

# ***Disaster Communication with African American, Black Immigrant and Refugee Communities***

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## Executive Summary

### Project Proposal and Approach

The Oregon Health Authority and the Center for Public Service at Portland State University partnered to assess disaster communication within Black, Indigenous, People of Color and Tribes. The purpose of the assessment had two focuses 1) to identify how diverse community groups prefer to receive information, and 2) to identify how they prefer to be engaged in preparing for Cascadia subduction zone earthquakes and major wildfires.

The intent of the assessment is to offer insights to risk communication and preparedness experts with a glimpse into understanding how Black, Indigenous, People of Color and Tribes view natural disaster information.

Recruitment consisted of referrals from Oregon Health Authorities Community Engagement Team. Due to contracting and time constraints the project team narrowed the focus population to African American/ Black immigrant and refugee communities in the Portland Metro area. Seven different community-based organizations and churches were identified for (7) focus groups with (57) participants.

### Summary of Recommendations

Upon conducting the seven different focus groups the following are the 11 recommendations for engaging with African American/Black immigrant and refugee communities regarding natural disasters such as wildfires and Cascadia.

**Recommendation 1:** Develop and prepare translated information that can be shared with immigrant and refugee CBOs to disseminate to their community networks in their language.

**Recommendation 2:** Develop and provide bilingual and bicultural information and training for respective communities by taking into consideration the community members' various modes and methods for learning preferences.

**Recommendations 3:** Create a more collaborative approach to involve the community from the onset so that OHA can build upon the knowledge of community members while strengthening trust within relationships. Be mindful of how the community is referred to or characterized.

**Recommendation 4:** Develop simple communications for community-based organizations (CBOs) to share or use on their social media platforms. For example, WhatsApp was consistently mentioned as a platform for the immigrant and refugee population as a fast way to connect with the community.

**Recommendation 5:** OHA HSPR unit follow-up with each of the key community organizations and their members to provide an overview of Cascadia subduction earthquake. The seven community organizations that helped the project team to set up the focus group session are good groups to start and they are eager to be contacted.

**Recommendation 6:** When appropriate, include disaster preparedness as a part of OHAs branding to communities. Let the public know that OHA deals with natural disasters.

**Recommendation 7:** Involve community-based organizations (CBOs) in the planning and execution of any communication, training or workshop. Capitalize on CBO trust and strong connections with the community.

**Recommendation 8:** Continue to stay active in working directly with community-based organizations (CBOs). Be the trusted partner that they want to work with.

**Recommendation 9:** Identify the key leaders of community-based organizations (CBOs), and also know what CBOs take the leadership roles in the communities. Develop a network of CBOs and CBO leaders that OHA can call upon to communicate and disseminate disaster information. (This recommendation corresponds to *the narrative theme 9: Very little mention of government authorities.*)

**Recommendations 10:** Offer reasonable tips on the things communities can do to be prepared for disasters. Be transparent and let them know the challenges of predicting outcomes of disasters, but emphasize the efficacy of being prepared.

**Recommendation 11:** Provide basic preparedness information in a hands-on interactive manner. For example, developing a workbook that communities could complete together in a workshop type of setting where they can collectively identify specific evacuation zones or disaster meet-up locations will help people internalize the information.

## Section 1. Project Background and Review of the Literature

### Subsection 1.1 Project Background

During the late summer of 2020 Oregon communities experienced the worst wildfire season on record with at least 11 people killed, over a million acres burned and thousands of homes and structures destroyed. All this occurred as the COVID 19 pandemic was still going on. While disaster and climate change affected many people in our region, the smoke and fire season of 2020 hit communities of color across the state particularly hard. Inequities and disparities did not stop with pandemic but were also felt as air quality, smoke advisories and evacuations were in effect across Oregon.

Portland State University's (PSU) Initiative for Community and Disaster Resilience (ICDR) and the Nonprofit Institute (NPI) within the Center for Public Service (CPS) was contracted by the Oregon Health Authority (OHA) to identify:

- (1) How diverse community groups prefer to receive information, and
- (2) How they prefer to be engaged in preparing for Cascadia subduction zone earthquakes and major wildfires.

Reaching out to a broader public to share information related hazards such as earthquakes and wildfires is challenging. The information shared can be overwhelming for many people to process and they may not know how to respond to the information they received. More recently, COVID-19 has created additional challenges in outreach due to the public health, economic and behavioral health impacts of the pandemic. It is also more challenging to outreach, share information and engage members of traditionally marginalized communities such as Black, Indigenous, People of Color and Tribes, and disability communities.

For governmental and community disaster response and preparedness programs that focus on earthquake and wildfire, it is important to understand how people from diverse communities prefer to receive and process information related to earthquake and wildfire preparedness, particularly under the "new normal" with the impact of the pandemic.

This project aims to gather information from diverse community members to identify effective ways to share information and engage them in disaster preparedness. To gather information from the BIPOC community within the allotted timeline and the available resources for this project, the scope of the project was narrowed down to focus on African American and Black immigrant and refugee populations. The project team aimed to capture ways in which African American and Black immigrant/refugee populations want to receive information and education about Cascadia subduction zone earthquakes and major wildfires.

### Subsection 1.2 Academic Literature

The project team explored the academic literature to help develop the focus group protocol and to have background information on disaster communications theories. The literature reviewed established background knowledge in natural disaster preparedness and response and focused specifically on the following three categories: (1) communication between government authority and individuals and groups, (2) the perceptions of disaster events and risk for those receiving communications, and (3) the actions that individuals and groups take given outside communication and personal perception.

To understand the different aspects of natural disaster preparedness and response, the project team adopted Bradley et al.'s (2014) four stages of disaster cycle: mitigation and prevention, preparedness, response, and recovery. The stages each require a different kind of Crisis and Emergency Risk Communication (CERC), a form of communications "to inform the public about an event or issue to empower members of a community to protect themselves" (Bradley et al., 2014, p. 1). The focus of this project is primarily on the disaster preparedness and response stages. Bradley et al. reviewed studies that showed the efficiency of preparedness interventions, but also notes a common trend that a minority of people when alerted to an imminent disaster, either do not understand the information or choose not to act. Our literature reviewed explored both barriers to communication and action.

The literature we reviewed suggests that developing strong lines of communication between OHA and communities of interest is a critical part of disaster preparedness, although developing these lines of communication is not always straightforward. Johnston et al. (2020) explored the tension that can arise between government agencies and communities when communicating disaster response strategies. Their article is a reminder that a government actor may not always be the most effective messenger to some communities. Rundblad et al. (2010) examined a US case study of a contaminated water emergency. In this case, the public relied on their folk beliefs, and favored information from the local media, family, and friends over official government communication channels.

Despite the difficulties, OHA is interested in leveraging partnership with community organizations to improve disaster preparedness response and communication. Chen et al. (2013) investigated public-private partnerships (PPP) between government and non-state actors in disaster preparedness and response. Although Chan et al. finds the mixed empirical results of PPP, it is a growing area of interest for disaster management. Chen et al. had suggestions for improving PPP including incorporating local communities into disaster resilience building, fostering partnerships with non-state actors, using social media for communication, and being open to learning from community partners.

In some circumstances, the use of nongovernmental channels in disaster communication may be a necessity and not a preference. Wang et al. (2011) found that foreign-born people

removed from city centers were at higher risks in a disaster situation. To counter the isolation and higher risk of immigrant and non-English speaking groups, Wang et al. suggested that public officials need to focus on communication via cell phones and personal networks. Appleby-Arnold et al. (2019) echoes the importance of cell phone applications (apps) as a method of disaster communication that can effectively share information and create relationships that build understanding.

