.3
9	CA-508	Watsonville/Santa Cruz City & County CoC	82.6
10	CA-600	Los Angeles City & County CoC	69.0
11	GA-500	Atlanta CoC	63.9
12	CA-519	Chico, Paradise/Butte County CoC	58.1
13	FL-604	Monroe County CoC	56.7
14	CA-504	Santa Rosa, Petaluma/Sonoma County CoC	55.5

<b>Rank</b>	<b>CoC</b>	<b>Location (s)</b>	<b>Rate of Homelessness</b> (Out of every 10,000 people)
15	CA-529	Lake County CoC	55.4
16	CA-530	Alpine, Inyo, Mono Counties CoC	54.7
17	CA-506	Salinas/Monterey, San Benito Counties CoC	54.0
18	CA-526	Amador, Calaveras, Mariposa, Tuolumne Counties CoC	53.0
19	WA-500	Seattle/King County CoC	52.2
20	OR-501	Portland, Gresham/Multnomah County CoC	51.3

Data collection: The plans from each CoC’s jurisdiction(s) were identified and collected via publicly available city and county emergency management websites in 2021. Specifically, we collected EOPs, ERPs, and CEMPs. Excluded were hazard mitigation plans and recovery plans as these plans do not spell out a jurisdiction’s immediate response to a disaster (FEMA, 2010). For jurisdictions with no publicly facing plans, we searched on the Freedom of Information Act (FOIA) website to look up plans that were not available on emergency management and websites (US DOJ, 2022). Additionally, we attempted to verify that each plan was the most current by directly contacting twenty-seven (27) emergency management agencies through email. We received email responses from eleven (11) emergency management agencies stating that the plan on their emergency management website was the most current. If we did not receive a response, a second email message was sent to the remaining sixteen (16) emergency management agencies. No human subjects data were obtained or analyzed for this study.

Data analysis: This study used a directed approach guided by a structured process to qualitative content analysis (Hsieh and Shannon, 2005). We used the Local Planning Guide, one of three guides from HUD’s Disaster Recovery Homelessness Toolkit, to provide an existing guide to

assess which plans included strategies to support addressing the needs of people experiencing homelessness during a disaster (US HUD, 2021). Leveraging the directed approach (deductive approach) to qualitative content analysis, codes were developed based on the core plan elements presented in Section 5.1 of the Local Planning Guide- *Ensure No One is Left Out: Integrate the Needs of Homeless People in Your Disaster Plans* and organized according to higher-order code categories. Codes used to analyze emergency plans were organized into three (3) categories of plan elements: 1) basic plan elements (at a minimum), 2) stronger plan elements, and 3) best plan elements. Each code had a definition and instructions for use (Appendix A- Codebook). The codes were then applied to the plans to identify strategies and services to support populations experiencing homelessness within the twenty U.S. CoC jurisdictions.

Plans were uploaded into NVivo for Mac software, which was used to apply codes to the plan text. Two emergency plans in the study were co-coded by two people independently. Code application was compared, and the coders met to discuss any discrepancies. In instances where code discrepancies were due to misinterpretation of code definitions, the codebook was refined, including clarification of code definitions, before applying the coding scheme to the remaining plans. We reviewed codes applied to each plan to determine if the plan contained each of the specific planning elements and recorded this information into a Microsoft Excel Workbook. We then calculated the descriptive statistics to summarize the proportion of plans and CoC jurisdictions with each of the planning elements.

## **Results**

We collected a total of 21 emergency plans from 16 of the 20 CoC jurisdictions with the highest rates of homelessness: emergency operations plans (n=16), comprehensive emergency management plans (n= 2) and emergency response plans (n=3). Four CoCs jurisdictions did not

have publicly available online emergency plans that fit the inclusion criteria for this study. The majority of the CoC jurisdictions (81%) had plans that covered a single county or city while other CoC jurisdictions had multiple counties represented within a CoC. See Table 5 for a list of emergency plans organized by CoC Jurisdictions.

