

Disabilities, Access and Functional Needs Inclusive Planning: Summary of Findings for the City of Portland and Clackamas, Washington, Multnomah, and Clark Counties

FINAL REPORT

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RDPO

Regional Disaster Preparedness Organization

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INTRODUCTION

Planning for and with people with disabilities and others with access and functional needs (shortened to PWD/AFN or DAFN) is an important component in the development and execution of emergency management plans, policies, and procedures. Local jurisdictions need to incorporate the needs of PWD/AFN into their planning activities and planning documents. **The Regional Disaster Preparedness Organization (RDPO) has sought assistance in evaluating how its jurisdictional partners are meeting the needs of PWD/AFN via their existing emergency management programs.**

This report includes the assessment team's findings for all participating jurisdictions: Clackamas County, Washington County, City of Portland, Multnomah County, and Clark County. The report is organized to first describe the consultant's methodology in *Methodology and Process*, utilizing three main inputs: an online survey, in-person group interviews, and plan reviews. The next section, *Findings and Recommendations*, first provides a summary of regional findings and recommendations then provides separate and specific recommendations for each county and the City of Portland. Finally the *Website Review* section describes the evaluation and finding of the web content reviewed, by jurisdiction.

METHODOLOGY AND PROCESS

The consultant team used a multiphase evaluation and assessment process that sought to solicit both quantitative (surveys) and qualitative (plan reviews, website reviews, and interviews) information to inform the assessment.

LITERATURE REVIEW

The team conducted a comprehensive review of the literature, promising practices, and lessons learned from the field. Two products were generated as a part of the literature review. First, the *Summary of Guidance, Best Practices, and References* that provides a snapshot into the state of planning for and with PWD/AFN in emergency management across the nation. The *Summary of Guidance, Best Practices, and References* document should be referred to for additional information about best practices, guidance, and the laws and regulations related to inclusive planning and meeting the needs of PWD/AFN in emergency management. Second, a Microsoft Excel-based evaluation matrix was created to standardize the plan assessment conducted by expert reviewers. The matrix was created using best practices, current guidance documents, and subject matter expertise. The plans were then reviewed and cross-walked to the evaluation matrix.

STAKEHOLDER LIST DEVELOPMENT

Together with the key project representatives, a stakeholder list was developed. Criteria for inclusion was broad and included, for example, governmental agencies and non-governmental stakeholders doing work related to emergency management, human services, alert and notification, emergency public information, transportation and transit, public health, disability advocacy, and sheltering and mass care. The stakeholder list included over 190 individuals and organizations.

ONLINE SURVEY

All stakeholder participants were asked to complete an online survey prior to the interviews to gather quantitative capabilities information regarding the state of integrating PWD/AFN into emergency management planning in the RDPO region.

The survey asked 36 questions and a total of 101 respondents participated. Survey respondents serve in part or in whole, the RDPO region and are from government and non-governmental organizations, figures 1 and 2. The survey helped to inform the in-person interview process and is incorporated into the findings presented below.

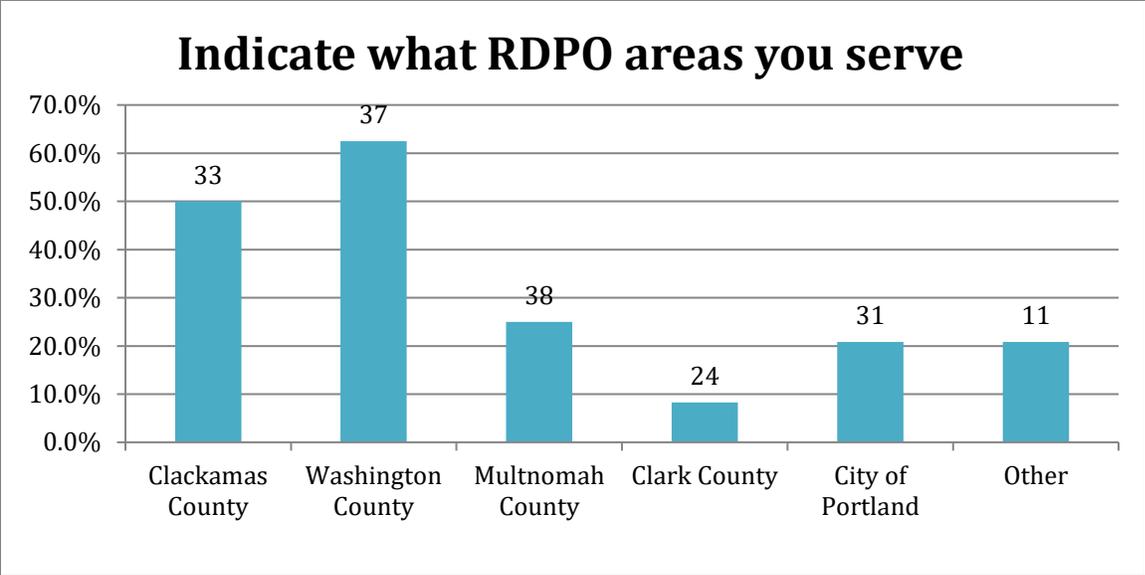


Figure 1: RDPO service area.

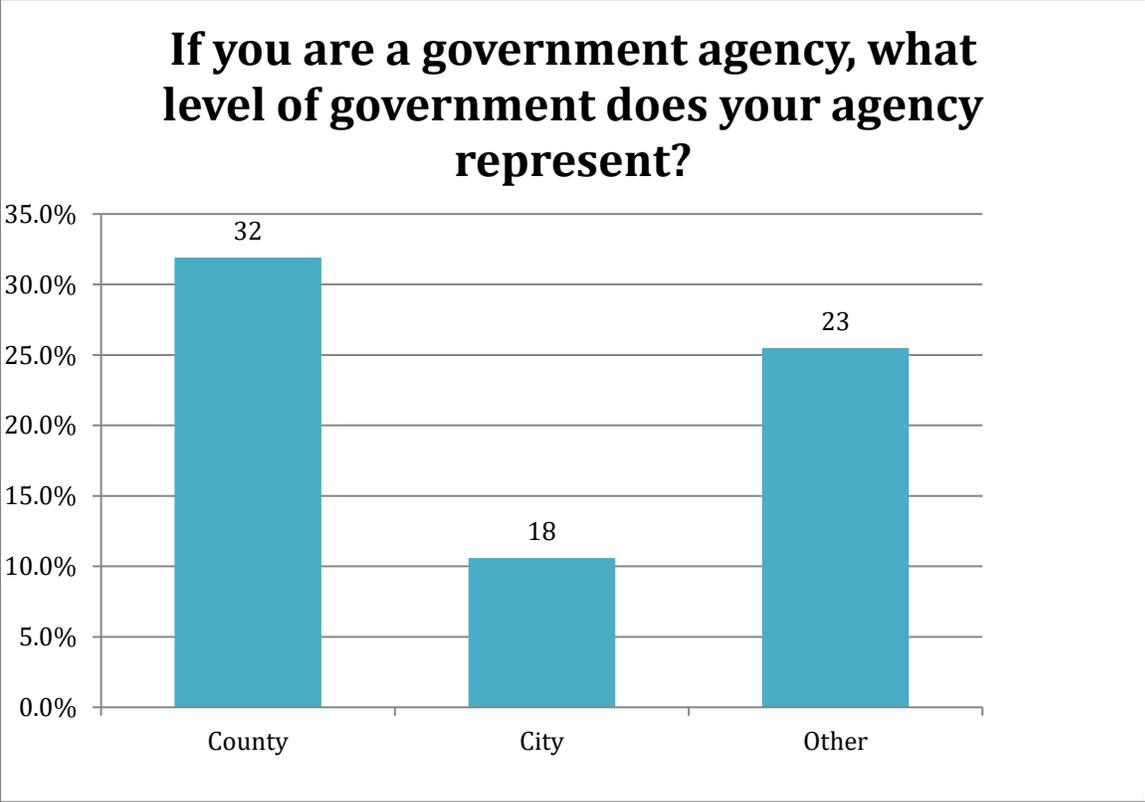


Figure 2: Level of government represented

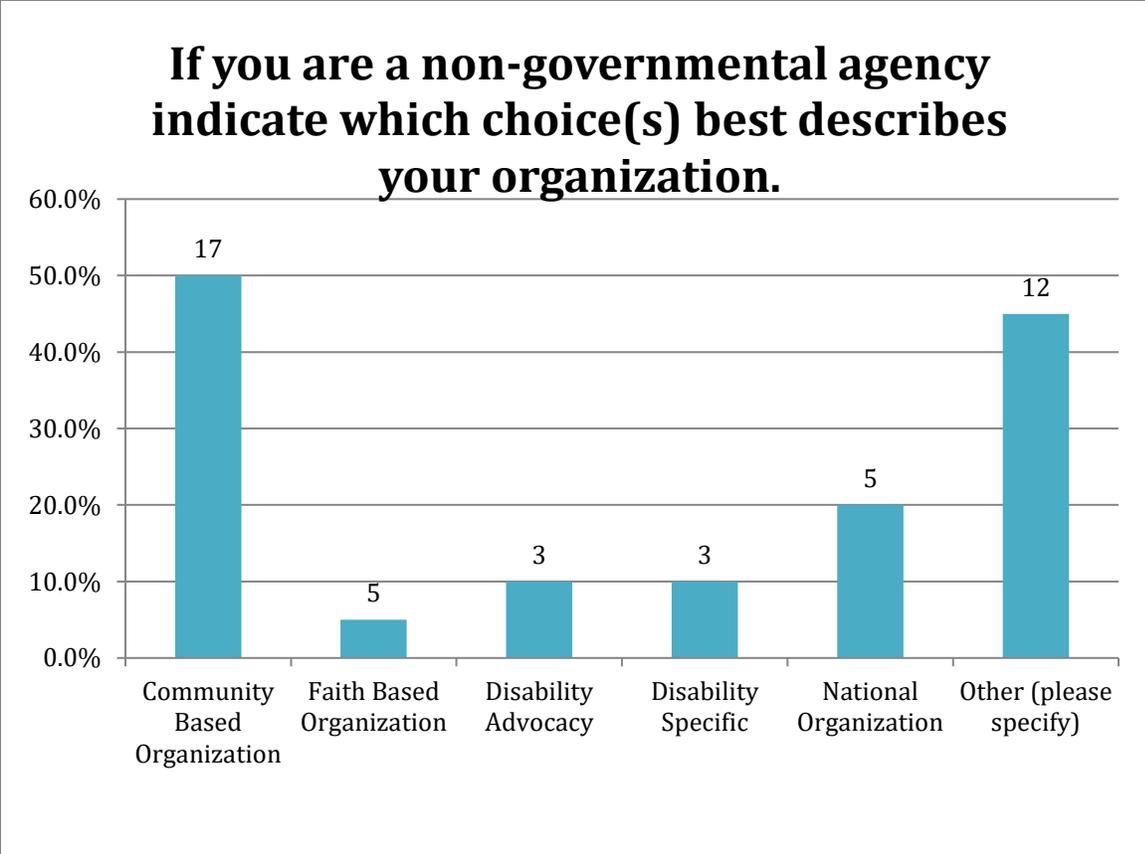


Figure 3: Type of NGO represented

IN-PERSON INTERVIEWS

In-person interviews were conducted in two phases. Over three days in May, a three-person interview team met with 25 key stakeholders representing emergency management, human services, and access and functional needs advocacy and service delivery groups from Clackamas and Washington counties. Over four days in September, the same interview team met with 33 stakeholders representing the City of Portland, Multnomah County, and Clark County. An additional three interviews were conducted via telephone to accommodate individuals who were unavailable during the on-site interview period. The interviews sought to discover the capabilities of each jurisdiction and the larger RDPO region regarding meeting the needs of individuals with disabilities and others with access and functional needs. The interviews and capabilities assessment process promoted collaboration by building trust, identifying strengths, and soliciting ideas. The interviews were an opportunity to identify additional stakeholders who should be engaged in the project and future access and functional needs planning efforts in the region. Additionally, the interviews served as a network building and collaboration activity themselves. During a number of sessions, participants were able to answer each other’s questions, provide links to additional resources, and agree to work together to tackle problems identified during the interview.