The informal networks that are traditionally perceived to be belonging to underserved and minority communities are a valuable resource in disaster communication. A case study by Galarce and Viswnath (2012) found that minority communities were able to respond most effectively during a water crisis. Galarce and Wiswnath, along with the other cases above, emphasizes the importance of knowing your audience in disaster communication, and using the appropriate messenger to match the community. Appleby-Arnold et al. (2021) conducted a study that found that different cultural factors influenced disaster preparedness and response. Although our team is not studying the same groups as Appleby-Arnold, it is important for our project team not to assume that each group will have the same cultural factors and perspective on disaster preparedness and response.

Besides the messenger, another important factor in communication is the message. The appropriateness and congruence of the message is very important. Marlowe et al. (2018) defines a congruent message as “understandable and appropriate information to groups characterized by cultural and linguistic diversity.” Marlowe et al. (2022) detained principles to help improve message engagement with diverse groups, and particularly resettled refugees. Marlow et al. suggested that disaster authorities need to learn the background of groups in their jurisdiction to inform their response strategies, set preferred forms of communication.

As noted by Bradley et al., disaster information communicated does not always result in response actions. One key factor in managing how an individual receives disaster communication messages is their perception. Individuals have different factors that influence how they respond to messages about disaster preparedness and response. One influence on risk perception is the risk culture an individual comes from (Cornia et al., 2016). Cornia et al. propose three dimensions of risk culture, how disasters are framed, how much authority is trusted, and how blame is assigned. Different levels of these dimensions can result in three risk culture ideal types: State-oriented, individualistic, and fatalistic. A state-oriented risk culture may trust government messages, but also abdicate their safety completely to the government, and then blame the government when things go wrong. A fatalistic risk culture alternatively, may believe disasters are outside of anyone's control and take no action to respond to disasters.

Wachinger et al. (2013) used a meta-analysis to explore various categories that influence risk perception. Their analysis finds that disaster experience and trust influence risk perception the



most, though not always in ways that result in more preparedness or effect disaster response. Depending on the severity of the disaster, experience may make a person wary of risks or confident in their ability to stay safe in the future. Trust in government can also get individuals to listen to official messages, but also lead to complacency. Building a working relationship with the government seems to positively affect trust and reduce the negatives of an overreliance of trust in government.

The uncertain effects of risk perception lead to a paradox, increased awareness of disasters does not always lead to preparedness actions. There are different explanations for this paradox. Some individuals accept risk as part of the benefits they accrue, for example choosing to live in a floodplain. Others do not feel they have personal agency to take action. Finally, some individuals would take action, but do not have resources to do so.

### Subsection 1.3 Documents from Government Agencies

The project team also reviewed official disaster preparedness material from OHA (Oregon Health Authority, n.d.) and the Oregon Office of Emergency Management (OEM)(Office of Emergency Management, n.d.). Although OHA does not have jurisdiction and responsibility, OEM's jurisdiction, to plan for disaster response in Oregon, it was useful to get a sense of OHA's role in disaster preparedness policy and plans. OEM's Comprehensive Emergency Management Plan details the responsibilities of different state agencies into designated Emergency Support Functions (ESF)(Office of Emergency Management, 2017). The ESF 2 detailing communication lists various communication partners, but nobily only other state agencies. Similarly, ESF 15 on public information, lists OHA as a lead organization when their subject matter area is relevant to the disaster, such as a pandemic, otherwise, OHA is a support agency. Wildfires and earthquakes are not OHA's area of jurisdiction. Additionally, the only non-state actor in ESF 15 is the American Red Cross.

### Subsection 1.4 Other Oregon-Focused Research Reports

The project team connected with other thought leaders across the state around disaster preparedness the project team participated in monthly meetings of Smoke Ready Communities hosted by John Panches of Oregon State Extension Services. This group served as an instrumental hub of information that led the project team to consider honing their population group and interview approach. There were several concurrent projects that were addressing similar questions around disaster preparedness and communications. Two reports that informed the team's approach included the Oregon Wildfire Smoke Communications and Impacts report conducted by the University of Oregon (Coughlan et al., 2020) and the Culturally-Specific Populations Emergency Communications Project by Multnomah County Preparedness Unit (Katagiri, 2007). Also, the project team reviewed the 2007 Northwest Oregon Health Preparedness Organization Culturally-Specific Populations Emergency

Communications Project to identify the most appropriate methods for communication with culturally-specific populations in an emergency to ensure timely distribution of information.

## **Section 2. Methods**

### **Subsection 2.1 Data Collection Approach**

This project used focus groups, a qualitative data gathering approach, focusing on developing an in-depth understanding of the perspectives and experiences of the members from African American and Black immigrant/refugee communities. Qualitative method was used to capture the community members' own thoughts as much as possible with the recognition that they are the experts in their experiences and preferences. According to Morgan and Krueger (1993, pg. 5) “focus groups emphasize the goal of finding out as much as possible about participants' experiences and feelings on a given topic.” Focus groups help the participants reflect on their own opinions and experiences through the discussion, and clarify their thoughts (Morgan & Krueger, 1993). Our team suspected that wildfire events from two years ago and a potential earthquake disaster may not be at the front of everyone’s minds, but if participants discussed what happened in their community, they would remember their perspectives and experiences. The project team also thought that focus groups would be particularly useful for our participants who may have some hesitation for having one-on-one interviews with researchers (Kitzinger, 1995). Participants who are community oriented would be more open to sharing their thoughts in the group setting with their community members but may be more reluctant if separated. Therefore, the project team did not elect to interview participants individually.

Key informant interviews with the representatives from OHA community partner organizations were conducted only for the purpose of informing the focus group protocol. Their perspectives were kept separated from focus group participants to center the project on the perspectives of the members of the community of interest (COI), i.e., African American and Black immigrant/refugee. While we recognize that the OHA community partner organizations have important perspectives of disaster preparedness to share, their status as officially designated OHA community partner organizations provide them with communication channels with OHA and their perspectives are not the same as that of the general members of the COI.

### **Subsection 2.2 Focus Group Procedures and Protocol**

A total of seven focus groups were conducted. Seven African American/Black immigrant and refugee community based organizations across the Portland metro area (See Table 2 for the list of organizations) helped the project team in soliciting volunteer participants (See Appendix C for the project recruitment letter ) from their respective constituencies. Participants were compensated with \$50 prepaid gift cards. We targeted to have somewhere around 6-8 participants for each focus group. The number of participants for each focus group ranged from three in the smallest group to sixteen in the largest (See Table 2). Prior to starting each focus

group discussion, participants were asked to complete consent forms (included in Appendix B) and asked to complete a short demographic survey asking gender, zip code, age range, and all languages spoken. Each focus group was attended by at least one facilitator and one note-taker from the project team. Due to privacy concerns, only a few focus groups were recorded. The notes taken by the project team members during the focus group, not verbatim transcripts, were used as the data for analysis.

### Subsection 2.3 Facilitation

The project team members took turns in facilitating focus groups following the same script (See Appendix A for full script). The script contains eight primary questions and several optional follow up questions aimed at gauging participants' communication preferences, perceived level of preparedness, and what methods would work best to keep them engaged and aware of information related to disaster preparedness and response (See Table 1 below). Of the eight questions, four directly asked about wildfires, three about Cascadia, and one about participants' knowledge of the Oregon Health Authority's activities.