**Table 5. CoC Jurisdictions Emergency Operations Plans/Emergency Response Plans/CEMPs Analyzed**

CoC #	Continuums of Care (CoC) Jurisdictions (City/County and State)	Plans (n =21)	Date of Plan
CA-530	Alpine, Inyo, Mono Counties CoC, CA	<ul style="list-style-type: none"> <li>Inyo County Emergency Operations Plan</li> <li>Mono County Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>March 2016</li> <li>November 2012</li> </ul>
CA-526	Amador, Calaveras, Mariposa, Tuolumne Counties CoC, CA	<ul style="list-style-type: none"> <li>Calaveras County Emergency Operations Plan</li> <li>Mariposa County Emergency Operations Plan</li> <li>Tuolumne County Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>September 2019</li> <li>2018</li> <li>June 2012</li> </ul>
GA-500	Atlanta CoC, GA	Unavailable	
MA-500	Boston CoC, MA	Unavailable	
CA-519	Chico, Paradise, Butte County CoC, CA	<ul style="list-style-type: none"> <li>Butte County Operational Area Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>February 2011</li> </ul>
DC-500	District of Columbia CoC	<ul style="list-style-type: none"> <li>District of Columbia Response Plan</li> </ul>	<ul style="list-style-type: none"> <li>March 2017</li> </ul>
CA-522	Humboldt County CoC, CA	<ul style="list-style-type: none"> <li>Humboldt County Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>March 2015</li> </ul>
CA-613	Imperial County CoC, CA	<ul style="list-style-type: none"> <li>Imperial County Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>March 2016</li> </ul>
CA-529	Lake County CoC, CA	<ul style="list-style-type: none"> <li>Lake County Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>July 2020</li> </ul>
CA-600	Los Angeles City and County CoC, CA	<ul style="list-style-type: none"> <li>County of Los Angeles Operational Area Emergency Response Plan</li> <li>City of Los Angeles Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>June 2012</li> <li>November 2018</li> </ul>

CoC #	Continuums of Care (CoC) Jurisdictions (City/County and State)	Plans (n =21)	Date of Plan
MA-502	Lynn CoC, MA	Unavailable	
CA-509	Mendocino County CoC, CA	<ul style="list-style-type: none"> <li>• Mendocino County Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>• September 2016</li> </ul>
FL-604	Monroe County CoC, FL	<ul style="list-style-type: none"> <li>• Monroe County Comprehensive Emergency Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• April 2017</li> </ul>
NY-600	New York City CoC, NY	Unavailable	
OR-501	Portland/Gresham/Multnomah County CoC, OR	<ul style="list-style-type: none"> <li>• Multnomah County Emergency Operations Plan-Comprehensive Emergency Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• July 2017</li> </ul>
CA-506	Salinas/ Monterey and San Benito Counties CoC, CA	<ul style="list-style-type: none"> <li>• Monterey County Operational Area Emergency Operations Plan</li> <li>• San Benito County Operational Area Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>• November 2020</li> <li>• August 2015</li> </ul>
CA-501	San Francisco City and County CoC, CA	<ul style="list-style-type: none"> <li>• San Francisco City and County Emergency Response Plan</li> </ul>	<ul style="list-style-type: none"> <li>• May 2017</li> </ul>
CA-504	Santa Rosa/Petaluma/Sonoma County CoC, CA	<ul style="list-style-type: none"> <li>• Sonoma County Operational Area Emergency Operations Plan</li> </ul>	<ul style="list-style-type: none"> <li>• December 2014</li> </ul>
WA-500	Seattle-King County CoC, WA	<ul style="list-style-type: none"> <li>• City of Seattle Emergency Operations Plan, Comprehensive Emergency Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• July 2021</li> </ul>
CA-508	Watsonville/ Santa Cruz City and County CoC, CA	<ul style="list-style-type: none"> <li>• Santa Cruz County Operational Area Emergency Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• October 2015</li> </ul>

### Basic Plan Elements

While the majority of CoC jurisdictions (over 81%) referred to or defined people experiencing homelessness within their plans, only 18% mentioned demographic data of those experiencing homelessness, and 25% described the needs of people experiencing homelessness

within their emergency plans (Table 6). As it related to serving people who experienced homelessness, over half of CoC jurisdictions listed and described roles and responsibilities of lead agency (overall responsible for city/county response in disasters, which include developing plans and procedures for response, alerting and notifying appropriate agencies and ensuring resources are available and mobilized, e.g., office of emergency services), principal responsible organizer (agency who coordinates specific response efforts such as feeding, shelter, and social services, e.g., human services department), agencies coordinating key functions, and service providers assisting with emergency response for people experiencing homelessness.

Additionally, over half of CoC jurisdictions described services and support such as warning and notification measures to reach people experiencing homelessness, identified evacuation routes and transportation arrangements that meet the needs of people experiencing homelessness, and available shelter facilities within their plans (Table 6).