PLAN REVIEW

Plans serve as the foundation for each jurisdiction’s emergency management activities and contain key information about the organization, policies, and procedures. As such, these plans need to accurately reflect the legal requirement for accommodating individuals with disabilities and the current guidance and best practices pertaining to meeting the needs of people with access and functional needs. Each jurisdiction was asked to provide relevant plans and supporting documents for review. An expert reviewer using a standardized evaluation matrix reviewed provided plans. The matrix was created using best practices, current guidance documents, and subject matter expertise.

WEBSITE REVIEW

The RDPO provided a list of 18 websites it wished to have reviewed and evaluated for accessibility. First, a content review was performed by a subject matter expert who visited the sites with the perspective of a member of the public. The reviewer took into account the following:

- Is the site “inviting” to a person and make a person feel as if information exists to address their needs, questions, and concerns?
- Does the site direct people easily to find that information?
- Is the information easily organized and readily available in formats that can be used by a variety of people?

Second, a more technical compliance assessment was conducted that went deeper past the less tangible “feel and invitation” of the site and addressed actual elements resulting from the programming and development side of websites. This review focused on the compliance and conformity of a website to laws and regulations governing accessibility in design to ensure end user access. It also identified corrective measures and resources for those who will be making the technical corrections.

A review of either type represents only a snapshot in time given that website content and design is an ever changing environment and this is especially the case when a website provides emergency messaging. But the findings of such a snapshot can provide conclusions that can be considered and provide the basis for decisions about moving forward toward a goal of accessibility that provides the public with important emergency information and resources.

For ease of use, the website evaluation content is provided as a standalone section rather than breaking up the findings by each jurisdiction.

FINDINGS AND RECOMMENDATIONS

Overarching findings and recommendations, by subject area and by jurisdiction, are presented below. Regional findings and recommendations are presented in addition to findings and recommendations for the City of Portland and Clark, Clackamas, Multnomah and Washington counties.

For further guidance on addressing and implementing the recommendations, the five jurisdictions can use the *Summary of Guidance, Best Practices, and References*.

REGIONAL FINDINGS

While the region is self-admittedly “short on large disasters,” the *New Yorker* article, “The Really Big One,” published July 20, 2015, has brought large-scale disasters to the forefront of public discussion in and around Portland. Though the article has revived public awareness of the earthquake threat, emergency managers and their partners have been working together to prepare since the 1990’s via the Regional Emergency Management Group (REMG), Regional Disaster Preparedness Organization (RDPO), Cascadia Regional Workgroup (CREW), and other collaborations. This renewed discussion, together with the June 2016 Cascadia Rising exercise, a recent landslide, a mass shooting, Portland’s Johnson Creek flooding, and some snow events were all cited as learning experiences that informed the need to better meet the needs of PWD/AFN.

The overwhelming majority of those who participated in this assessment process were excited to talk about what their organizations were doing to plan for and with PWD/AFN and to share their visions of how they would like to see their plans and processes improved. Numerous interviewees were eager to see the results of this assessment and begin discussing next steps in moving forward with the enhancement process.

Many of the non-governmental organizations (NGOs) working in the area are regional in nature, spanning most or part of the RDPO coverage area. This gives them a unique perspective to compare and contrast their experiences dealing with and planning in different counties, while focused on the same planning issues.

Overall, jurisdictions in the RDPO are doing good work in the area of integrated planning and meeting the needs of PWD/AFN. Jurisdictional emergency managers truly understand the need to not just say but actually do this and are deeply engaged in the work. All evaluated jurisdictions have undertaken projects (prior to this effort) and engaged in partnerships to better meet the needs of the whole community, personnel are well engaged with community partners and stakeholders, and these efforts are evident when meeting with stakeholders. Though varied between the jurisdictions, as a whole, the RDPO is further along in their planning than representative samplings of their peer jurisdictions across the country. The next steps include drilling down into planning via workshops or other training and exercise strategies to better understand the concepts of operations, roles and responsibilities, and resource requirements, then updating plans to reflect the lessons learned and address identified gaps identified through the training and exercises process.

The Portland Metropolitan Area covers four counties, in two states. Populations move freely between jurisdictions daily for work and recreation. As has been seen during winter weather emergencies, it is easy for people in this metropolitan area to be unable to return to their homes due to road conditions. The larger the emergency the more likely that regional response coordination will be necessary. While individual jurisdictional plans are the foundation of preparedness, it is recommended that the counties within the region develop agreements and plans to facilitate and coordinate a region wide response.

PWD/AFN Issues Understanding and Planning

The majority of survey respondents (75, 77%) indicated they were somewhat familiar with the concept of integrating PWD/AFN into emergency management activities.

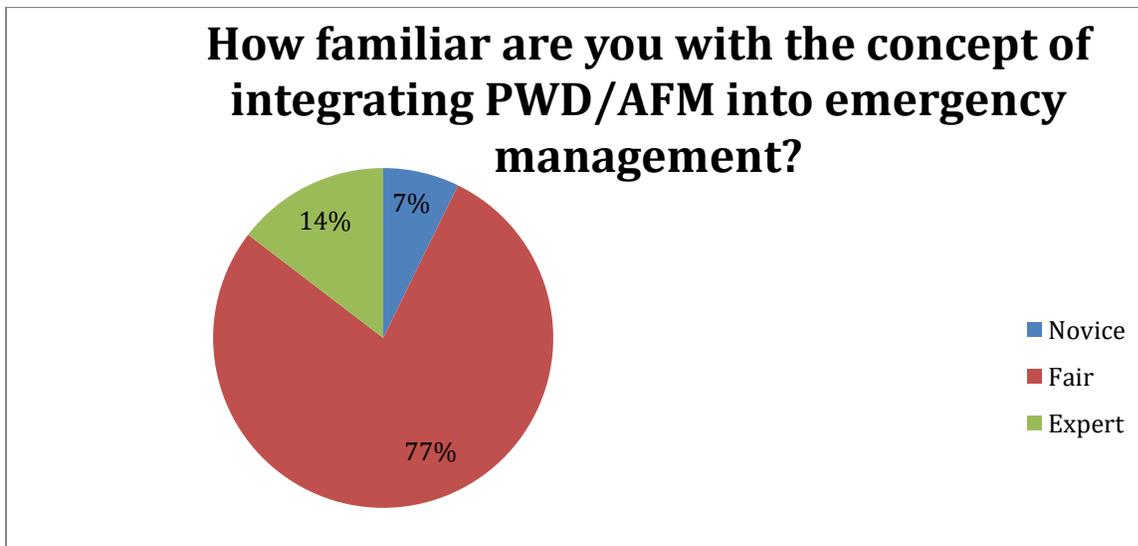


Figure 4: Familiarity with Integrating PWD/AFN into Emergency Management

Most (63, 64%) knew there are legal obligations related to meeting the needs of PWD/AFN, but were unsure how they apply, and (27, 28%) indicated they knew the specific legal obligations and how they apply. When asked, however, what factors limit integrated planning, responses were distributed across all answer choices. Lack of understanding of the issues and resource limitations (i.e., staffing, funding, and time) were reasons selected by more than half of respondents.

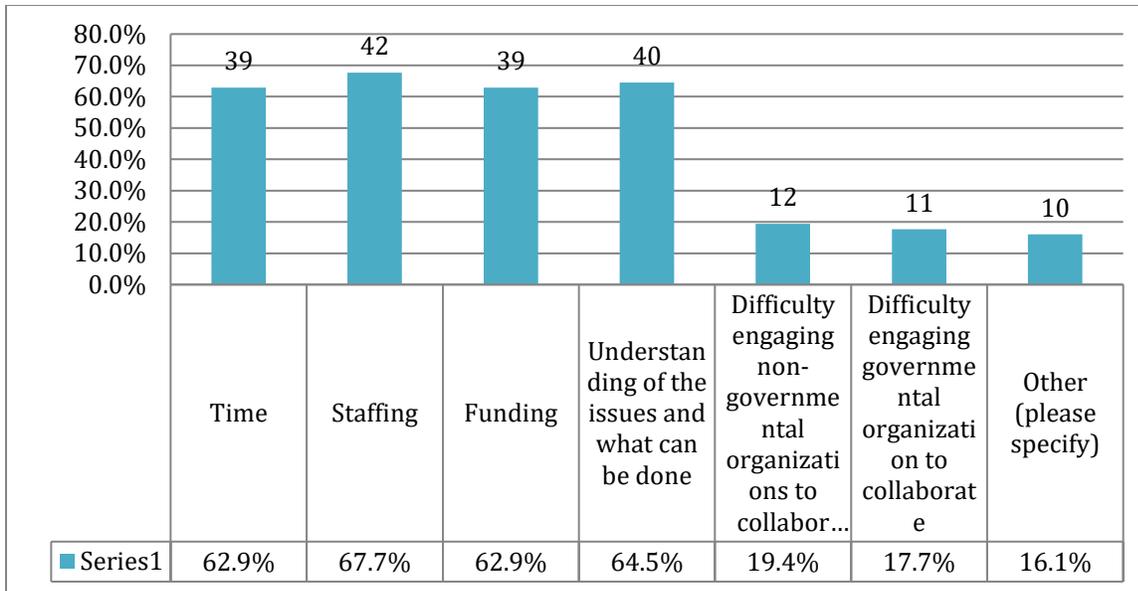


Figure 5: Factors limiting integrated planning

Nearly all interviewees cited feeling both an ethical and legal obligation to engage in planning to meet the needs of PWD/AFN. All interviewees in emergency management roles had read ADA-related litigation summaries or commentary and indicated they were striving to find ways to meet legal requirements.