Table 1. List of Focus Group Questions

<ol style="list-style-type: none"> <li>1. How did you and your family learn about the wildfires that were happening in your community? <ul style="list-style-type: none"> <li>● Facilitator follow-up: What do you remember the news saying (what was the message)?</li> <li>● Facilitator follow-up: What advice did you follow based on the news/message?</li> </ul> </li> <li>2. What information about smoke-related air quality would help keep you safe?</li> <li>3. How prepared do you feel if a wildfire event were to happen tomorrow? <ul style="list-style-type: none"> <li>● Facilitator follow-up: For those of you who feel prepared or ready, can you tell me what factors contributed to your preparedness?</li> <li>● Facilitator follow-up: For those of you who DO NOT feel prepared or ready, can you tell me what would make you feel more prepared or ready?</li> </ul> </li> <li>4. Who or what is the most trusted source of information for you and your family during times of natural disaster? <ul style="list-style-type: none"> <li>● Facilitator follow-up: Was this person or group giving out information about the wildfire? What makes that person or group trustworthy?</li> </ul> </li> <li>5. How prepared do you feel if an earthquake such as this were to happen tomorrow? <ul style="list-style-type: none"> <li>● Facilitator follow-up: For those of you who feel prepared or ready, what factors contributed to your preparedness?</li> <li>● Facilitator follow-up: For those of you who DO NOT feel prepared or ready, what would make you feel more prepared or ready?</li> </ul> </li> <li>6. How would you want to learn more about this topic and how this would affect you and your family?</li> </ol>
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- Facilitator follow-up: Who or where in the community would you want to get this information from?
  - Facilitator follow-up: Would it help to have this in different languages? Is it too technical?
7. What are some ways you would want to learn more about the topic Cascadia Subduction Zone, if at all?
  8. Have you seen disaster information from OHA?
    - Facilitator follow-up: For those of you that have seen information from Oregon Health Authority, what did you think about it?

### Subsection 2.4 Focus Group Participants

A total of 57 people participated in the seven focus groups (See Table 2).

Table 2. List of community-based organizations

Community Based Organizations	Number of participants
1. Muslim Educational Trust	5
2. African Youth and Community Organization	16
3. St. John's All Nations Church of God in Christ	8
4. Urban League of Portland	3
5. TOGO Community Organization of Oregon	5
6. Somali-American Council of Oregon	13
7. Rohingya Youth Association of Portland	7
<b>Total number of participants</b>	<b>57</b>

As can be seen in the Figure 1 and Figure 2 below, overall there were more female participants (77.8%) than male participants (22.2%). Of the 54 participants who responded to the demographic survey, 16 of them identified as being in the age category of above 56, and are overrepresented compared to other age categories.

Figure 1. Focus Group Participants by Gender

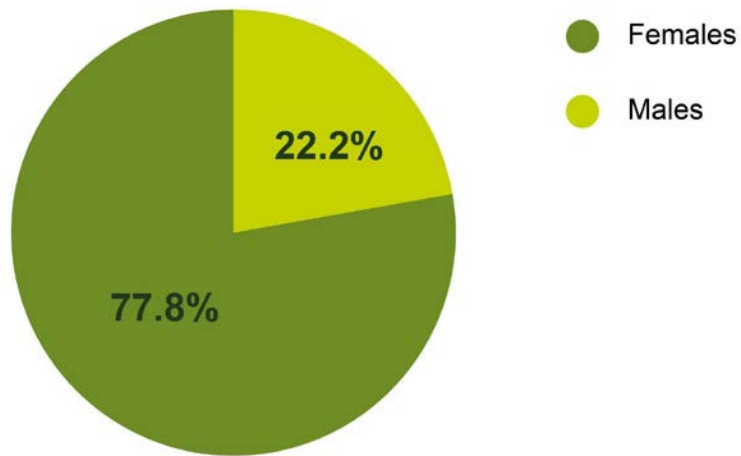
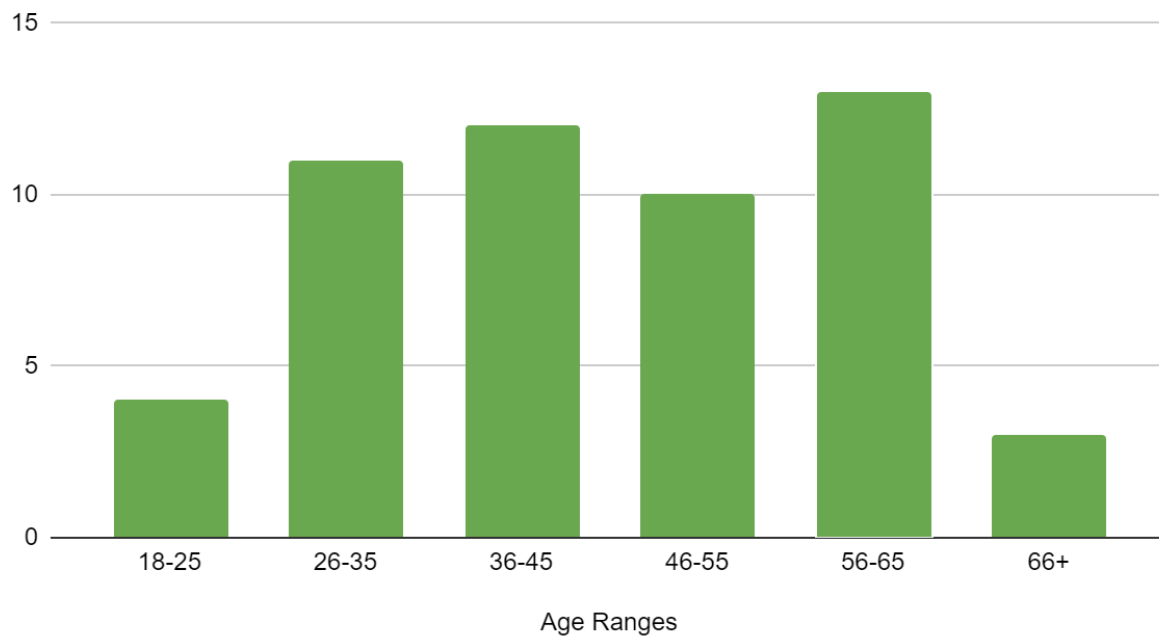


Figure 2. Focus Group Participants by Age

### Participant Ages



In terms of the areas of residence, major portions of the focus group participants were from South Portland, East Portland towards Gresham, and neighborhoods around NE and SE

Portland. Participants came from all across the Portland Metro area however, including several from Vancouver, Beaverton, and Hillsboro. (Figure 3).