### Stronger Plan Elements

Stronger plan elements further described the jurisdiction's approach to support and services which include warning and notifications, evacuation and transportation, and shelter services such as medical, and behavioral health services that are critical to sustaining people experiencing homelessness (US HUD, 2021). Additionally, stronger plan elements included any preparedness activities such as development of training materials for staff on issues specific to people experiencing homelessness, informational materials to be distributed in areas frequented by people experiencing homelessness, and communication plan with key stakeholders to ensure preparedness actions are completed related to homelessness within plans that must take place in order to prepare for a disaster (US HUD, 2021). None of the CoC jurisdictions' plans included specific support and services in regard to warning and notification, and evacuation and

transportation within their plans of people experiencing homelessness. Only a quarter of CoC jurisdictions (25%) had explicitly described specific actions and steps within the emergency plans regarding shelter services for people experiencing homelessness. Although over half of the CoC jurisdictions (68%) had information within their plans pertaining to preparedness and training for people experiencing homelessness, less than 13% of the CoCs described prioritization of resources and risk analysis specifically to people experiencing homelessness (Table 6).

### Best Plan Elements

Best plan elements included contingency planning that identified additional sources for staffing key functions to assist people experiencing homelessness and organizations outside of the homeless service network such as religious institutions, and fraternal orders) that can provide support including volunteers, transportation, and meals (US HUD, 2021). Overall, CoCs had limited descriptions of contingency planning within their plans. Thirty one percent of CoC jurisdictions had elements of contingency planning, with 12% of CoCs that described planning that accounted for homeless-serving staff affected by a disaster and 18% of CoC jurisdictions that identified organizations outside of a homeless service network that can provide support to people experiencing homelessness during disasters (Table 6).

**Table 6. CoC jurisdictions (n=16) and Plans (n=21) within categories of Plan Elements**

Plan Elements	COCs (N=16) % (n)	Plans (N=21) % (n)	Examples
<b>“BASIC”</b>			
References	87.5% (14)	80.95% (17)	<i>“Access and functional needs (AFN), transportation disadvantaged, vulnerable high-risk populations, pre-disaster homeless population, homeless individuals/people/citizens, and transient persons.”</i> (Calaveras County EOP, City of Los Angeles EOP, Mariposa County EOP)
Definitions	81.25% (13)	76.19% (16)	<i>Access and functional needs (AFN) population” defined as consisting of individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, seniors, children, people living in institutionalized settings, or those who are low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant.”</i> (City & County of San Francisco ERP)
Demographic data	18.75% (3)	14.28% (3)	<i>The San Francisco Human Services Agency leads a biennial homeless count. The most recent survey in 2015 identified 6,686 homeless people. Of that number, approximately 3,505 people (52 percent) were living without shelter.”</i> (City & County of San Francisco ERP)
Description of needs	25% (4)	23.8% (5)	<i>“Those with access and functional needs include members of the community that may have additional needs before, during and after an incident in functional areas including, but not limited to, Alerting and Warning, evacuation and transportation, sheltering, first aid and medical services, and transition back to the community.”</i> (Calaveras County EOP)
Lead agency in Jurisdiction	56.25% (9)	42.85% (9)	<i>“The Lake County Sheriff’s Office of Emergency Services (OES) has the lead responsibility in planning for effectively responding to the AFN population during a disaster situation.”</i> (Lake County EOP)
Principal Responsible Agency	75% (12)	66.6% (14)	<i>The Seattle Human Services Department (HSD) is the lead for Emergency Support Function (ESF) 6 on the Emergency Response Plan for People Experiencing Homelessness.”</i> (Seattle/King County EOP)
Agencies who coordinate key functions	87.5% (14)	80.95 (17)	<i>“The Lake County Department of Social Services, in conjunction with the American Red Cross will coordinate the sheltering and feeding of evacuated residents. Shelters shall be made available for those residents with Access and Functional Needs.”</i> (Lake County EOP)