Evacuation and Transportation

Evacuation is the movement of people from an area of danger to one of safety. The scope, scale, and timing of evacuation is hazard specific and can involve just a handful of people or whole jurisdictions. While earthquake is considered the most significant natural hazard in the RDPO region, a number of other natural and man-made hazards including, but not limited to, landslide, chemical incident, and severe weather could require evacuating some number of citizens. Additionally, nearly every hazard scenario requires some form of emergency transportation, be it the movement of resources from one location to the other, the movement of people, or the movement of first responders. Ensuring that PWD/AFN have equal access to the evacuation and transportation resources required to stay safe and healthy in an emergency is required by law and enshrined with the emergency management mission.

Across the region, personnel from counties, cities, and NGOs, expressed concerns about access to roads and bridges after a large earthquake along the Cascadia subduction zone. Such damage would impede their ability to get to work, provide essential services, and to perform their job duties completely. For some first responders, such as firefighters, procedures have been discussed that would allow job sharing when a responder is not able to activate at their duty station. Many interviewees stated that in a large-scale event, it would take so much time to muster a coordinated response that PWD/AFN would ultimately suffer the greatest impact. All respondents who echoed this sentiment also stated it was an outcome they were unhappy with and would work to avoid.

When asked if their organization had procedures related to accommodation in evacuation and transportation, of the 59 respondents who operate in that area, 30 indicated their organization had at least some procedures. Mechanism(s) for providing assistance to individuals who cannot evacuate on their own was the most common accommodation listed. The procedure examples provided in the survey were not usually found within planning documents, suggesting that plans don't completely reflect planned strategies and concepts of operations.

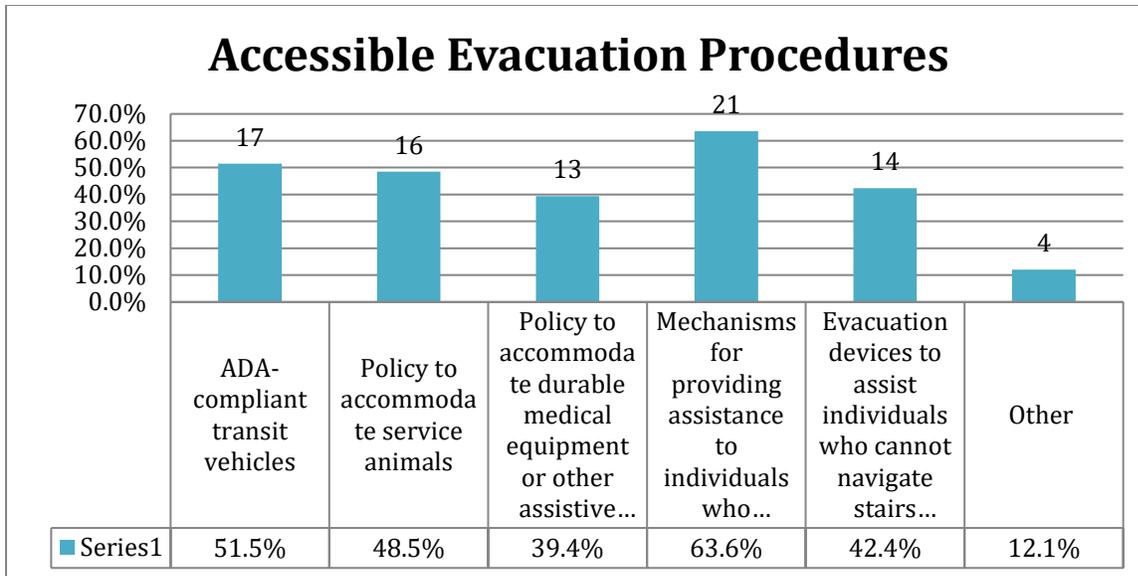


Figure 6: Accessible Evacuation Procedures

Interviewees from all jurisdictions cited evacuation and transportation as an area needing additional planning, which is consistent with the plan review findings. A number of transit organizations operate in the region, only a few of which participated in the interview process. The largest of these, TriMet, did not participate despite many attempts to engage them in the process. As a result, transportation findings are incomplete. Engagement with TriMet is required to fully understand how emergency transportation for the whole community, including PWD/AFN, will be executed. The City of Portland and all engaged counties possess limited transit assets themselves so will be dependent on other organizations, including non-governmental organizations, transit services, and private transit agencies, to support the evacuation and transportation needs of PWD/AFN. Respondents reported fearing that, in a regional event, Portland and other urban areas would absorb most of TriMet resources, leaving many of their residents, including PWD/AFN, without access to transportation.

Though it is difficult to do without counterpart engagement, the jurisdictions should try to work with transit providers to better understand the resources, priorities, and plans for service delivery. Facilitated workshops and tabletop exercises can help all parties better understand plan strengths, gaps, and resource requirements. Once gaps and resource requirements are established, the jurisdictions will be in a better position to meet the needs, whether it be via mutual aid, resource acquisition, mitigation, or other approach.

Mass Care and Shelter

Plan reviews and interviews found that mass care and sheltering is the area where planning is most robust within the region. Washington and Clackamas plans include strategies to facilitate physical accessibility, including assessing possible locations and acquiring equipment to retrofit locations, and programmatic access, including translating communications materials. Portland and Multnomah have determined that Multnomah will lead county-wide shelter planning, including the City of Portland. The Multnomah County mass shelter planning process is currently underway. The plan is scheduled for completion in September 2017. Clark County needs to clarify their shelter plan and codify it within appropriate documents.

In the survey, of organizations that have a role in mass care and shelter, more than half (33) indicated they had at least some documented procedures for accommodating PWD/AFN. ADA-compliant shelter space was the most common accommodation indicated. Much of the planning is in draft form, however, and jurisdictional emergency management and human services agencies and organizations should formalize these plans and then move forward in testing the planning concepts via exercises. Additionally, planning should ensure that shelter spaces and shelter-based programs are truly fully accessible under ADA.

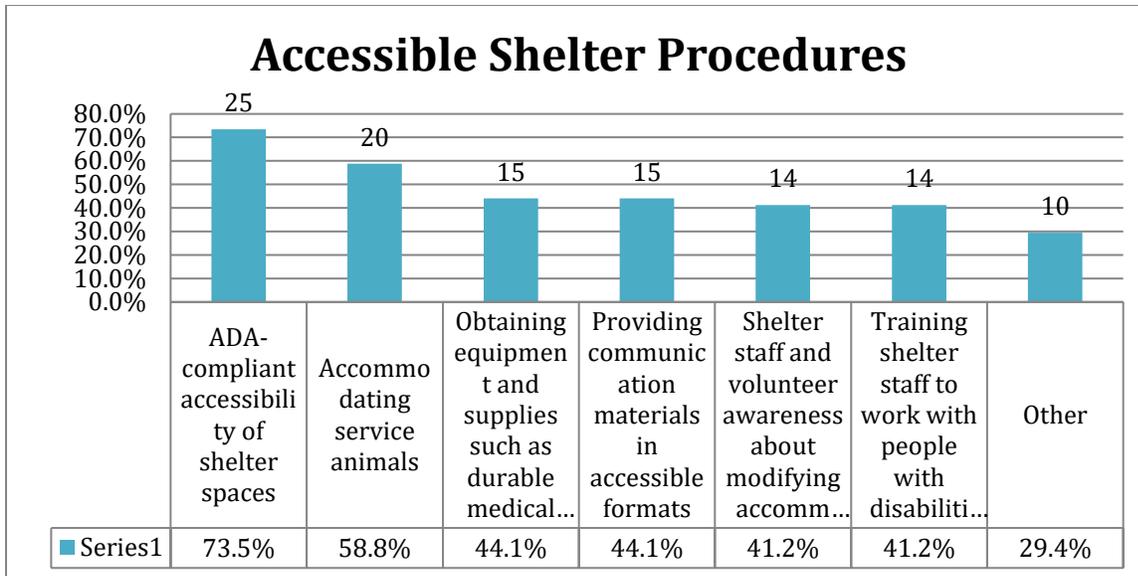


Figure 7: Accessible Shelter Procedures

Alert and Warning and Public Information

More than one third of respondents (32, 36%) said their organization had a role in emergency alert and notification of PWD/AFN but did not document procedures related to distribution. Another third (30, 34%) said they had some procedures but they weren't documented. Another approximately 17% (15) said they had well developed and documented procedures, as seen in Figure 8 below. Of those who listed example procedures, most cited a telephone-based system including call lists, reverse calling (e.g. CodeRed), and automatic telephone notification.

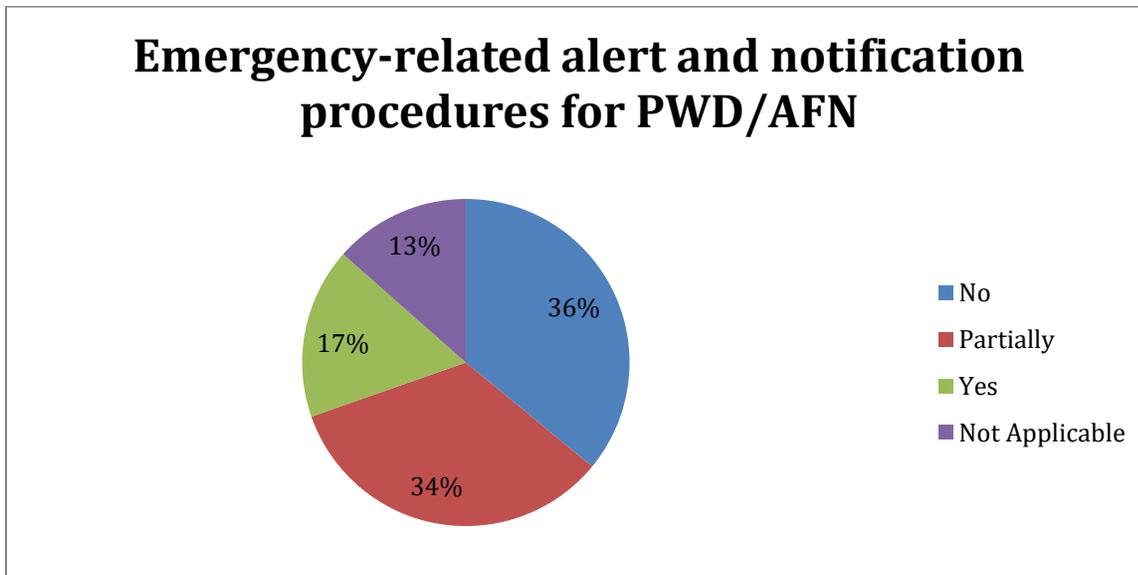


Figure 8: Does your organization have documented procedures for the distribution of alert and notification for PWD/AFN

When asked if organizations used or maintained a registry or list to help identify PWD/AFN, responses were mixed. A little over a quarter of respondents (26, 27%) indicated they were unsure. One quarter (24) said they did not have a registry or list and nearly 25% said they did have a list or registry that was actively used. The issue of using a registry was one of extensive discussion during the interviews.