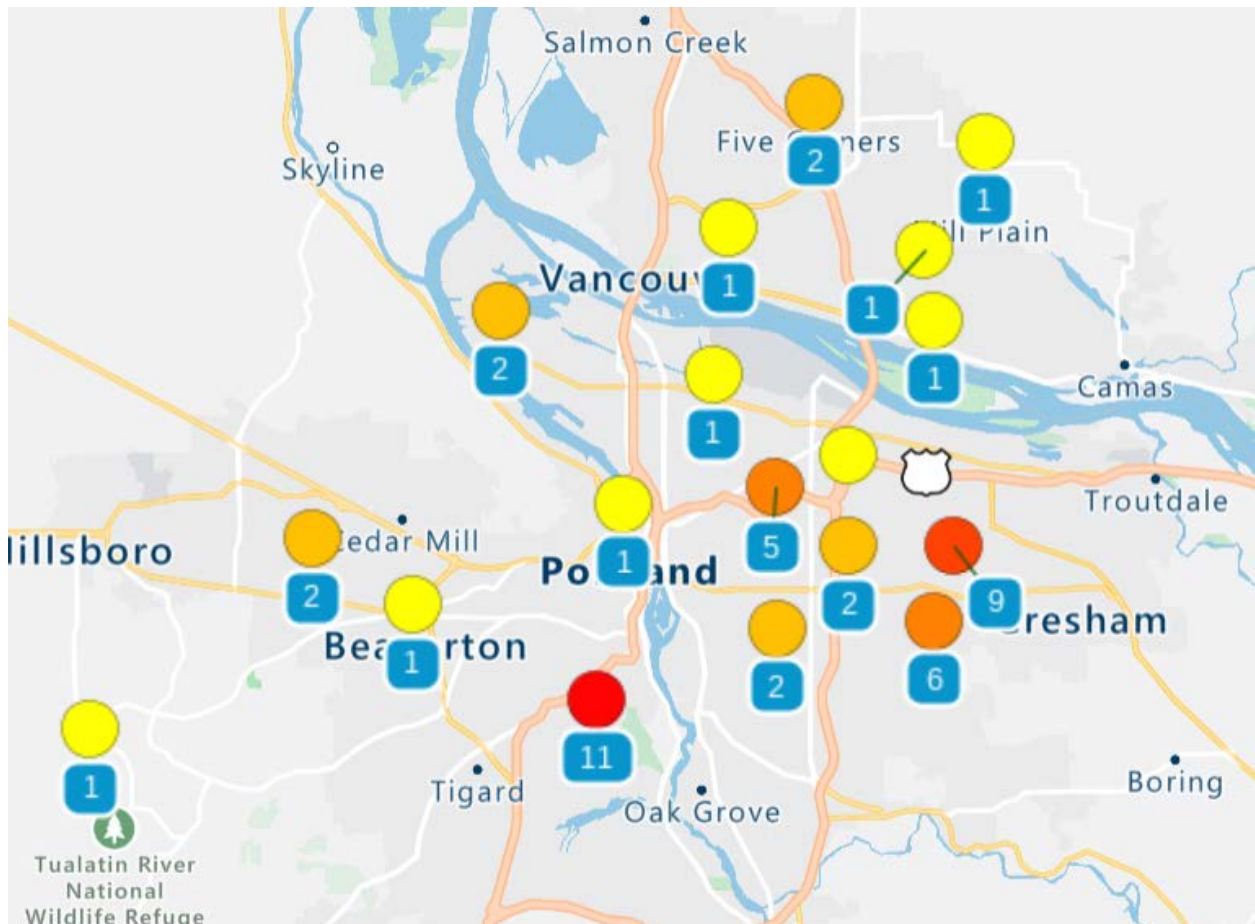
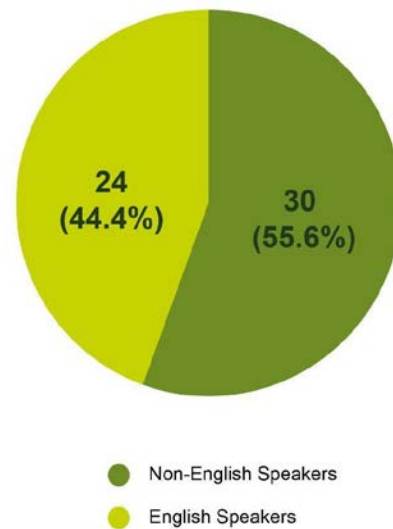


Table 3. List of Languages Spoken

LANGUAGES SPOKEN	NUMBER OF SPEAKERS
English	24
Somali	32
Rohingya	5
Arabic	4
French	4
Burmese	3
Urdu	3
Ewe	3
Hindi	2
Swahili	2
Oromo	1
Amharic	1
Kposo	1
Malaysian	1

Figure 4. English vs. Non-English Speakers



### Subsection 2.5 Data Analysis Procedure and Key Categories

The focus group data was analyzed in an iterative manner involving development of **conceptual models**, **categorizing** the data, and identifying **narrative themes** based on the review of the data and by sharing observations of the focus group participants during the sessions.

#### Barriers to Communication

Comments by the focus group participants that referred to the government agencies not taking appropriate actions to communicate to the community of interest; and as a result information not being successfully conveyed to communities of interest were noted in this category.

Example comments that are identified in this category include: *“agency communiqués are not in an accessible language,”* and as a consequence *“basic disaster information is not being conveyed”* to the members of the community effectively and accurately.

#### Remedies to Communication

This category captured possible fixes suggested by participants to communication barriers that would result in more reliable transfer of information to community members.

Example comments that are identified in this category include suggestions such as: *“providing agency communiqués in multiple languages,”* and *“working with community partners to disseminate disaster information more directly,”* may be a solution to improve communication.

#### Factors of Perception

Characteristics of individuals or communities that affect how they receive, process, and act upon information were captured in this category.

Example comments that are identified in this category include comments that referred to their *“risk perception,” “trust in government/community/the news,”* and their *“experience with disasters.”*

#### Barriers to Action

Comments by the focus group participants that referred to the government agencies not taking appropriate actions for the communities of interest during, or in preparation for, a disaster were captured in this category.

Example comments that are identified in this category include comments that referred to the agencies *“not providing disaster preparedness training,”* and *“not providing clear evacuation advice”* to the community members.

#### Remedies to Action

This category captured possible actions for the agencies suggested by participants that would help communities of interest be prepared and better able to respond to disasters in a timely manner.

Example comments that are identified in this category include suggestions such as: providing *“consistent and comprehensive disaster preparedness training”* and to provide *“clear and available localized evacuation protocol,”* for the communities of interest,

After organizing the focus group data to those categories, the project team identified the general theme based on the patterns of ideas represented in the data.

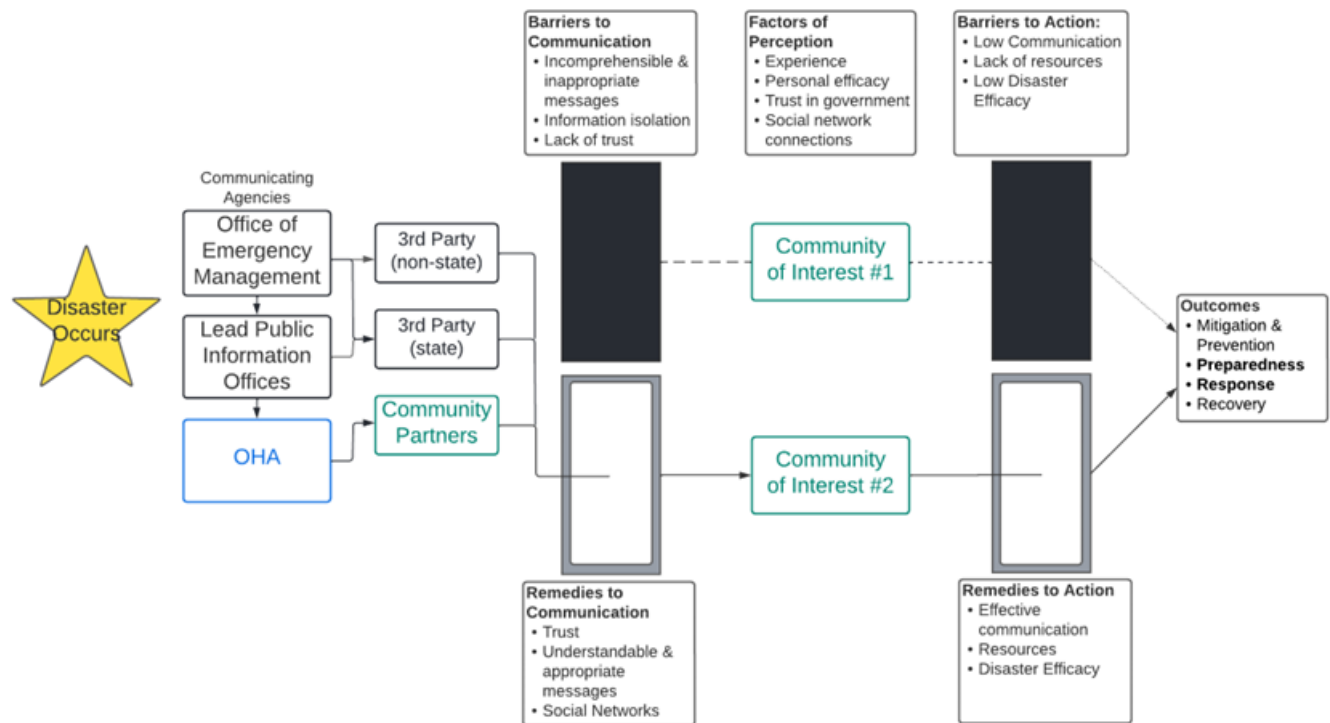


## Section 3. Results

### Subsection 3.1 Conceptual Model from the Literature Review and Data Analysis

Based on our literature review, conversations with other OHA partners, and OHA's goal to prepare communities of interest for wildfires and the Cascadia subduction zone earthquake, our team developed two models of disaster communication to organize our thoughts and inform our focus group data analysis.