<b>Plan Elements</b>	<b>COCs (N=16) %(n)</b>	<b>Plans (N=21) % (n)</b>	<b>Examples</b>
Service Provider Agencies	68.75% (11)	52.38% (11)	<i>“Community Based Organizations: A local organization (which may or may not be an affiliate of a national organization) with a primary mission to provide services to specific groups of people. This could include services to people who are developmentally disabled, homeless, low-income elderly, non-English speaking, or others.”</i> (Calaveras County EOP)
<b>Jurisdiction Services and Support</b>	81.25% (13)	71.42% (15)	<i>“County emergency communications services will be provided in such a way that populations with access and functional needs receive adequate and timely warning and emergency information.”</i> (Portland/Multnomah County EOP)
Warning and Notifications	75% (12)	57.14% (12)	<i>“Use every available method of alerting to ensure that persons with disabilities or other AFN get alerts with sufficient time to respond. Ensure that the needs of persons living below the poverty line and/or who may be homeless are considered in the type of alert utilized. Evaluate the need and potential to utilize Hi-Lo vehicle sirens and internal stakeholder organizations to warn homeless individuals.”</i> (Sonoma County EOP)
Evacuation and Transportation	50% (8)	38.09% (8)	<i>“The County will work with local organizations to identify transportation for evacuees. The following should be taken into consideration in order to provide appropriate services to all individuals, including those with access and functional needs”</i> (Lake County EOP)
Shelter and Services	68.75% (11)	66.66% (14)	<i>“Community centers and other County-owned facilities have become the most preferred facilities for shelter operations as they are public facilities and can usually accommodate large numbers of people. Churches are also appropriate as they are often large and have kitchen facilities on the premises.”</i> (Butte County EOP)
<b>“Stronger”</b>			
<b>Jurisdiction Services and Support</b>			
Stronger Warning and Notifications	0% (0)	0% (0)	N/A
Stronger Evacuation and Transportation	0% (0)	0% (0)	N/A

<b>Plan Elements</b>	<b>COCs (N=16) %(n)</b>	<b>Plans (N=21) % (n)</b>	<b>Examples</b>
Stronger Shelter and Services	25% (4)	19.04% (4)	<i>“When pre-disaster homeless persons comprise part of the shelter population, there may be a need for more specific support services. This includes services for substance abuse addiction, mental health services, in addition to a need for transitional housing assistance.” (Monterey County EOP)</i>
<b>Preparation and Training</b>	68.75% (11)	52.38% (11)	<i>“Train and educate County department emergency management staff on issues pertaining to the populations with access and functional needs.” (Lake County EOP)</i>
Preparedness and Training Exercises	31.25% (5)	23.80% (5)	<i>“Both emergency response personnel and members of the community can benefit from developing and implementing a comprehensive exercise program to test emergency plans. Offerings may consist of workshops, tabletops, and functional exercises that test the effectiveness of the various components of such plans, which focus on the coordination of response and recovery efforts of agencies in assisting access and functional needs populations.” (Lake County EOP)</i>
Informational Materials	18.75% (3)	14.28% (3)	<i>“Collaborate with partners to provide cold/freeze related informational material available to senior centers, homeless shelters and other stakeholders that serve at-risk, frail, and people with disabilities and others with access and functional needs. Coordinate and provide cold/freeze weather information to 2-1-1.” (Butte County EOP)</i>
Communication with Key Stakeholders	37.5% (6)	28.57% (6)	<i>“Activate the Community Communications Network (CCN) during emergencies to provide public health and related information to community-based organizations (CBO) and healthcare providers serving vulnerable populations and to receive incident information from CBOs.” (Seattle/King County EOP)</i>
<b>Risk Analysis</b>	12.5% (2)	9.5% (2)	<i>“ESF 6 services will prioritize access and functional needs and compliance with ADA regulations as services come online.” (Seattle/King County EOP)</i>
Prioritization of Resources	12.5% (2)	9.5% (2)	<i>“For those experiencing homelessness, the Coordinated Entry System is available to offer shelter, services, and housing. The program prioritizes those who are most in need of assistance and provides crucial information that helps communities strategically allocate resources and identify gaps in service.” (Sonoma County EOP)</i>
<b>“Best”</b>			
<b>Contingency Planning</b>	31.25% (5)	23.8% (5)	<i>“DHS will provide HSEMA information on social service providers relative to any risk associated with any emergency, including situations involving special needs populations. DHS will plan any contingency services for these populations.” (D.C. Response Plan)</i>
Development of Staffing Plans	12.5% (2)	9.52% (2)	<i>“The Monterey County Department of Social Services is also responsible for staffing the access and functional needs unit of the Mass Care and Shelter Branch in the Monterey County Operational Area (OA) Emergency Operations</i>