Most jurisdictions in the region participate, in some form or another, in PublicAlerts. From a link on publicalerts.org, users can click through a series of pages to a self-registration site that permits them to enter contact and other information and subsequently receive emergency alerts and notifications. The underlying service providers for these self-registration based emergency alert systems vary by jurisdiction. For example, Multnomah County uses Everbidge, while Clark County uses HyperReach. While each platform has different capacities and capabilities, all permit users to self-identify as having additional needs that may require support in an emergency. The approaches to and planned uses of the self-identified of additional needs information varies by jurisdiction. Representatives from the City of Portland, Multnomah County, and Clark County voiced interested in building up the self-registry functionality of PublicAlerts, hoping that a more robust registry would assist with response efforts in an emergency.

Though a great idea in theory, registries require significant resources to establish and maintain and research from across the nation indicates they have limited success. The assessment team does not recommend individual jurisdictions or the larger RDPO region continue to invest in using the additional needs self-registry element of PublicAlerts or any other similar registration system. Because many PWD/AFN who may require additional services or support during an emergency are already engaged with service delivery agencies, it is recommended that emergency managers work with human service agencies, community based service organizations, and other groups who provide services to/and or advocate on behalf of PWD/AFN to access their known client lists or networks for the purpose of message dissemination. Often, this approach can be an effective way to reach some of the highest risk community members. By no means do all PWD/AFN receive services and this process does not account for people who develop AFN as a result of the disaster, but this strategy can be more effective than attempting to maintain a voluntary registry.

More organizations indicated they have procedures for disseminating emergency-related public information than not. More than half (51, 53%) said they had either robust or at least some procedures. The remainder either cited having no procedures (28, 38%) or had no role in this area (8, 9%). Of those who indicated they had procedures, most listed interpretation and/or translation.

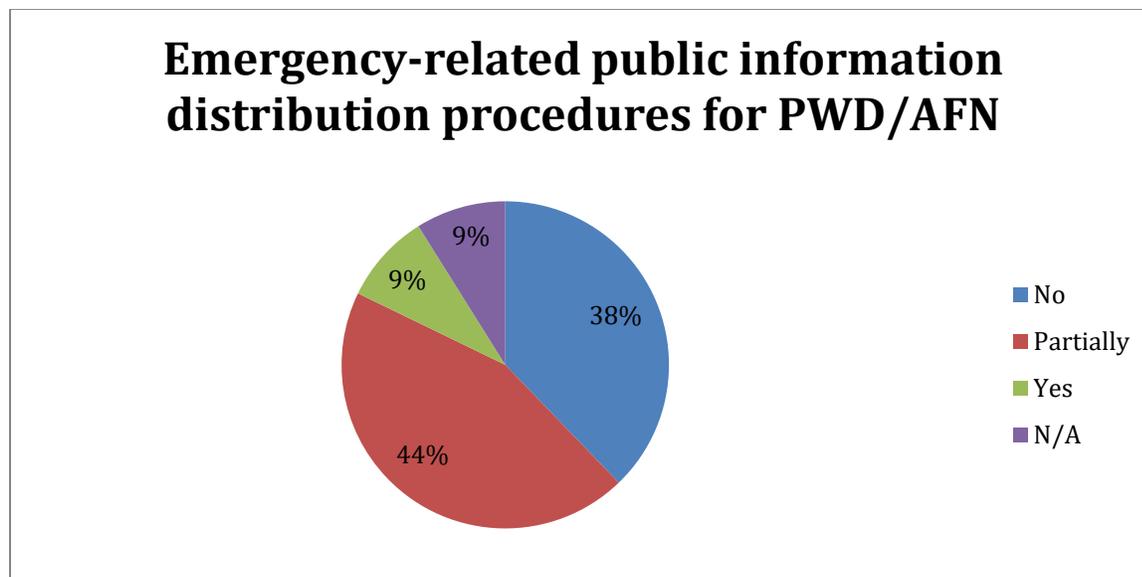


Figure 9: Does your organization have documented procedures for the distribution of emergency public information for PWD/AFN

Additional planning should be undertaken by each county and its representative organizations and cities regarding alert and warning and public information dissemination to ensure the whole community, including PWD/AFN, is able to receive, understand, and act upon the messaging.

Regional Collaboration and Coordination

Nearly all interviewees described having strong interagency working relationships and being part of active and engaged emergency management and human services communities. The RDPO region has high levels of collaboration and planning coordination. Interviewees named a number of coordination and collaboration groups including, but not limited to, the following:

- Emergency Management Work Group (REMTEC)
- PIO Work Group
- Dispatch Center Consortium
- Public Health Work Group

A number of interviewees mentioned the Regional Public Health and Medical Multi-agency Coordination (MAC) Group as being successful at facilitating regional coordination. For example, during H1N1 activity, the MAC Group developed a coordinated, regional masking policy and associated guidance. The MAC Group appears to be an excellent venue for negotiating regional issues, such as resource de-confliction related to meeting the needs of PWD/AFN in emergencies.

Though interviewees indicated strong collaboration and interagency/interorganizational working relationships, only eight survey respondents indicated their organization had well developed relationships with organizations that provide support for and/or advocate on behalf of PWD/AFN. The largest group 51% (37) said they were engaged but wanted to expand and 38% indicated they were exploring the best way to approach developing these relationships. The survey responses are counter to what was observed in the interviews. In the opinion of the consultant, respondents underestimate the degree of engagement and connectedness and are likely using a narrow definition of PWD/AFN support and advocacy organizations. The assessment team finds the region to be quite well connected and engaged as compared to similarly sized regional areas.

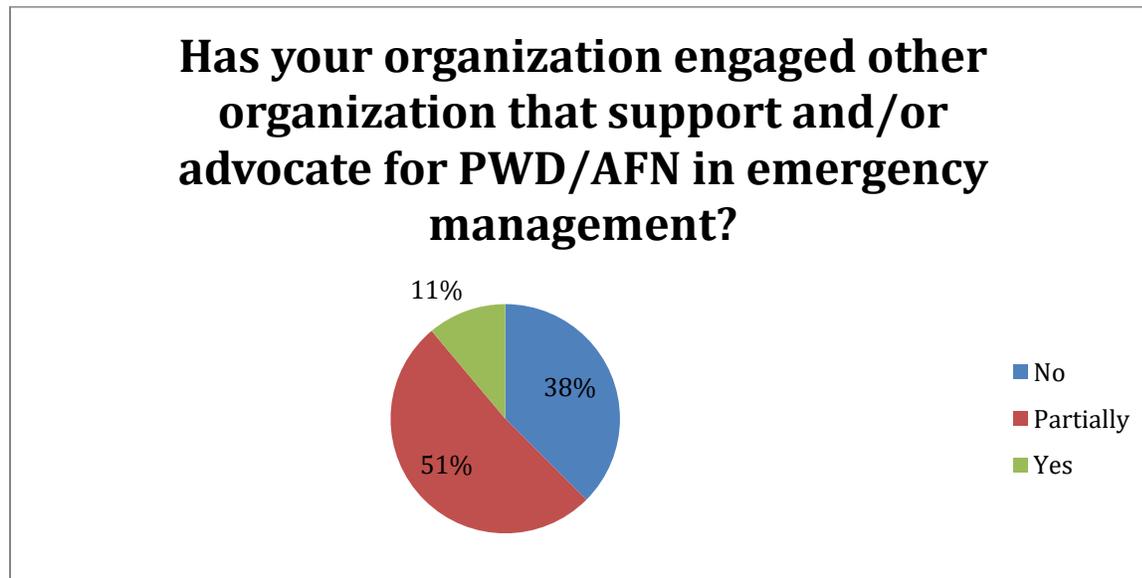


Figure 10: Organizational Engagement around PWD/AFN

Most respondents (42, 60%) indicated that when a countywide emergency occurs there is sufficient communication between response stakeholders in small events but communications are inadequate for larger events. No respondents felt that communications exceeded expectations. Efforts should be taken to enhance coordination-related communication and functions, for example via training and exercises.

40% of respondents indicated they are not currently directly engaged with PWD/AFN to participate in or support their organization's preparedness activities. Jurisdiction-level emergency management official interviews stated that they wished they had better avenues for direct engagement with PWD/AFN and additional strategies to integrate PWD/AFN into the emergency planning process.

"We want everyone at the table-you can't plan for someone without someone. If you don't ever ask someone what they need, you will never have a good plan." Interview participant.

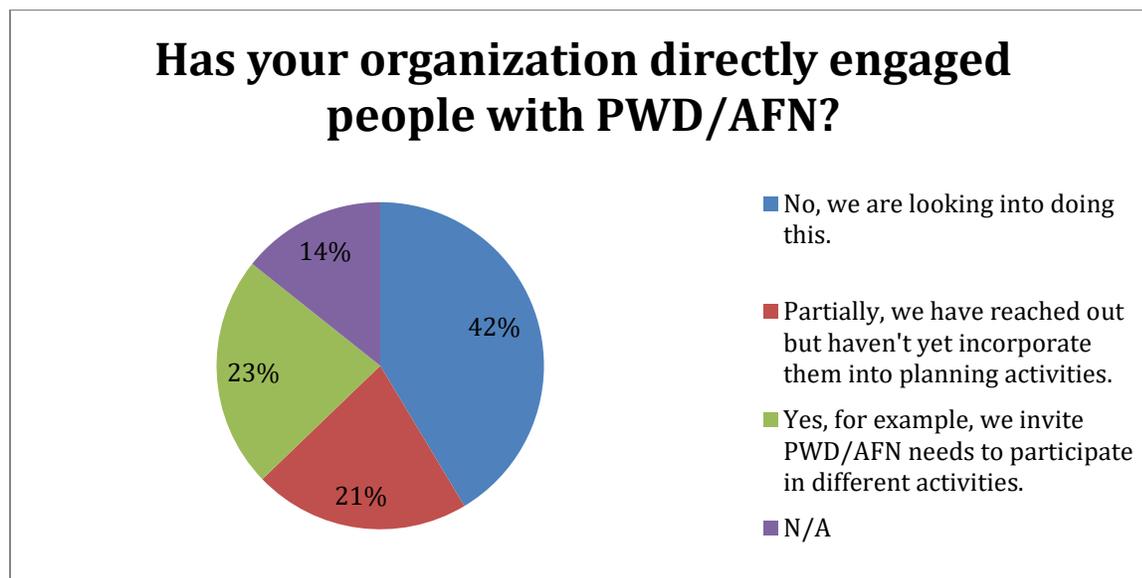


Figure 11: Direct engagement with PWD/AFN

Given the strength of existing collaborative and coordination networks, it is recommended that future activities related to meeting the needs of PWD/AFN leverage these existing relationships and structures. The existing networks offer a mechanism for engaging new stakeholders and fostering collaboration. Continued outreach will help to inform government and non-government organizations about these networks and bring in new partners and collaboration opportunities. Emergency management resources and capacities are limited and using these existing network structures will facilitate more efficient resource use and enhance the ability to meet the emergency-related needs of PWD/AFN. Given the differing capabilities and capacities of the jurisdictions and the cross-jurisdiction nature of most NGOs and PWD/AFN-specific support and advocacy organizations, collaborating on the regional, rather than individual jurisdiction level will likely be the most sustainable, productive method for engagement and achievement. Though it has been established specifically to support the Multnomah County Mass Shelter planning process, the Multnomah County Mass Shelter Access and Functional Needs Task Force should be engaged to see if their work could continue on a regional level and expand to address other planning issues related to PWD/AFN.