#### Model 1: Factors involved in disaster communication



The first model represents our team's understanding of the factors involved in disaster communication. This model depicts the disaster communication context in Oregon recognizing the role of state and non-state actors, the heterogeneous nature of the communities of interest (COI), and that OHA disaster communication affects different outcomes in different disaster stages. The left side of the diagram details the flow of disaster communication information from primary sources, such as the OOME and other Lead Public Information Offices, that support state agencies and other non-Oregon state agency actors from both public and private sectors. The underlying operational assumption of this model is that (1) OHA is not a lead agency in the event of wildfire or earthquake natural disasters, and (2) OHA communicates directly with its established community partners and with COI.

#### Different actors' connection to COI and variabilities in barriers to communication

Situated at the center of the model are the COI, who were represented by the seven focus groups in this project. Each COI has unique ***factors of perception, such as risk perception, personal efficacy, social network connections, and levels of trust in government.*** These perceptions will influence members of COI's responses to disaster information and disasters themselves. The actors depicted on the left side of the model, when prompted by the occurrence of a disaster, are the senders of disaster-related messages to the COI in the center. However, in between the actors and COI, there can be some **barriers to communication** noted by the black rectangle in the model. These barriers to communication can be things such as inappropriate messages, lack of trust between the actor and the COI, and represent information isolation. The barriers to communication may be different from COI to COI. As depicted in the model, some COI may have better communication opportunities with the actors. They may have "larger holes" or the openings in the communication barrier (i.e. the gray box with the white opening in the model.) And some COI may only have smaller openings in the communication barrier, and hence still face more communication issues. This model illustrates the scenario where COI #2 is able to receive information from many actors (i.e. a large hole in the communication barrier), where COI #1 connects with no actors (i.e. an impenetrable communication barrier).

This model provides insights that it may be useful to identify the actors that can connect with a community that OHA has been unsuccessful with; and also how they are connecting with the community. Also as depicted in the model, the literature suggests that local community partners are typically more effective in navigating existing barriers to communication than the larger, more removed actors. Therefore, it is useful to effectively engage and mobilize the local community partners in the process of OHA's disaster communication to the COI.

#### Barriers to action affects the outcomes at all 4 stages of disaster

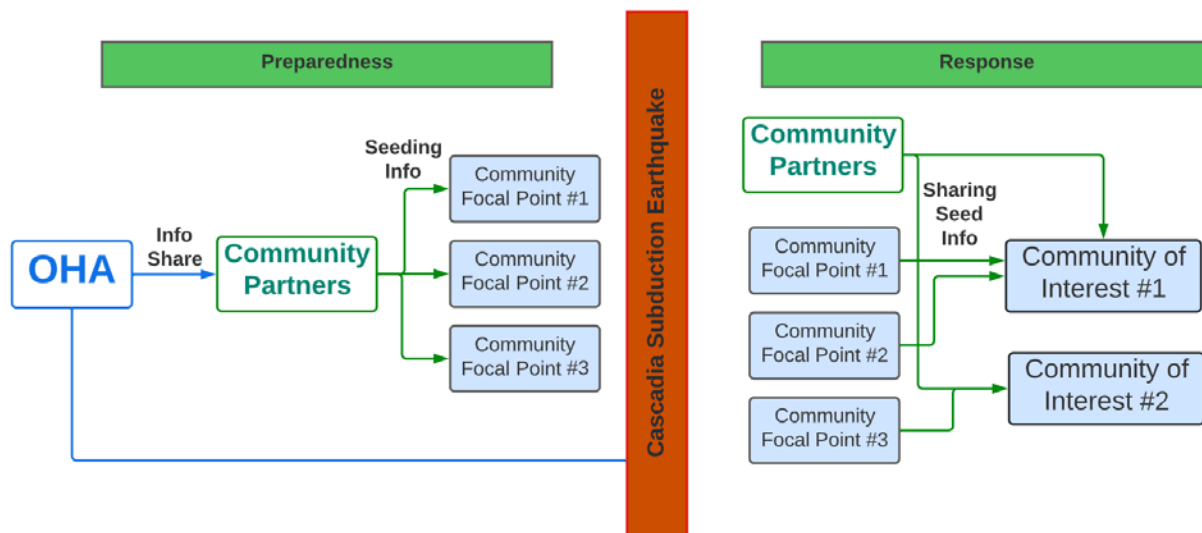
Different COI chooses different courses of action that will lead to different outcomes. These choices affect the outcomes at each one of the four stages of disaster. For example, whether a COI chooses to follow recommendations on stockpiling food and water affect the preparedness outcome, whereas whether a COI chooses to follow evacuation orders affects the response outcome. However, similar to the communication barriers, there are potential barriers to COI taking actions. On the right side of the model, the black rectangle represents potential **barriers to action** for the COI that negatively impact desired outcomes at each stage of disaster. The barriers to action may include lack of communication, lack of resources, and low sense of disaster efficacy.

#### Emphasis on identifying remedies to remove communication and action barriers

This model suggests that in order to improve the outcomes of COI at each stage of disaster the **barriers to communication** and **barriers to action** needs to be removed or remedied. For example, if a COI does not trust a government actor's communications, establishing trust will

improve communications. If a COI is willing to take action to follow recommendations to improve disaster preparedness, but lacks resources to take action, follow recommendations, a remedy would be to provide necessary recourse required to prepare for disasters. Similar to the remedies to communication, COI #2 is able to overcome the barriers to action and will likely have improved outcomes to COI #1.

## Model 2: Communication flow for preparedness and response stages of Cascadia subduction earthquake



Our team also considered the challenges that a Cascadia subduction earthquake could present to OHA's disaster communication. When the Cascadia earthquake happens, communication infrastructure would likely be damaged and OHA may be unable to communicate effectively with COI during the response phase. This means, OHA needs to establish good communication with COI during the preparedness stage, before the earthquake happens. The second model presented above depicts the potential communication flow in the event of Cascadia subduction earthquake. Left side of the model shows the communication flow during the preparedness stage before the Cascadia subduction earthquake happens. The right side of the model shows the communication flow during the response stage after the Cascadia subduction earthquake.

During the preparedness stage, in order to equip COI with the information they need during disaster response, OHA focuses the information sharing with Community Partners. The Community Partners then seed that information into Community Focal Points, which represents the places where a community naturally converges. Examples of Community Focal Points include religious institutions, community centers, social clubs, restaurants, stores, and in some cases the Community Partners themselves. The literature suggests that at times of disaster

members of COI will go to their Community Focal Points for guidance and information. Therefore, during the preparedness stage of the Cascadia subduction earthquake, it is important that OHA share information with the Community Partners and develop a system where the Community Partners disseminate information to the Community Focal Points. When the earthquake hits, as noted earlier, OHA will most likely lose mechanisms for direct communication with the members of COI. With people congregating at the Community Focal Points during the recovery phase of the earthquake, it is important that both the Community Partners and the Community Focal Points become credible sources of information for the members of COI.

### Subsection 3.2 Narrative Themes

The project team identified the following 11 key themes in the focus group narratives that are related to the five categories (i.e. Communication barrier, Communication remedy, Perception, Action barrier, and Action remedy) that influence the overall disaster communication and preparedness outcomes of the communities of interest.