Plan Elements	COCs (N=16) %(n)	Plans (N=21) % (n)	Examples
			<i>Center (EOC).” (Monterey County EOP)</i>
Organizations outside of Homeless Service Network	18.75% (3)	14.28% (3)	<i>“Many private agencies, churches, nonprofits and other organizations offer to provide their assistance during emergencies. If needed, the County may request the agency to provide a liaison to the EOC to help facilitate and coordinate mutual aid.” (Imperial County EOP)</i>

**Table 7. Breakdown of categories of Plan Elements and CoC jurisdictions (n=16)**

Plan Elements	CA-530	CA-526	CA-519	DC-500	CA-522	CA-613	CA-529	CA-600	CA-509	FL-604	OR-501	CA-506	CA-501	CA-504	WA-500	CA-508
<b>“Basic”</b>																
References	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	×
Definitions	✓	✓	✓	✓	✓	✓	×	✓	✓	×	✓	✓	✓	✓	✓	×
Demographic data	×	×	×	×	×	×	×	×	×	✓	×	✓	✓	×	×	×
Description of needs	×	✓	×	×	×	×	✓	×	×	×	✓	×	×	×	✓	×
Lead Agency in Jurisdiction	×	✓	×	✓	✓	×	✓	✓	×	×	✓	✓	✓	×	✓	×
Principal Responsible Agency	✓	✓	×	✓	✓	×	✓	✓	✓	×	✓	✓	✓	✓	✓	×
Agencies who coordinate key functions	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	×
Service Provider Agencies	✓	✓	✓	✓	×	✓	✓	✓	×	×	✓	✓	✓	×	✓	×
Jurisdiction Services and Support	✓	✓	✓	✓	×	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	×
Warning and Notifications	✓	✓	✓	✓	×	✓	×	✓	✓	×	✓	✓	✓	✓	✓	×
Evacuation and	✓	✓	×	✓	×	×	✓	×	×	×	✓	✓	✓	✓	×	×

<b>Plan Elements</b>	CA-530	CA-526	CA-519	DC-500	CA-522	CA-613	CA-529	CA-600	CA-509	FL-604	OR-501	CA-506	CA-501	CA-504	WA-500	CA-508
Transportation																
Shelter and Services	✓	✓	✓	✓	×	×	×	×	✓	✓	✓	✓	✓	✓	✓	×
<b>“Stronger”</b>																
<b>Jurisdiction Services and Support</b>																
Stronger Warning and Notifications	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Stronger Evacuation and Transportation	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Stronger Shelter and Services	×	×	×	×	×	×	✓	×	×	×	×	✓	✓	×	✓	×
<b>Preparation and Training</b>	×	✓	✓	✓	×	✓	✓	✓	×	×	✓	✓	✓	✓	✓	×
Preparedness and Training Exercises	×	×	×	×	×	✓	✓	✓	×	×	×	×	×	✓	✓	×
Provide Informational materials	×	×	✓	×	×	×	×	×	×	×	✓	×	×	×	✓	×
Communication with Key Stakeholders	×	✓	✓	×	×	×	×	×	×	×	×	✓	✓	✓	✓	×

<b>Plan Elements</b>	<b>CA-530</b>	<b>CA-526</b>	<b>CA-519</b>	<b>DC-500</b>	<b>CA-522</b>	<b>CA-613</b>	<b>CA-529</b>	<b>CA-600</b>	<b>CA-509</b>	<b>FL-604</b>	<b>OR-501</b>	<b>CA-506</b>	<b>CA-501</b>	<b>CA-504</b>	<b>WA-500</b>	<b>CA-508</b>
<b>Risk Analysis</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	✓	×
Prioritization of Resources	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	✓	×
<b>“Best”</b>																
Contingency Planning	✓	✓	×	✓	×	×	×	×	×	×	×	✓	×	×	✓	×
Development of Staff Plans	✓	×	×	×	×	×	×	×	×	×	×	✓	×	×	×	×
Additional Support Organizations/ Agencies	×	×	×	×	×	✓	×	×	×	×	×	×	✓	×	✓	×

## **Discussion**

While over 80% of CoC jurisdictions in this study had emergency plans included at least some of the “basic plan” elements outlined in HUD’s Disaster Recovery Homelessness Toolkit, our findings suggest there is a vital opportunity to enhance emergency plans (Tables 6 and 7). Specifically, plans can integrate additional elements associated with the “stronger plan” element criteria in HUD’s Disaster Recovery Homelessness Toolkit, including describing preparedness and training activities that embed practices to ensure inclusion of people experiencing homelessness, risk analysis and specific actions regarding jurisdictional services and support such as warning and notification, evacuation and transportation, and shelter and services for people experiencing homelessness (US HUD, 2021). Furthermore, by including contingency planning, an element associated with “best plan” elements in HUD’s Disaster Recovery Homelessness Toolkit, CoC jurisdictions can better prepare for unforeseen circumstances created by disasters by considering contingencies for people experiencing homelessness and the individuals and organizations that serve these communities (US HUD, 2021).