Training and Exercises

More than one third of respondents (27) indicated they would benefit from additional exercise opportunities. Nearly half (35) indicated their organization had not exercised procedures related to PWD/AFN though exercises were something within their organization's mission.

40% (31) of respondents indicated that staff or volunteers within their organization had received at least some training related to accommodating the needs of PWD/AFN. Only 12 (15%) indicated they were well trained and understood best practices.

"We need to build capabilities in people."
Interview participant.

A number of NGOs have developed and are providing training for first responders. The Alzheimer's Association, for example, offers a class for first responders, including law enforcement, fire, EMS, and search and rescue, on how to approach people with dementia and Alzheimer's. Interviewees reported the training provided instruction that was immediately applicable to their jobs and which they used in real life response situations. This is a great example of how building a more resilient and informed workforce benefits the region both on a day-to-day basis and during larger emergencies.

Incorporating these existing NGO trainings into the training and exercise (T&E) scheduled for emergency managers and first responders will enhance the ability of response operations to effectively meet the needs of the whole community, including PWD/AFN. These NGO trainings are often offered at no cost, a benefit for organizations with very tight T&E budgets. Additionally, and very importantly, first responder/NGO engagement via training strengthens the relationships needed during disaster.

Change Agents and Champions

During the interviews, the team identified a number of PWD/AFN champions and change agents. These individuals were well integrated into the planning systems, connected to the various nodes both within and outside of their direct service area or responsibility, and committed to meeting the needs of PWD/AFN in their daily functions as well as in disaster. These champions are seemingly able to use enthusiasm, will, and their networks to facilitate change and build capacity and capability far beyond their job descriptions and budgets.

For example, one interviewee said she considers herself a "bridge builder," working to connect people and engage parties toward mutually beneficial progress. She said she was able to increase the effectiveness of the system by bringing people together. And, by bringing people together, she is able to inject more value into the system than existed when the two acted independently.

These individuals possess skills that allow them to create connections, motivate change, and influence the direction of planning and process. Their motivation and skill should be harnessed and promoted to facilitate growth, change, and system improvement. These change agents often come from non-traditional partners but emergency managers could gain insight for replication if they could shadow the bridge builders. Many have a personal interest or stake in the outcome that motivates action. A wide net should be cast and broad participation encouraged because it is more likely to identify these change agents/connectors.

REGIONAL RECOMMENDATIONS

This section summarizes recommendations that all jurisdictions in the region should consider adopting and recommendations associated with regional collaboration. Guidance and examples for each recommendation are provided in the Best Practices document.

PWD/AFN Issue Understanding and Planning

- All jurisdictions should develop a community profile that includes information about population vulnerability to the hazards and risks facing the community. This community profile should be adapted for inclusion in emergency plans, usually the situation section, or referenced within plans. Section 2, Community Profile in the draft Multnomah County Multi-Jurisdictional Natural Hazard Mitigation Plan is very robust and should be shared as an example with other RDPO jurisdictions.

Regional Collaboration and Coordination

- Establish a regional workgroup to work collaboratively on issues related to PWD/AFN in the emergency management cycle. Much of the work of such a workgroup will apply to all jurisdictions so working regionally

can reduce costs and duplication of effort. Multnomah County has established a Mass Shelter Access and Functional Needs workgroup specifically to support the Multnomah County Mass Shelter planning project. The group includes a broad representation of stakeholders that should be engaged to determine if they would be willing to continue their work on a regional level and on other issues related to PWD/AFN. Building from that group and adding additional, broader membership could be successful. If continuing the Multnomah County Mass Shelter Access and Functional Need workgroup is not feasible, attempting to replicate their successes and enhance their work could be valuable. Once established the workgroup should:

- Have targeted, objectives-oriented meetings and deliverables that engage participants in meaningful work.
 - Ensure all participants feel they are giving and getting by being part of the process; for example, by spotlighting each member during a meeting so networking and capacity building can be a result of just being part of the group. Avoid meeting for the sake of meeting.
 - Often workgroups get stuck on defining their mission, purpose, and key definitions. Rather than focus on those steps, identify some small, tangible tasks the group can accomplish and build from their successes. Some examples of this might be to develop a group contact list for use during emergencies, develop a document describing what different organizations do during emergencies, develop “evergreen,”³ multi-jurisdiction appropriate public information material, or develop a flyer addressing specific preparedness steps for a population group (e.g., seniors, people with cognitive disabilities, etc.).
 - Avoid getting stuck on process, the need to do tasks sequentially, or needing to tackle big projects. Successful PWD/AFN task forces cite the ability to keep moving forward as key to long term functioning.
 - A wide net should be cast and broad participation encouraged because it is more likely to identify change agents and connectors.
 - Hold meetings and gatherings in spaces that are geographically, physically, and programmatically accessible, creating an open and inclusive environment.
- Whole community emergency management principles highlight the importance of engaging diverse groups and populations in the emergency management cycle, using Community Engagement Liaisons (a program described in greater detail below in the Portland findings section) to help facilitate and translate during this engagement could greatly benefit the process. While this program is maintained within the City of Portland, it would be incredibly beneficial to the entire region. The RDPO should consider mechanisms by which other jurisdictions within the region can access the Community Engagement Liaisons.

Evacuation and Transportation

- Engage in additional evacuation and transportation planning. Because many of the transportation providers operate across multiple jurisdictions, transportation planning is likely to be most effective and efficient when conducted via regional collaboration. Jurisdictions should work with transit providers to better understand the resources, priorities, and plans for service delivery. The plans of multiple jurisdictions often rely on the same set of transportation resources, so regional collaboration and resource deconfliction and prioritization is beneficial. Facilitated workshops and tabletop exercises can help all parties better understand plan strengths, gaps, and resource requirements. Once gaps and resource requirements are established, the jurisdictions will be in a better position to meet the needs, whether it be via mutual aid, resource acquisition, mitigation, or other approach.
 - Facilitated workshops should engage a broad set of stakeholders from both the public and private sector including but not limited to public transit (e.g., TriMet), paratransit providers and brokers, schools and school systems, taxis, Uber/Lyft, and others.
- All jurisdictions should develop plans that include provisions for the movement of required supplies and resources between mass care and shelter sites.

³ Material that is relevant to likely threats and hazards that can be largely drafted in advance and then updated with incident specifics when needed.

- When planning the movement of people from reception sites to shelter locations, include procedures for accommodating PWD/AFN together with their accompanying family or personal assistants, assistive/adaptive equipment, and service animals.

Mass Care and Shelter

- Multnomah County should share the Mass Shelter Equity Lens and products from ongoing shelter planning with other RDPO jurisdictions. The work is robust in its integration of PWD/AFN and is well aligned with current best practices and recommendations.

Alert and Warning and Public Information

- The assessment team does not recommend that individual jurisdictions or the larger RDPO region continue to invest in using the self-registry of PublicAlerts or any other similar registration system to identify PWD/AFN who may require additional support during an emergency. Because many PWD/AFN who may require additional services or support during an emergency are already engaged with service delivery agencies, it is recommended that emergency managers work with human service agencies, community based service organizations, and other groups who provide services to/and or advocate on behalf of PWD/AFN to access their known client lists or networks for the purpose of message dissemination.
- Additional planning should be undertaken by each jurisdiction and its representative organizations regarding alert and warning and public information dissemination to ensure the whole community, including PWD/AFN, is able to receive, understand, and act upon the messaging.
- Use the Regional PIO Work Group, the Regional Disaster Preparedness Messaging Task Force, the Citizen Corps Work Group, and/or other regional collaborations, to create pre-staged and “evergreen” whole community messaging. Using the existing group will permit cost savings and is more likely to be successful. Additionally, engage the PIO Work Group in training and exercises related to meeting the needs of PWD/AFN. PIOs should be knowledgeable of accessible communications requirements and recommendations including but not limited to 508 compliance, ASL interpretation, and others.
- Develop regional approach to de-conflict, in real time, public messaging from different agencies and/or different jurisdictions during an event that impacts multiple jurisdictions.
- Use social media to engage the whole community, including people who speak languages other than English. Use social media channels to establish relationships before an emergency so message delivery is effective during one.
- The recent public stories related to the Portland BOEC 911 Center problems is a cautionary tale that all jurisdictions should consider.² If staffing and hardware problems, during routine operations, lead to large number of missed and unanswered calls, all 911 centers in the region need to have plans that contemplate a significant rise in calls during a major emergency situation like a major winter storm or a major earthquake.

Training and Exercises

- All jurisdictions should incorporate meeting the needs of PWD/AFN into their training and exercise (T&E) programs. For example, commit to including one PWD/AFN-specific objective in each exercise, invite PWD/AFN to participate in exercises, and include PWD/AFN-specific trainings into the training calendar.
- Consider incorporating existing NGO trainings, such as the Alzheimer’s Association First Responder training, into the training and exercises scheduled for emergency managers and first responders. These NGO trainings are often offered at no cost, a benefit for organizations with very tight T&E budgets. Additionally, and very importantly, first responder/NGO engagement via training strengthens the relationships needed during disaster.