#### Communication Barriers and Remedy Related Themes

##### **Theme 1. Language is very important**

When asked about the best ways to be communicated with about disaster preparedness, our team heard time and time again about the importance of communicating in our participants' native languages. Inappropriate messages due to communicating only in English was a common barrier to communication. For participants from immigrant communities the medium for the language matters as well. Many said that they were able to understand written English well enough but struggled with understanding spoken English on the news for example.

##### **Theme 2. Multiple ways of learning preferred**

Along with using the appropriate languages, the participants expressed a desire to have information communicated to them in a variety of ways. Some participants said their community did not learn from reading and would need lectures, video, and town halls to learn more about potential natural disasters. Other participants said they liked to learn actively and would prefer simulation or scenario-based learning exercises. It was clear that written information on OHA's website was not getting to these participants and such a channel was a barrier to communication, where other forms of communication would be a remedy to communication.

##### **Theme 3. One group did not like the framing of "difficult to reach" community**

One participant group had had a negative experience with a local government agency that reduced their trust in that authority. This agency had labeled the community as "difficult to reach", which the community interpreted as dismissive and uninformed. It certainly reduced trust and created a barrier to communication with that agency. It also influenced their

participants factor of perception around trusting government agencies in the future. This rift was not irreconcilable, as the community expressed a desire to build a mutual working relationship, a remedy to communication.

#### **Theme 4. Similar common places to get information**

Our participants expressed some common places to get information during emergencies. The local news, phone alerts, local community, friends and family, and social media were commonly mentioned as places to get information. Newer arrivals to the Portland area and those without English skills relied more heavily on their local community and friends and family for information.

#### Perception Related Themes

#### **Theme 5. Desire to learn and to be prepared**

All of our participants were very interested to learn more about wildfire and Cascadia subduction earthquake preparedness. Many participants had learned from the 2020 wildfire season that they needed to be prepared to leave their homes quickly. Although few participants had heard of the Cascadia subduction earthquake, they were eager to learn more about earthquake preparedness. Most participants were pleased that our project was starting the conversation of disaster preparedness in their communities, as disaster preparedness was something they knew they ought to be doing but had yet to start.

#### **Theme 6. No one knew that OHA deals with wildfires and earthquakes**

The participants were aware of communications from OHA around COVID but did not know OHA dealt with natural disasters. Some participants expressed confusion around OHA's involvement in disaster preparation, feeling it was not in the domain of health. This lack of knowledge of OHA's jurisdiction creates a Barrier to Communication, as these participants would not look to OHA during times of natural disaster.

#### **Theme 7. Participants trust their organizations**

When we asked who our participants go to in time of disaster, they often mentioned said the Community Partners that recruited them to the focus group. This finding was especially true for our religious-affiliated and immigrant/refugee participants for whom community organizations often served as a nexus for social connections. Because community partners are trusted and their community members are already engaged with the organization's activities, conveying information through community partners was understood by participants to be a more effective way of having communications seen, understood, and acted upon than conveying information from government agencies directly. For example, participants in one focus group reported feeling unprepared because they did not have supplies ready, and thought that if their community organization held a workshop on assembling a disaster preparedness kit they would be much more likely to have one.

### **Theme 8. Perceptions of OHA**

The participants for the most part had neutral to positive attitudes towards OHA. Some felt that OHA's response to COVID was too slow, but they also understood the climate of uncertainty that OHA was operating in at the beginning of the pandemic response. Our participants felt much more positive about OHA recent COVID actions.

### **Theme 9. Very little mention of government authorities**

Very few of our participants mentioned government authorities as an important source of disaster information. Some participants were open to government communication and felt that government leadership was important during natural disasters. At one focus group session, participants collectively characterized government agencies as their default source of disaster information, with community partners forwarding information from state, local, and regional governments to their members. This is one possible explanation for so few mentions of the government as a source; community members may simply find information shared through the news, friends, family, or community easier to access and digest.

### **Theme 10. Varying levels of risk perception and personal efficacy**

When talking about preparing for natural disasters, some participants expressed that you can never be fully prepared. Additionally, some seemed to wonder if anything productive can actually be done to stay safe from an earthquake, as if it is very severe any precautions would be meaningless. Some participants also expressed the importance of God's role in disasters. These views reflect low personal efficacy and a fatalistic risk culture. One community, in contradiction to comments from other groups, expressed confidence in handling natural disasters. This community showed high individual efficacy as one of the factors that influence perception. It seemed that this community's risk perception was informed by their past experience with threats to personal safety. These individual experiences built their resilience and confidence in facing natural disasters. However, overconfidence can be a barrier to action, if participants feel there is no need to prepare for natural disasters.

### Action Barriers and Remedy Related Theme

#### **Theme 11. Lack of knowledge to make decisions**

Although the participants wanted to be prepared, they were unsure of what to do during a disaster beyond initial steps. This lack of knowledge was a common **barrier to action** our team identified. Many participants, for example, knew to have their cars filled with gas in case of evacuation order, however, they did not know where the evacuation zone was or where they would meet after leaving their homes. This uncertainty was a cause of concern for many participants. For community focal points and community members alike, having clear procedures and advice specific to their area in place that they can easily find and access was a leading suggestion for how to improve disaster preparedness and response. Several community focal points expressed that having a set curriculum from a government agency on disaster preparedness would help them to pass information along more effectively to their

communities. As one participant put it, if the government tells them how to be more prepared, they would become more prepared.

## Section 4. Conclusion and Recommendations

The purpose of this project was to examine:

- (1) how diverse community groups prefer to receive information, and
- (2) how they prefer to be engaged in preparing for Cascadia subduction zone earthquakes and major wildfires.

A series of focus group discussions with the members of the African American and Black immigrant/refugee community was conducted to address the above questions. Eleven key themes were identified in the focus group narratives that are relevant to the (1) barriers for communication and the remedies for them, (2) factors that inform their perceptions that impact the effectiveness of the disaster communication and preparedness outcomes, and (3) barriers for taking actions in preparation and in response to disasters, and the remedies for them.

The groups we interviewed prefer to receive information in their native language. The messages have to be appropriate in other ways as well. Not every community checks the news, so they need to receive information from their community, not a government actor. Additionally, not every community wants to receive written information. Our participants also expressed a desire to be engaged about wildfires and earthquakes preparedness that is currently unmet. Engaging with these communities requires involvement of trusted community partners and a variety of learning environments.

Based on the findings of this project the project team recommends the following:

**Recommendation 1:** Develop and prepare translated information that can be shared with immigrant and refugee CBOs to disseminate to their community networks in their language. (This recommendation corresponds to the *narrative theme 1: Language is important*)

**Recommendation 2:** Develop and provide bilingual and bicultural information and training for respective communities by taking into consideration the community members' various modes and methods for learning preferences. (This recommendation corresponds to *the narrative theme 2: Multiple ways of learning preferred.*)

**Recommendations 3:** Create a more collaborative approach to involve the community from the onset so that OHA can build upon the knowledge of community members while strengthening trust within relationships. Be mindful of how the community is referred to or characterized.