To provide a more focused approach to planning for people experiencing homelessness which can augment emergency plans, several counties within CoC Jurisdictions in this study developed separate planning documents that provided additional information on this unique population and incorporated stronger and best plan elements from the HUD’s Disaster Recovery Homelessness Toolkit. For example, Lake County made publicly available a separate annex devoted to the Access and Functional Needs (AFN) population, which was integrated in the county’s base emergency operations plan (Lake County OES, 2021). People experiencing homelessness are one of the subgroups within the AFN population (US DHHS, 2021). Lake County’s AFN plan was designed to address the needs of the AFN population during a disaster,

by describing actions, roles and responsibilities of the lead agency, and participating organizations and how the county plans to provide essential services before, during, and after the emergency (Lake County OES, 2021).

Additionally, another county within one of the CoC jurisdictions, Salinas-Monterey County, further described the specific needs of people experiencing homelessness by creating the Monterey County Community Resilience Plan to augment their county's EOP. The Monterey County Community Resilience Plan provided an overview of challenges, strengths, projects, and recommendations for fostering community disaster resilience (Monterey County OES, 2021). It is a guide for making the community "more resilient, by bringing the whole community together to better understand the shared risks and capabilities during disasters, and how they can become more capable of handling hardship that comes their way." (Monterey County OES, 2021). The plan described the social vulnerability of people experiencing homelessness who are at a disadvantage pre-disaster, leading causes of homelessness within the county with unaffordable cost of living as the number one cause of homelessness, demographics, lack of access to services such as mental and behavioral health, strategies to strengthen emergency communication among people experiencing homelessness, and goals to strengthen partnerships between emergency management and organizations that serve people experiencing homelessness (Monterey County OES, 2021). Creating supplemental plans such as an AFN annex and community resilience guide to augment a jurisdiction's base emergency plan could assist in incorporating "stronger" and "best" plan elements that go in greater levels of detail on specific aspects of disaster preparedness for people experiencing homelessness and improve the community's disaster response to ensure their needs are recognized and addressed.

### *Strengths and limitations*

Our study sample only included CoC jurisdictions with the highest rates of homelessness; and our findings may not be generalizable to CoC jurisdictions in the U.S. This focus was chosen because we hypothesized that jurisdictions with the highest rates of homelessness were likely farthest along in terms of their emergency planning for people experiencing homelessness. As our study findings reveal that even these jurisdictions' emergency plans are underdeveloped with respect to integrating considerations for people experiencing homelessness, it is likely that widespread efforts are needed to bolster plans. There is room for additional research incorporating more CoC jurisdictions. Notably, the framework for evaluation of emergency plans based on the HUD Disaster Recovery Homelessness Toolkit using a directed content analysis approach developed in this study can be applied to emergency plans outside the 20 CoC jurisdictions with the highest rates of homelessness.

### **Conclusion**

As disasters continue to become more frequent and intense, and the rates of income inequality and housing precarity continue to rise, local emergency managers, homeless service providers, individuals experiencing homelessness and other key stakeholders within CoC jurisdictions must collaborate to effectively address the needs of people experiencing homelessness through comprehensive disaster planning. This content analysis of EOPs, CEMPs, and ERPs from 16 of the 20 CoCs with the highest rates of homelessness highlights the need to enhance the integration of specific strategies and services from HUD's Disaster Recovery Homelessness Toolkit to support populations experiencing homelessness within CoC jurisdictions. While over 80% of plans included "basic" plan elements such as referring to and defining people experiencing homelessness in their emergency plans, less than 25% of plans

integrated “stronger” or “best” plan elements, such as those describing preparedness and training activities that embed practices to ensure inclusion of people experiencing homelessness, risk analysis and specific actions regarding jurisdictional services and support such as warning and notification, evacuation and transportation, and shelter and services for people experiencing homelessness. The HUD Disaster Recovery Homelessness Toolkit offers a guide for this collaboration by offering information, and resources to guide local emergency management agencies, homeless service providers and other key stakeholders through the process of planning and establishing a disaster response effort that serves one of the most severely affected group during disasters, people experiencing homelessness (US HUD, 2021).