Integrating Preparedness

- All jurisdictions should work to create a culture of preparedness interwoven into the responsibilities of each individual, department, agency, and organization. Individual employees from school teachers to social service case managers to bus drivers need to be given preparedness information and encouraged to shift

² Templeton, A. “Glitch in Portland’s 911 System Prevents Operators from Returning Dropped Calls.” Oregon Public Broadcasting. December 21, 2016. Available at <http://www.opb.org/news/article/portland-oregon-911-system-dropped-calls-problem/> accessed December 21, 2016.

their perspective to view themselves as on the front line during an emergency. It is these stakeholders that emergency management will need to engage and activate in order to best meet the needs of PWD/AFN. Relatively small and inexpensive interventions can assist with this shift. These interventions can include:

- Incorporating preparedness messaging into the HR onboarding process for all jurisdiction employees. This would include explaining roles and responsibilities in an emergency and the importance of and strategies for personal preparedness.
 - If resources and political will permit, engaging in a conversation about what each employee would do if an emergency happened while they were at work and home would be significantly value additive. Research indicates that simple event sketching can significantly increase the likelihood any single individual will react safely and appropriately to disaster. Jurisdictions can reduce the cost burden of this intervention by training a small group of upper level managers then have them train their lower level managers via engaging them in the conversation. This process continues incrementally until all employees have been trained and engaged in the conversation.
- Incorporating preparedness messaging into the annual review process. This might include a short review of roles and responsibilities, personal preparedness strategies (do you have a family emergency plan?), etc.
- Identifying a single preparedness day and holding fire drills or other emergency exercises.
- Including a preparedness message in each newsletter, such as Multnomah County's Wednesday Wire.
- Many PWD/AFN depend on non-family services and providers to maintain their health and independence. If the providers are unable to continue delivery of essential services, their clients are more likely to have adverse outcomes. As such, it is important for agencies and organizations to have robust Continuity of Operations (COOP) plans and procedures and for all employees, whether defined as critical or non-critical, to know their role in a COOP event.
 - Emergency management organizations should consider engaging community partners in COOP training and provide information so they can apply COOP within their organizations.

WASHINGTON COUNTY

Washington County has a robust, coordinated emergency management system with engaged emergency managers at the county and city level. They share in planning efforts and are eager to work together. Interviews and surveys identified a strong commitment to meeting the emergency-related needs of the whole community, including PWD/AFN. County emergency management demonstrates a culture of whole community preparedness.

The following plans and planning-related documents were assessed and evaluated for elements related to and required for meeting the needs of PWD/AFN following a disaster:

- Washington County Emergency Operations Plan (2011)
- FA-A: Alert and Warning
- FA-C: Catastrophic Mass Reception
- FA-I: Emergency Public Information
- FA-P: Population Protection
- FA-Q: Public Health
- FA-S: Shelter Care and Temporary Housing

Reviewed plans are mixed in the level of addressing the needs of people with disabilities and others with access and functional needs and in meeting current recommendations regarding integration, with the more recently developed plans being far more robust in this area.

Engagement, Coordination, and Collaboration

Washington County has a robust Community Emergency Response Team (CERT) program, including Listos, a CERT training for Spanish-speakers. CERT training or modified CERT has been used to engage and prepare older adults, teens, at-risk youth, and individuals who speak Arabic. Interviewees reported that they observed CERT being effective at engaging participants, some of whom have an access or functional need themselves, and also noted the pass-down benefit of increased knowledge and preparedness among family members, friends, and community members of those directly involved, many of whom have a disability or other access or functional need. Enhancing the preparedness of the whole community, via programs like CERT, increases the likelihood that the most vulnerable in a community will have better outcomes in and following a disaster.

Interview participants and survey respondents said they had “limited bandwidth” to conduct outreach to connect with all the different groups they would like to engage in the emergency management process. For example, many would like to better engage long term care facilities, private schools, and summer camps. All indicated that they were frustrated that they couldn’t “do more.” The emergency management staff is regularly conducting preparedness outreach to groups. Without additional resources, they are unable to follow up with and continue to engage the groups after the initial outreach presentation.

Multiple attempts have been made to start PWD/AFN focused projects and workgroups in the county, but due to trouble gaining consensus on where to start, the projects have not always succeeded. One of the challenges cited is “feeling overwhelmed” by the broad nature of the planning challenges, the expansive definition of PWD/AFN, and not being able to come to consensus on where to start work. Stakeholders reported that ongoing PWD/AFN-focused meetings and workgroups started but were unable to be sustained. There was an attempt to have a quarterly meeting of local health care organizations, but after two meetings there was a lack of interest. These meetings, or other similar gatherings, might serve as a way to address the health related needs and challenges of meeting the needs of to PWD/AFN in the emergency management cycle.

Outside of emergency management, representatives interviewed from the county agencies and organizations cited various levels of knowledge about their organization’s internal disaster response and continuity of operations (COOP) plans. While some interviewees have robust knowledge, training, and engagement, there were others with very little knowledge of plans and no knowledge of COOP procedures. Many PWD/AFN depend on these services and providers to maintain their health and independence. If the providers are unable to continue delivery of essential services, their clients are more likely to have adverse outcomes. As such, it is important the agencies and organizations have robust

COOP plans and procedures and all employees, whether assigned an active role during an emergency or not, know their role in a COOP event.

Additionally, in recent years, the focus has shifted from governments trying to do the greatest good for the greatest number of people in a disaster, to the expectation that the government will provide some level of basic service to the whole community. As a result, jurisdictions, departments, and agencies and their leadership are being held politically accountable when they fail to provide essential services. Conducting comprehensive emergency preparedness, including COOP planning increases the likelihood that agencies and organizations will be able to fulfill their missions and meet public expectations.

Recommendations

- Continue using the CERT program as a community engagement and preparedness strategy. CERT is a successful entry point for the whole community to become more engaged in emergency preparedness and the entire emergency management cycle. The County should identify additional County needs and avenues for participation and see if they can channel CERT participants into those avenues. For example, the County requires preparedness information in multiple languages. As multi-lingual participants enter CERT, they could be asked if they would like to assist with drafting materials in their languages. These materials would need to go through additional quality control process but it could be a start to the process.
- Identify tangible steps that emergency management and attendees can do after a presentation to gain more involvement such as sign-up sheets for CERT or American Red Cross (ARC) first aid classes, invitations to Community Organizations Active in Disaster (COAD) meetings or other meetings that might fit.
- Have targeted, objectives-oriented meetings and deliverables that engage participants in meaningful work. Ensure all participants feel they are giving and getting by being part of the process; for example, by spotlighting each member during a meeting so networking and capacity building can be a result of just being part of the group.
- Consider working with the other counties and Portland in the region on a regional DAFN stakeholder planning group as this may be more successful in pulling in organizations and advocacy groups, especially considering so many of them provide services across the region.
- Avoid meeting for the sake of meeting. Often workgroups get stuck on defining their mission, purpose, and key definitions. Rather than focus on those steps, identify some small, tangible task the group can accomplish and build from their successes. Some examples of this might be to develop a group contact list for use during emergencies, develop a document describing what different organizations do during emergencies, hold a workshop, or develop a flyer addressing specific preparedness steps for a population group (e.g., seniors, people with cognitive disabilities, etc.). Avoid getting stuck on process, the need to do tasks sequentially, or needing to tackle big projects. Successful PWD/AFN task forces cite the ability to keep moving forward as key to long term functioning.
- Engage County employees on personal preparedness (they won't come to work if their families aren't taken care of), COOP procedures and plans. Work to promote such training for cities within the County. If the employees don't come to work after a disaster, no services will be provided. COOP plans should be exercised regularly. All employees should have no doubt about their role in an emergency or disaster. Employees should have communications plans within their families and maintain preparedness supplies at work and at home. COOP planning ensures that whole community members, including PWD/AFN, will be able to receive the essential services they need to maintain their health and independence. Identify strategies to engage PWD/AFN and integrate them in emergency management activities including, but not limited to, plan development, training and exercises.
- In addition to government employees being prepared, engage community partners in COOP training and information so they can also apply COOP within their organizations. Many non-governmental organizations are contracted to provide government services and/or provide essential services to people within the community; if they are unable to provide these services after an emergency, it will detrimentally impact those who are reliant on services and stress already limited response and recovery resources.

Notification, Warning, and Public Information

Washington County has both Alert and Warning and Emergency Public Information plans. The Alert and Warning Plan cites a number of public notification systems including CodeRED. Via CodeRED emergency alerts are distributed automatically through multiple communications channels. Landline telephones in the area receive the message. Notification via cell phones, Voice Over Internet Protocol (VOIP) phones, text message, and email is also possible but users must sign up for this service. At this time, online enrollment is the only method by which one can be included to receive alerts and warnings. Notifications are also available via a mobile app that is available for Android or iOS. An Incident Commander has the authority to initiate CodeRED notification and the Washington County Consolidated Communications Agency (WCCCA) sends the messages. WCCCA also sends Emergency Alert System (EAS) messages that go to the broadcast media. All messages and emergency alerts are sent in English, which limits their ability to be understood and acted upon by people who are not proficient in English.

The Public Information Officers (PIOs) in Washington County participate in a regional PIO Work Group. Via the work group, the PIOs work together to create unified messaging and establish relationships before an event.

Recommendations

- Utilize existing networks and enhance outreach regarding registration for CodeRED emergency alerts to increase overall usage of this system among PWD/AFN.
- Develop a process to enable registration for the public without computer access and be sure this process is widely known.
- The alert and warning plan could benefit from additional details regarding how alert and warning messages and information will be delivered so they can be received, understood, and acted upon by the whole community including PWD/AFN. For example, because messages are delivered only in English, it limits the ability to be understood and acted upon by people who are not proficient in English. Finding ways to deliver messages in languages other than English increases the likelihood they will be understood and acted upon by the whole community. Similarly, people who only have a mobile phone and have not registered for PublicAlerts are less likely to receive messages. Consideration should be given to how to increase the modalities that messages are delivered so more people can receive them.
- Given the ongoing transition of how media is used and accessed, and more reliance on web-based information sources, the Public Information Plan should rely on a multi-faceted media approach rather than what is stated: “the majority of the public will turn to TV and radio for emergency information in lieu of web-based information sources.”
- The Public Information Center (PIC) cited in the plan does not expressly indicate that it has the capacity to provide assistance to individuals with a communications-related access or functional need. Consideration for the provision of accessible communications at the PIC should be incorporated into the plan.
- Section 3.8 of the Public Information Plan, Communicating with Special Populations, is solid in its concept of operation. The language could be revised to be more C-MIST³ and people-first oriented. With a solid concept of operation documented, the plan should be exercised to test the ability of the County and its stakeholders to execute as planned.
- Use the PIO Work Group to create pre-staged and “evergreen” whole community messaging. Using the existing group will permit cost savings and is more likely to be successful. Additionally, engage the PIO Work Group in training and exercises related to meeting the needs of PWD/AFN. PIOs should be knowledgeable of accessible communications requirements and recommendations including but not limited to 508 compliance, ASL interpretation, and others.
- Ensure that all county websites are 508 or WCAG 2.0 compliant.⁴

³ C-MIST is an acronym for Communication, Maintaining Health, Independence, Support/Services/Self-Determination, and Transportation. Using C-MIST is part of planning from a functions-based perspective. More information on functions-based planning is available in the *Disabilities and Access and Functional Needs Inclusive Planning: a Summary of Guidance, Best Practices, and References*.