(This recommendation corresponds to *the narrative theme 3: One group did not like the framing of “difficult to reach” community.*)

**Recommendation 4:** Develop simple communications for community-based organizations (CBOs) to share or use on their social media platforms. For example, WhatsApp was consistently mentioned as a platform for the immigrant and refugee population as a fast way to connect with the community. (This recommendation corresponds to *the narrative theme 4: Similar common places to get information.*)

**Recommendation 5:** OHA HSPR unit follow-up with each of the key community organizations and their members to provide an overview of Cascadia subduction earthquake. The seven community organizations that helped the project team to set up the focus group session are good groups to start and they are eager to be contacted. (This recommendation corresponds to *the narrative theme 5: Desire to be prepared.*)

**Recommendation 6:** When appropriate, include disaster preparedness as a part of OHAs branding to communities. Let the public know that OHA deals with natural disasters. (This recommendation corresponds to *the narrative theme 6: No one knew that OHA deals with wildfires and earthquakes.*)

**Recommendation 7:** Involve community-based organizations (CBOs) in the planning and execution of any communication, training or workshop. Capitalize on CBO trust and strong connections with the community. (This recommendation corresponds to *the narrative theme 7: Participants trust their organizations.*)

**Recommendation 8:** Continue to stay active in working directly with community-based organizations (CBOs). Be the trusted partner that they want to work with. (This recommendation corresponds to *the narrative theme 8: Perceptions of OHA.*)

**Recommendation 9:** Identify the key leaders of community-based organizations (CBOs), and also know what CBOs take the leadership roles in the communities. Develop a network of CBOs and CBO leaders that OHA can call upon to communicate and disseminate disaster information. (This recommendation corresponds to *the narrative theme 9: Very little mention of government authorities.*)

**Recommendations 10:** Offer reasonable tips on the things communities can do to be prepared for disasters. Be transparent and let them know the challenges of predicting outcomes of disasters, but emphasize the efficacy of being prepared. (This recommendation corresponds to *the narrative theme 10: Varying levels of risk perception and personal efficacy.*)



**Recommendation 11:** Provide basic preparedness information in a hands-on interactive manner. For example, developing a workbook that communities could complete together in a workshop type of setting where they can collectively identify specific evacuation zones or disaster meet-up locations will help people internalize the information. (This recommendation corresponds to *the narrative theme 11: Lack of knowledge to make decisions.*)

#### Subsection 4.1 Suggestion for Further Study

This project generated important information for OHA to consider when providing services to the BIPOC community and helped them become better informed and prepared for the disasters. We included seven very distinct community groups that represent the African American and Black immigrant/refugee community members, and their feedback was valuable and informative. It should be noted, however, that the focus group participants only represent a small fraction of the entire African American and Black immigrant/refugee community, and by no means represent the whole community. Also, due to the time and other constraints, the project focused only on the African American and Black immigrant/refugee community, and did not collect information from other BIPOC community members.

Therefore, in order for OHA to gain a more comprehensive understanding of the disaster communication and preparedness needs among the BIPOC communities in Oregon, we suggest that further studies be conducted to solicit feedback from BIPOC communities other than the African American and Black immigrant/refugee community that was included in this study. It may also be important to consider how to gain similar insights from other marginalized communities, such as the disability community. Disability data was not collected in the demographic information on this project.

Another possible further study includes steps where OHA implements the recommendations presented by the current focus group participants in this study, and then go back to the same African American and Black immigrant/refugee community to get further feedback on the effectiveness of OHA's actions. Developing and institutionalizing this kind of feedback loop with the communities of interest would help OHA in developing long-term relationships and trust with the community members.

Communication to improve disaster preparedness, and to mitigate damages during times of natural disaster can be challenging. It is important for governmental agencies, such as OHA, that offer disaster response and preparedness programs to understand how people from diverse communities prefer to receive and process information related to disasters such as earthquakes and wildfires. This project shed light on how one of the BIPOC communities, namely, the African American and Black immigrant/refugee community's needs, how they prefer to receive disaster information, and how they prefer to engage with government entities in disaster preparedness and response. It is our hope that the result of this project, together

with potential further studies by OHA will help the BIPOC and other underrepresented communities to be better prepared for disasters.

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## **PSU Team Member Biographies**

### **Masami Nishishiba, Ph.D.**

Masami Nishishiba is Department Chair, and Professor in the Department of Public Administration at the Mark O. Hatfield School of Government, Portland State University (PSU). She also serves as the Interim Director of the Nonprofit Institute. After the 3.11 Great Tohoku Tsunami and Earthquake, Dr. Nishishiba, together with Dr. Hiro Ito from the Department of Economics at PSU, she established Initiative for Community Disaster Resilience (ICDR) to provide a forum for practitioners and academics to share lessons learned from various disaster experiences from around the world. Her research interests include issues of social diversity, civic capacity, government-citizen interface, intercultural communication and comparative local government.

### **Nhu To-Haynes, MPA HA**

Nhu To-Haynes is a senior fellow with the Center for Public Service and adjunct instructor with the Oregon Health Sciences University and Portland State University School of Public Health. Nhu is currently a public health consultant and has worked with the public sector for over 25 years in the area of outreach, training and health equity.

### **Carl Christiansen, MPA**

Carl Christiansen is a graduate research assistant with the Nonprofit Institute and a doctoral student of Public Affairs and Policy at the Hatfield School of Governance. Carl's area of focus is nonprofit organizations, particularly how they are governed and operated. His current research interests are centered around frontline worker burnout, how organizational policies exacerbate burnout, and collaborative governance solutions to systemic burnout.

### **Cameron Simmons, MPP**

Cameron Simmons is a recent graduate from Portland State University's Master of Public Policy program specializing in policy analysis and environmental policy, especially issues pertaining to sustainability and healthy institutions. Cameron is currently engaged as a Hatfield Resident Fellow at PSU's Center for Public Service.

## Appendix A. Focus Group Protocol

### Facilitator Opening:

Welcome Everyone!

Thank you for taking the time to participate in this focus group. My name is \*\*\*\* and I am a researcher/graduate assistant with Portland State University's Center for Public Service, working on behalf of the Oregon Health Authority. We have scheduled 90 minutes to have our conversation with you all today. This time will go by fast and we want to hear from everyone. We have several questions that we want to get your thoughts on. If you have something you want to share please keep in mind that we will want to give space for everyone to speak. At the end of our time today, we want to say thank you by sending you a \$50 Visa gift card. Does anyone have any questions before we start?

**Facilitator Note:** Field any questions that people have. Keep it brief. If you are unsure, let them know that we can answer additional questions at the end of the session.

**Introductions:** We want to welcome everyone again and let's get started by doing a quick round of introductions.

I'm going to go through my participant list and we will use this time to do a quick microphone check as well. When I call your name please say hello and tell the group your first name (if you go by a different name please let us know) and whether you prefer coffee or tea.

**Facilitator Note:** Go through the list and keep folks moving. This is a way for you to familiarize yourself with the names and quickly get participants comfortable with talking.

### Focus Group Questions

1. In the late summer of 2020 Oregon experienced a record number of wildfires across the state. There were several days and nearly a week when the air was hazardous in many communities. **How did you and your family learn about the wildfires that were happening in your community?**

News, got bad, cover vents, intuitively done.

**Facilitator follow-up:** What do you remember the news saying (what was the message)?

**Facilitator follow-up:** What advice did you follow based on the news/message?

2. There were a lot of messages shared in the news about smoke. **What information about smoke-related air quality would help keep you safe?**

**3. How prepared do you feel if a wildfire event were to happen tomorrow?**

**Facilitator follow-up:** For those of you who feel prepared or ready, can you tell me what factors contributed to your preparedness?

**Facilitator follow-up:** For those of you who DO NOT feel prepared or ready, can you tell me what would make you feel more prepared or ready?

**4. Who or what is the most trusted source of information for you and your family during times of natural disaster?**

**Facilitator follow-up:** Was this person or group giving out information about the wildfire? What makes that person or group trustworthy?