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## Appendix A. Codebook

	Subcode	Definition	Instructions	Notes
<b>References to homeless population</b>		Describes how the plan refers to or defines people experiencing homelessness and homeless populations and the source of the definition and any factors that are incorporated into the references.	Code any mention or section that refers to homeless populations within the plan.	
References to homeless population	Definitions	Describes how the plan defines people experiencing homelessness including who is considered homeless.	Code any definitions and categories referencing homeless populations. Code the origin of the definition and the source of the definition (could include sources from US Department of Housing and Urban Development, McKinney-Vento Homeless Assistance Act).	Examples of references: vulnerable populations, access and functional needs, homeless individuals, etc.
References to homeless population	Demographic data	Data on the number of people experiencing homelessness including who is considered homeless and where the data is coming from.	Code any mention of demographic data, how many people are experiencing homelessness, categories they may fall in and what areas within the jurisdiction. Also, code what type of data, how the agency is getting the data and the source of the data.	
References to homeless population	Description of needs	Describes the needs of homeless populations. Could include needs such as food, clothing, personal hygiene supplies, medical/healthcare.	Code any sections that describe the needs of homeless populations.	
<b>Lead agency in Jurisdiction</b>		List or describe agency or office coordinating implementation of plan, its roles/responsibilities as it relates to homelessness and disasters.	Code mention/subsection on agency coordinating implementation of plan. May also include a designated homeless service provider representative that will coordinate with the jurisdiction's emergency response leaders/team during an emergency.	*Agencies involved; any agency or office involved in the implementation, support functions, as it relates to homelessness and disasters; include roles/responsibilities.

	<b>Subcode</b>	<b>Definition</b>	<b>Instructions</b>	<b>Notes</b>
Lead agency in Jurisdiction	Principal responsible agency	List or describe who serves as principal organizer of the coordinated response efforts for local homeless populations and their roles/responsibilities.	Code mention/subsection on agency's role and responsibilities and how this agency fits into the broader disaster efforts. Examples include the health department, etc.	
Lead agency in Jurisdiction	Agencies who coordinate key functions	List or describe how other agencies coordinate key functions including warning and notifications, evacuation and transportation, and shelter and services as it relates to homelessness and disasters.	Code mention/subsection on agencies' roles and responsibilities. Co-code with other codes such as warning and notification, evacuation and transportation, shelter and services.	
Lead agency in Jurisdiction	Service provider agencies	List or describe service provider agencies that will assist with emergency response for homeless populations.	Code mention/subsection of services provider agencies that provide services for the homeless populations for emergency response (roles & responsibilities).	
<b>Jurisdiction services and support</b>		List or describe the services and/or support that will be coordinated by the jurisdictions.	Code specific actions related to warning and notifications, evacuation and transportation and shelter and services for homeless populations.	
Jurisdiction services and support	Warning and Notifications	List or describe any specific steps/ actions in the plan the jurisdiction will take to ensure that the homeless population receive key warning and notification measures.	Code any mention/subsection on specific actions that include how the warning and notifications will be communicated (i.e., cell phone alerts, 211 emergency notification system to reach all shelters and homeless providers, etc), and who would be communicating and making contact with homeless population (i.e., outreach teams).	
Jurisdiction services and support/Warning and notifications	Stronger Warning and Notifications	Description of specific steps/actions in the plan regarding warning and notifications include timeline(s) for communication and also include alternate timelines for different types of disasters for people experiencing homelessness.	Co-code text associated with Warning and Notifications if it meets the additional criteria outlined in the definition	

	<b>Subcode</b>	<b>Definition</b>	<b>Instructions</b>	<b>Notes</b>
Jurisdiction services and support	Evacuation and Transportation	Describe approach to ensuring evacuation or transportation support are available for homeless individuals.	Code the mention/subsection that describe evacuation and transportation arrangements, who is responsible for coordinating the support.	
Jurisdiction services and support/Evacuation and transportation	Stronger Evacuation and Transportation	Description of identified evacuation routes (and alternate ones), destinations, and pick up points accessible to people who are experiencing homelessness. Include alternative transportation arrangements such as bus vouchers or funds for fuel and parking locations for homeless individuals with cars, address any rules that could create barriers with evacuation (i.e., can homeless individuals bring their belongings or pets?), establish a protocol to check with homeless service providers to ensure their evacuation plans are able to proceed, and measures for ongoing communication with evacuees.	Co-code text associated with Evacuation and Transportation if it meets the additional criteria outlined in the definition	
Jurisdiction services and support	Shelter and Services	Lists facilities and places designated to serve as shelters in the event of an emergency/disaster and supportive services.	Code facilities and locations that include current and new shelters identified. Include policy that is used that states shelters will be open to all individuals regardless of behavioral health or physical health issues. Include specific supportive services (i.e., medical, basic amenities, etc).	