⁴ This refers to the United States Department of Justice’s (DOJ) Section 508 Standards of the Rehabilitation Act of 1973 which established rules for accessibility of software and websites. The Web Content Accessibility Guidelines (WCAG) was published in December 2008, and became an ISO standard in October 2012. The guidelines have been successful in specifying how to make content accessible for a range of technologies and

- Engage Spanish and other language speaking media organizations.
- Consider how to use social media to gain situational awareness and to communicate to specific communities.
- Evaluate the feasibility of sending emergency alerts in the languages other than English that are predominant within the community.

Evacuation and Transportation

The Catastrophic Mass Reception Plan (CMRP) states that a transportation plan will be developed to facilitate the movement of people from the reception site to the shelter location. This plan should include procedures for accommodating PWD/AFN together with their accompanying family, assistive/adaptive equipment, and service animals. Additionally, transportation plans should include provisions for the movement of required supplies and resources between mass care and shelter sites (the need for this transportation capability was a finding in the NYC judgment).

The Population Protection Plan, in working draft status, describes concepts of operations related to shelter-in-place and evacuation activities. The document could use some additional fleshing out of details regarding how these concepts of operation will function to meet the needs of the whole community, including PWD/AFN. For example, 3.2.2 Response states that "A Level 1 Evacuation means "Be Ready"...Residents with special needs or those with pets or livestock should make preparations and begin making precautionary movement":

- Who is in this "special needs" category? Why should they leave earlier than the rest of the population?
- How will people in this "special needs" category know that they should make begin making precautionary movement?
- Will the County support the precautionary movement of individuals with a transportation-related functional need?
- Consider changing "special needs" to "people with disabilities and others with access and functional needs" if that is who is being referenced. If that change is made, consider breaking up the statement so PWD/AFN are not grouped with people with livestock.

Once formalized, the concepts of operation described within the plan should be tested via training and exercises that include components related to meeting the needs of PWD/AFN to ensure the plan can be executed as described.

Recommendations

- Develop plans that include provisions for the movement of required supplies and resources between mass care and shelter sites.
- When planning the movement of people from reception sites to shelter locations, include procedures for accommodating PWD/AFN with their accompanying family or personal assistants, assistive/adaptive equipment, and service animals.
- Include in the plan how the County will support evacuation and transportation of people who cannot evacuate on their own. This includes how a person obtains assistance, ensuring appropriate assistance and transportation is provided, movement of supplies, equipment, and service animals, and ensuring that the person is moved to an appropriate setting.

Sheltering and Mass Care

A number of plans address elements of mass care and sheltering. Most elements are coordinated but some inconsistencies should be addressed. For example, the terminology and definition of "special populations" or "vulnerable populations" varies and should be updated and utilize DAFN or PWD/AFN across all plans.

The Catastrophic Mass Reception Plan describes using a desk structure and process, which includes a "Vulnerable Populations Sheltering Desk." This structure should be reorganized so that meeting the needs of PWD/AFN is

devices. The Access Board has proposed an Information and Communication Technology (ICT) Refresh to incorporate many WCAG 2.0 checkpoints into Section 508 and is known as 508 Refresh. The effective date for the 508 Refresh was delayed from November 2015 - from 6 months after the final rule is published in the Federal Register- to Fall 2016.

incorporated into the larger structure rather than as a set aside, solitary function. Planners may want to consider combining the functions of health, human services, and vulnerable populations using a C-MIST or functions-based framework as part of this restructuring.⁵ Additionally, the shelter triage levels should be re-organized to use a functions-based, rather than a diagnostic-based, criteria.

Reviewed plans do not specifically identify accommodation strategies for individuals with a communications-related access or functional need. Concepts of operations for providing translation, interpretation, and other communications-related accommodations should be identified and included within the plans. Additionally, plans make no mention of accommodating service animals and should be revised to do so.

Plans list shelter sites but it is unclear if these shelters have been assessed for architectural accessibility. If they have been reviewed, indicate so in the plans and refer readers to the assessment tool used for evaluation. If not, conduct accessibility assessments, order results from highest to lowest, and place in plans. Doing so will permit emergency managers to select the most accessible facility possible should reception and/or shelter be required. The shelter accessibility review process usually works best using a team approach – a person with ADA/ADAAG expertise, and a person with shelter expertise – so the facility is assessed for accessibility but only after first being reviewed for suitability of use as a shelter. Additional review and information needs to be assessed to evaluate programmatic accessibility of these selected shelter locations. This is most often done just-in-time by the shelter management team as they ready to open to the public using an “accessibility ready checklist” which will immediately indicate workarounds needed and/or changes to the location since the last evaluation review.

During interviews, the County Homeless Program Coordinator reported engaging law enforcement and fire to inform them about the location and availability of warming centers, typically hosted by faith-based groups, during times of extreme cold. Through this outreach, first responders are able to inform people experiencing homelessness about these warming centers, allowing them to have a positive engagement with the public. Additionally, this network can be activated in an emergency, not just extreme cold, to provide shelter to those in need, whether homeless, evacuating, or needing other support services. Emergency management officials should engage this existing network in an emergency.

Recommendations

- Use a standard, people-first, functions-based definition and terminology throughout and across all plans.
- Restructure the reception center desk organization plan to remove the “Vulnerable Populations Desk,” and instead incorporate PWD/AFM into the larger structure.
- Shelter triage levels should be reorganized to use a functions-based, rather than a diagnostic-based, criteria.
- Identify provisions related to communications accessibility and include within plans.
- Engage existing shelter networks and services, including homeless services, to identify possible shelter locations and activate those networks in disaster to assist individuals with access and functional needs, including but not limited to homelessness and resource limitations.
- Assess reception and shelter locations for architectural accessibility and include this information in plans to facilitate decision-making. Utilize a team structure (as mentioned above with a shelter and an ADA expert) to assess shelter sites and prioritize shelters based on the ability to meet ADA requirements.
- Define the role and responsibilities of the American Red Cross in sheltering and mass care.
- Create materials and an implementation plan for training related to sheltering and mass care for PWD/AFN. Consideration should be given to conducting this training in advance or in a just-in-time model.

⁵ More information on C-MIST and functions-based planning is available in the *Disabilities and Access and Functional Needs Inclusive Planning: a Summary of Guidance, Best Practices, and References*.

CLACKAMAS COUNTY

Clackamas County has demonstrated a robust commitment to meeting the needs of PWD/AFN in emergencies and integrating them into emergency management cycle activities. In 2015, the County Emergency Management agency sponsored interns whose sole focus was on PWD/AFN work. Products resulting from this include a white paper on the current ADA/emergency management related litigation and starting a PWD/AFN workgroup. These efforts are a solid start and, if maintained and continued, may yield significant products and achievement toward better meeting the needs of the whole community, including PWD/AFN.

The following plans and planning-related documents were assessed and evaluated for elements related to and required for meeting the needs of PWD/AFN following a disaster:

- Clackamas County EOP with Appendices
- EOP ESF 1 Transportation
- EOP ESF 2 Communications
- ESF 6 Mass Care, Emergency Assistance, Housing, and Human Services
- ESF 8 Public Health and Medical Services
- ESF 14 Long-Term Community Recovery
- ESF 15 External Affairs
- EOP SA A Evacuation
- EOP SA D Behavioral Health
- Emergency Plan for Serving People with Access and Functional Needs with Appendices (2011)
- Medical Needs Shelter Plan (2015)
- Disaster Shelter Plan, Draft (2016)
- Access & Functional Needs Task Force document (various)

Reviewed plans contain appropriate content and levels of detail regarding meeting the needs of PWD/AFN. Plans are farther along than many our team has reviewed in other jurisdictions for other projects. A number of these plans are in draft format and should be formalized and circulated, then trained upon and tested via exercises.

Engagement, Coordination, and Collaboration

Agencies (outside of emergency management), receive very little to no additional funding to conduct disaster preparedness activities. This leaves COOP planning and many other emergency management functions as an additional task to be completed as time permits (which it often doesn't). Conducting these activities collaboratively and in coordination may facilitate them being done more often and at a lower cost.

Many PWD/AFN depend on these services and providers to maintain their health and independence. If the providers are unable to continue delivery of essential services, their clients are more likely to have adverse outcomes. As such, it is important the agencies and organizations have robust COOP plans and procedures and all employees should know their role in a COOP event.

Additionally, in recent years, the focus has shifted from governments trying to do the greatest good for the greatest number of people in a disaster to an expectation that the government will provide some level of basic service to the whole community. As a result, jurisdictions, departments, and agencies and their leadership are being held politically accountable when they fail to provide essential services. Conducting comprehensive emergency preparedness, including COOP planning, increases the likelihood that agencies and organizations will be able to execute their missions and meet public expectations.

Recommendations

- Continue to focus on and build existing networks. Ensure consistency, meaningful engagement, and continued outreach to incorporate additional groups.
- Use existing collaborative networks to conduct emergency management activities. Doing so may reduce cost and increase the coordination and alignment of final products.

- Have targeted, objectives-oriented meetings and deliverables that engage participants in meaningful work. Ensure all participants feel they are giving and getting by being part of the process, for example by spotlighting each member during a meeting so networking and capacity building can be a result of just being part of the group. Avoid meeting for the sake of meeting. Often, workgroups get stuck on defining their mission, purpose, and key definitions. Rather than focus on those steps, identify some small, tangible task the group can accomplish and build from their successes. Some examples of this might be to develop a group contact list for use during emergencies, develop a document describing what different organizations do during emergencies, hold a workshop, or develop a flyer addressing specific preparedness steps for a population group (e.g., seniors, people with cognitive disabilities, etc.). Avoid getting stuck on process, the need to do tasks sequentially, or needing to tackle big projects. Successful PWD/AFN task forces cite the ability to keep moving forward as key to long term functioning.
- Engage County employees on personal preparedness (they won't come to work if their families aren't taken care of), COOP procedures and plans. Work to promote such training for cities within the County. If the employees don't come to work after a disaster, no services will be provided. COOP plans should be exercised regularly. All employees should have no doubt about their role in an emergency or disaster. Employees should have communications plans within their families and other preparedness supplies at work and at home. COOP planning ensures that whole community members, including PWD/AFN, will be able to receive the essential services they need to maintain their quality of life.
- Identify strategies to engage PWD/AFN and integrate them in emergency management activities including, but not limited to, plan development and training and exercises.
- In addition to preparing government employees, engage community partners in COOP training and information so they can also apply COOP within their organizations. Many non-governmental organizations are contracted to provide government services and/or provide essential services to people within the community; if they are unable to provide these services after an emergency, it will detrimentally impact those who are reliant on their services and stress already limited response and recovery resources.

Notification, Warning, and Public Information

The Joint Information Center (JIC) Plan includes robust alert and warning procedures applicable to the whole community. There is mention that individuals with disabilities and others with a communications-related access or functional need may be unable to receive messages via traditional routes and may require alternative strategies. These alternative strategies are not well fleshed out within the plan. Additional planning should identify these strategies and they should be tested via exercises.