**\*Transitions to Cascadia Subduction Zone questions\***

Thank you for answering those questions. We still have a few more that we want to get through today, so I'm going to move us into the next topic. What we want to discuss next is earthquakes. Specifically, the Cascadia Subduction Zone earthquake. Has anyone heard of Cascadia before? **Facilitator note: Pause and see if anyone wants to share what they know.**

**Share the following about Cascadia:**

- Bigger than earthquakes you've heard about
- People may not have internet access or cell phone use
- There may be flooding in many areas and roads may be blocked
- Standard disaster services might be delayed

**5. I know this is a lot of information about a new topic for some of you. Facilitator: How prepared do you feel if an earthquake such as this were to happen tomorrow?**

**Facilitator follow-up:** For those of you who feel prepared or ready, what factors contributed to your preparedness?

**Facilitator follow-up:** For those of you who DO NOT feel prepared or ready, what would make you feel more prepared or ready?

6. Now that you've learned a little bit about the topic of Cascadia Subduction Zone earthquake . . . **Facilitator: How would you want to learn more about this topic and how this would affect you and your family?**

**Facilitator follow-up:** Who or where in the community would you want to get this information from?

**Facilitator follow-up:** Would it help to have this in different languages? Is it too technical?

7. People learn in a lot of different ways, some by reading, watching a video or talking things through in a group. **Facilitator: What are some ways you would want to learn more about the topic Cascadia Subduction Zone, if at all?**

8. Now that you've learned about fires and earthquakes, we've been doing this work on behalf of the Oregon Health Authority. Some of what they do. We want to know your thoughts on the OHA. **Facilitator: Have you seen disaster information from OHA?**

**Facilitator follow-up:** For those of you that have seen information from Oregon Health Authority, what did you think about it?



## Appendix B. Focus Group Protocol

Dear Community Partner,

This letter of participation is to inform you of an opportunity for your organization and community to participate in focus groups discussing the topics of communication and education regarding earthquakes and wildfires. Attached you will find additional information about how to set up a focus group for your community.

Project Background: OHA Communication of Cascadia subduction zone and wildfires

This project aims to capture ways in which African American and Black immigrant/refugee populations want to receive information and education about Cascadia subduction zone earthquakes and major wildfires. This evaluation is conducted by the Center for Public Service of Portland State University, for the Oregon Health Authority.

Investigators: Masami Nishisiba, Nhu To-Haynes, Carl Christensen, Cameron Simmons,

Q1.1 We want to learn about the need for information and communication about Cascadia subduction zone earthquakes and major wildfires.

The Portland State University's Initiative for Community and Disaster Resilience within the Center for Public Service has been contracted by the Oregon Health Authority to identify (1) how diverse community groups prefer to receive information, and (2) how they prefer to be engaged in preparing for Cascadia subduction zone earthquakes and major wildfires.

Reaching out to a broader public to share information related hazards such as earthquakes and wildfires is challenging. The information shared can be overwhelming for many people to process and they may not know how to respond to the information they received. More recently, COVID-19 has created additional challenges in outreach due to the public health, economic and behavioral health impacts of the pandemic. It is also more challenging to outreach, share information and engage members of traditionally marginalized community such as BIPOC (Black, Indigenous, People of Color) and disability community.

For governmental and community disaster response and preparedness programs that focuses on earthquake and wildfire, it is important to understand how people from diverse community prefer to receive and process information related to earthquake and wildfire preparedness, particularly under the "new normal" with the impact of the pandemic.

This project aims to gather information from diverse community members to identify effective ways to share information and engage them in disaster preparedness.

## Appendix C. Project Recruitment Letter

Oregon Health Authority – Disaster Communication

Focus Group Consent Form

### Introduction

You are being asked to participate in a study that led by Dr. Masami Nishishiba, Ph.D., Associate Professor of Public Administration in the Center for Public Service at Portland State University. The community assessment study aims to examine how a diverse range of communities respond to disaster communication from the Oregon Health Authority (OHA). You are being asked to participate in this Focus Group because you are an important constituent to OHA.

This form will explain the research study and will also explain the possible risks as well as the possible benefits to you. Any questions can be directed to Dr. Nishishiba by email (nishism@pdx.edu) phone (503-725-5151) or to Nhu To-Haynes by email (tohaynes@pdx.edu), or in person at the time of Focus Group.

### What is a Focus Group?

A Focus Group is a facilitated discussion using key questions among a small group of people. Participants will be able to exchange ideas in a conversational format within the scope of the study, the time allotted, and basic group protocol.

### Basic Group Protocol

By consenting you agree to participate in the Focus Group within the following basic group protocol.

1. Respect everyone and all opinions.
2. Equal opportunity to participate.
3. One person talks at a time.
4. Practice active listening.
5. Keep the discussion focused on the topic, rather than individuals.

### What will happen if I decide to participate?

If you agree to participate, you will be invited to participate in a Focus Group. The Focus Group will include questions about your experiences with natural disasters, how information was communicated with you, and your preferences for receiving disaster communication.

### How long will I be in this Focus Group?

The Focus Group will take a total of approximately 90 minutes for one session. The Focus Group will be audio recorded with consent from the participants. You can ask for the recording to stop at any time, and for any recording to be deleted.

What are the risks or side effects of being in this study?

There are risks of possible loss of privacy and confidentiality associated with participating in a research study. We will ask to record this session so we can transcribe it for analysis. The risk is if these files were to be accessed by someone from outside the team. The recordings, notes, and transcripts will all be on password protected servers. For more information about risks and discomforts, ask the investigators.

What are the benefits to being in this study?

Your participation will help better prepare OHA to communicate with Oregonians in the event of a natural disaster. We are also offering each participant a \$50 Visa gift card as a thanks for your time.

How will my information be kept confidential?

We will take measures to protect the security of all your personal information. We will not share your name or confirm that you have participated in the study if asked. Your name will not be included in any reports or publications. Quotes or excerpts from the Focus Group maybe included in reports or publications, but with no details that could allow others to identify you. Notes and recordings from the Focus Group may include your name, but these materials will not be available to anyone except the research team. Your name will not be used in any published reports related to this study

Information contained in your study records is used by study staff only. The Portland State University Institutional Review Board (IRB) that oversees human subject research and/or other entities may be permitted to access your records, and there may be times when we are required by law to share your information. It is the investigator's legal obligation to report child abuse, child neglect, elder abuse, harm to self or others or any life-threatening situation to the appropriate authorities, and; therefore, your confidentiality will not be maintained.

Can I stop being in the study once I begin?

Your participation in this study is completely voluntary. You have the right to choose not to participate or to withdraw your participation at any point in this study without penalty or loss of benefits to which you are otherwise entitled.

Whom can I call with questions or complaints about this study?

If you have any questions, concerns or complaints at any time about the research study, contact Dr. Nishishiba will be glad to answer them at 503-725-5151.

Whom can I call with questions about my rights as a research participant?

If you have questions regarding your rights as a research participant, you may call the PSU Office for Research Integrity at (503) 725-2227 or 1(877) 480-4400. The ORI is the office that supports the PSU Institutional Review Board (IRB). The IRB is a group of people from PSU and the community who provide independent oversight of safety and ethical issues related to research involving human participants. For

more information, you may also access the IRB website at  
<https://sites.google.com/a/pdx.edu/research/integrity>.

#### CONSENT

You are making a decision whether to participate in this study. Your signature below indicates that you have read the information provided (or the information was read to you). By signing this consent form, you are not waiving any of your legal rights as a research participant.

You have had an opportunity to ask questions and all questions have been answered to your satisfaction. By signing this consent form, you agree to participate in this study. A copy of this consent form will be provided to you.

\_\_\_\_\_  
Name of Adult Subject (print)      Signature of Adult Subject      Date

#### INVESTIGATOR SIGNATURE [TO BE SIGNED BY PSU]

This research study has been explained to the participant and all of his/her questions have been answered. The participant understands the information described in this consent form and freely consents to participate.

\_\_\_\_\_  
Name of Investigator/ Research Team Member (type or print)

\_\_\_\_\_  
(Signature of Investigator/ Research Team Member)      Date