	<b>Subcode</b>	<b>Definition</b>	<b>Instructions</b>	<b>Notes</b>
Jurisdiction services and support/Shelter and Services	Stronger Shelter and Services	Description of facilities identified that could be quickly repurposed as disaster shelters (e.g., schools, recent vacant acquisition, etc), procedures in place to ensure continuity of operations as well as to respond to increased needs in shelters after a disaster. Include services and staff ready to serve the needs of diverse populations in the homeless community (i.e., families, individuals, youth and veterans), guidance for shelter staff on effective inclusive ways to support the population, any pre-existing agreements with CoC to provide trained workers to the temporary disaster shelters. Include measures for consistent and comprehensive data collection by disaster shelters that allow for continuous assessment of homeless needs. Include outlining specific services provided in shelters that vulnerable populations may need (i.e., medical services, mental health services, support for substance use disorders, basic amenities, (clothing, toiletries), connecting to support systems (i.e., social workers, parole officers). Include establishment of Memorandums of Understanding (MOUs) to ensure that services can be delivered by designated parties.	Co-code text associated with Shelter and Services if it meets the additional criteria outlined in the definition	
<b>Preparation and Training</b>		Describe any activities within plan that must take place to prepare for a disaster for homeless populations.	Code any sections describing preparedness activities that embed practices to ensure inclusion of the homeless population.	Stronger plans...
Preparation and Training	Preparedness and training exercises	Describe any development of preparedness and training exercises to train disaster personnel on issues specific to homelessness.	Code any sections on descriptions of how exercises are done. Include the targeted audience, type of exercises conducted, and how often exercises are conducted.	

	<b>Subcode</b>	<b>Definition</b>	<b>Instructions</b>	<b>Notes</b>
Preparation and Training	Informational materials	Describe the platform on which information materials about disasters is distributed to the homeless population.	Code mention/subsection describing the platform of distribution, languages materials are provided in, specifics on information communicated, type of informational materials (i.e., posters, flyers, emergency response cards), locations including shelters, and encampments, areas/locations where there will be up-to-date information on status of disasters. Examples include social media, text alert system, news alerts, etc.	
Preparation and Training	Communication with key stakeholders	Describe communication with key stakeholders to ensure preparedness actions are completed related to homelessness.	Code any mention/subsection pertaining to the platform of communication with key stakeholders (i.e., emergency managers, homeless service providers, health department, city officials, etc). Include how often communication occurs, which agencies/stakeholders, timeline, etc.	
<b>Risk Analysis</b>		Describes specific considerations for homeless populations in disasters that can occur in the jurisdiction.	Code any mention/subsection on risk analysis planning on specific considerations for homeless populations in disasters within the jurisdiction.	Stronger plans....
Risk Analysis	Prioritization of resources	Describes how resources are prioritized, specifically to people experiencing homelessness.	Code mention/subsection areas identified as higher risk, specifically for people experiencing homelessness and prioritization of resources where possible.	
<b>Contingency planning</b>		Describes any consideration to contingencies to address the needs of homeless populations in disaster response efforts that may or may not turn out to be larger or longer than expected.	Code mention/subsection pertaining to contingency planning specifically for the homeless populations.	Best plans will include contingency planning to respond to the unexpected.

	<b>Subcode</b>	<b>Definition</b>	<b>Instructions</b>	<b>Notes</b>
Contingency planning	Development of staffing plans	Describes any planning that accounts for homeless serving staff that are affected by the disaster.	Code mention/subsection that accounts for homeless serving staff affected and also identifies additional sources for staffing key functions.	
Contingency planning	Organizations outside of homeless service network	Identifies organizations outside of the homeless service network that can provide support to homeless populations.	Code mention/subsection listing and/or describing organizations outside the homeless service network that can provide support including volunteers, transportation, materials, and meals. Examples of organizations include religious institutions, fraternal orders.	