The county maintains a list of interpreter services with existing contracts in place. These contracts are available via the Finance Department. Planning should include exercising the use of these services and evaluating their availability, response time and functionality in emergency situations. Additional resources such as language identification boards and translated "evergreen" communications materials should also be acquired/developed.

One recommended strategy, already under consideration within the County, is to engage social services and other support organizations who provide regular services to PWD/AFN to assist with message dissemination. This can be especially valuable during an event with notice. Emergency management officials should work with social services and other support organizations to determine and test associated concepts of operation. Consider disseminating preparedness information to test process and concepts of operations, in addition to learning if processes work as planned, community members will receive important preparedness information.

Clackamas County is working to develop "evergreen" public messages that can be translated into the primary languages other than English, as well as made available in alternative formats. These "evergreen" messages are ones that contain a static set of information for likely events that can be easily updated to match the specifics of an incident. This effort should be continued. Given that the hazards faced by Clackamas County are aligned with those of the larger region, "evergreen" message development and translation is a task that could be easily shared by a larger, collaborative group. Similarly, a number of other communities and organizations (e.g. CDC, City and County

of Los Angeles, New York City Department of Health and Mental Hygiene) have developed similar messaging that could be adapted for use in the County.

Plans reviewed do not mention using 211-type communications methods in emergencies. Additional evaluation of this system and its use in emergencies should be done and, if appropriate, included in plans. Additionally, mention of TTY and Relay Services in public communications should also be added to messages when phone numbers for hotlines, helplines or other call-in services are given.

Social Media

Clackamas County is working to develop a Spanish language emergency management/disaster preparedness focused Facebook page. The Facebook page could be a valuable tool in communicating emergency preparedness and event-related information with the Spanish-speaking population in the county and the broader region. The roll-out of social media assets requires care and thoughtfulness, as just creating the content and channel for engagement does not guarantee that people will engage. Consider aligning the roll-out with another related event such as Preparedness Week to facilitate topical promotion, as well as using established networks and partners to share information with their constituents. Also, engage with culturally-specific communities to identify ways to tailor information to their needs, interests, and concerns. Care should be taken to regularly update the page and provide fresh content in the first year to build and maintain a user base.

Making social media channels a “go to” for information during regular operations makes it more likely that people will use them during an emergency. While social media channels are often owned by a specific entity, their reach is usually broader. “Re-tweeting,” or posting interesting, relevant things that other Twitter users have posted, is an easy, low cost way to regularly engage with the user base. Social media content doesn’t necessarily have to be limited to “goings on” within the County.

Communications Training

The JIC plan contains job action sheets. Accessibility elements should be woven into each of these to ensure the needs of PWD/AFN are considered across the message development and dissemination process. Additionally, JIC staff training should include FEMA’s L-197 *Integrating Access and Functional Needs in Emergency Planning*.

Recommendations

- Build out alert and notification and emergency public information strategies that ensure messaging can be received, understood, and acted upon by the whole community including PWD/AFN. Once identified, test these strategies via exercises.
- Update translation and interpretation contracts; test capacity and functionality in exercises.
- Engage social services and other support organizations that provide regular services to and have existing communication mechanisms with PWD/AFN to assist with emergency-related message dissemination.
- Develop “evergreen” emergency public information and translate the content to make it accessible for the whole community. Consider developing this content together with other jurisdictions via existing collaborations like the RDPO PIO Work Group to share the workload and conserve resources.
- Plan to use the 211 system to assist with emergency-related public messaging.
- Use social media to engage the whole community, including people who speak languages other than English. Use the social media channels to establish relationships before an emergency so message delivery is effective during one.
- Update the JIC Plan job action sheets to address the needs of PWD/AFN.
- Train PIOs on issues and responsibilities related to meeting the needs of PWD/AFN.

Evacuation and Transportation

Reviewed plans contain only limited information regarding strategies for meeting the evacuation and transportation needs of PWD/AFN. Much of the content reads more like guidance than plans, policies, and procedures related to what actions the county will take. Interviewees and survey respondents indicated that this was the next big planning

area the county intends to tackle. As such, additional policies, procedures, and concepts of operation content should be developed and included within plans.

The Clackamas County Transportation Consortium covers all of Clackamas County, including the rural areas. There is currently an effort between emergency management and transportation to divide the county into 21 zones based on geography and bridges to assist in response efforts if any of those zones were cut off from the others. Fleet Services maintains a list of county-owned vehicles, but there may still be a need for MOUs with private transit companies to participate in disaster evacuations. Volunteer drivers could be deployed if they were available.

Appendix I of the County Transit Resources (2010) includes a partial listing of transit assets that could be used to assist PWD/AFN for evacuation. The list is a solid start but needs updating and ongoing maintenance. Additional details regarding fuel type, lift or ramp, seating configuration and other accessibility elements would be helpful to include.

The EOP ESF 1 Transportation Annex has limited mention of PWD/AFN. The Department of Health, Housing and Human Services (H3S) is listed as a support agency to the Department of Transportation and Development (DTD) with the role of "assisting with the provision of services for critical facilities and special needs individuals; providing information and referral/211 services; and assisting in disseminating information to clients and the public." Additional content and concepts of operation to address these issues should be built out and written into the plan.

Recommendations

- Develop policies, procedures, and concepts of operation content related to the evacuation and transportation needs of the whole community including PWD/AFN. A planning workshop, which brings together senior leadership and stakeholders in emergency management, evacuation, transportation, and disabilities and access and functional needs, could be an effective way to conduct this planning. Such a workshop would allow the stakeholders to collaborate and come to consensus on approaches.
- Update accessible transportation and transit asset inventory.
- Develop provisions into the plan to account for the movement of not only the person with a disability or access or functional need but also their care network, service animals, equipment/supplies, etc., as it may necessitate a different assessment of vehicle needs and dispatch protocols.

Sheltering and Mass Care

The Draft Shelter Plan is the most robust in its integration of PWD/AFN and is well aligned with current best practices and recommendations. The plan should be formalized and circulated, then trained upon and tested via exercises. The plan should undergo review and comment by PWD/AFN and the organizations that provide services to and/or advocate on their behalf.

Recommendations

- Formalize, circulate, and train on the plan. The plan should undergo review and comment by PWD/AFN and the organizations that provide services to and/or advocate on their behalf.
- Engage existing shelter networks and services, including homeless services, to identify possible shelter locations and activate those networks in disaster to assist individuals with access and functional needs, including but not limited to homelessness and resource limitations.
- Assess reception and shelter locations for architectural accessibility and include this information in plans to facilitate decision-making. Utilize a team structure with a shelter and an ADA expert to assess shelter sites and prioritize shelters based on the ability to meet ADA requirements.

CLARK COUNTY

Clark County appears to be in the early phases of planning to meet the needs of PWD/AFN in emergencies and integrating them into emergency management cycle activities. The Clark Regional Emergency Services Agency (CRESA) representatives engaged in the project voiced a commitment to meeting the needs of PWD/AFN, crucial to initiating the planning efforts needed.

Clark Regional Emergency Services Agency (CRESA) provided their "Clark County Regional CEMP" for review. The plan follows the standard basic emergency preparedness plan format but does not provide information or details regarding the County's whole community planning or preparations to meet the needs of PWD/AFN. None of the appendices were provided for consideration in the evaluation.

The content within the CEMP is dated 12/2013 and due for an update. The CEMP does not currently but should be revised to reflect and incorporate the following: a whole community approach to planning as recommended by FEMA guidelines, Comprehensive Preparedness Guide 101 (CPG 101), the requirements of Presidential Policy Directive 8 (PPD8), the National Response Framework (NRF), and ADA compliance recommendations, among others.

During interviews conducted in September, 2016, the team met with nine interagency stakeholders who provided additional detail on County activities and programs related to meeting the needs of PWD/AFN not captured within the CEMP.

Engagement, Coordination, and Collaboration

Community and Interagency Preparedness

CRESA facilitates a robust public awareness program, which includes a number of National Preparedness Month activities including a "Disaster Movie Night" and a "30 days, 30 ways" preparedness initiative for the month of September.

Preparedness seems to be woven into the activities of several Clark County departments and agencies. For example, Clark County Public Health requires all employees to do personal preparedness planning, including the mapping of three routes to get to work and family communications planning. Employees are allowed one paid hour each year to update their personal preparedness plans. Supervisors engage in preparedness conversations, including verifying that personal preparedness planning has been done, during annual reviews. This approach should be used across the County to enhance preparedness and the review team strongly urges the County to promote their efforts as a replicable practice through speaking opportunities at conferences, publication in field journals and the like. These preparedness activities enhance the COOP function of Clark County Public Health, making them better able to respond to and meet the needs of the whole community, including PWD/AFN, during an emergency.

The County is working to revitalize its COAD. It is strongly recommended these efforts continue as NGOs can provide force multiplication and myriad sources of support in disaster. Additionally, many COAD organizations likely provide services to PWD/AFN and are valuable engagement partners to better meet the needs of PWD/AFN.

The Department of Community Services provided the assessment team with a copy of the department's Comprehensive Plan 2016-2020. Though not specific to emergency management, the plan contains detailed information, including client statistics, demographics, and service provision information, that could greatly inform CRESA's planning and response activities.

Inclusion, Engagement, and Coordination

Within the CEMP, under the "Situation Overview/Emergency Conditions and Hazards Analysis Summary" section (page 12), the plan includes a limited list of groups that may require additional assistance or accommodation in an emergency. This list is a start, but should be expanded to provide a more detailed and comprehensive picture of the population, demographics, and vulnerability within the County. It is possible this population hazard vulnerability

information exists and is maintained outside of the CEMP. If so, it should be referenced within the CEMP. If it does not yet exist, the County should engage in a vulnerability assessment process that seeks to better understand the needs of people in the County.

The Nondiscrimination section contains the bulk of the planning language about meeting the needs of PWD/AFN, but could benefit from revision and additions. Line 1 of the non-discrimination statement is positive and aligned with recommendations, but the latter part, "No special treatment will be extended to any person or group in an emergency or disaster over and above what normally would be expected in the way of local government services" is unclear and may be read as the County stating it will not be delivering emergency services. It should be revised to clarify intent and it is always recommended to be phrased in the positive rather than the negative tone.

A small excerpt of the Americans with Disabilities Act is located on page 59 under the section "Federal Disaster Assistance." There is no additional documentation regarding the ADA and its applicability to emergency planning and disaster response in the CEMP, nor is there reference to the definition of people with disabilities, and those with access and functional needs. Neither does there appear to be an integration of the whole community approach into the CEMP or operational contingencies for addressing access and functional need requirements within all emergency plans and procedures. There is no reference to functional need support services (FNSS) in mass care or sheltering areas of the CEMP, under transportation, evacuation, or communications. The plan revision should include all of these elements.

The plan does not indicate that any DAFN-related stakeholders were part of the planning process or provided input and feedback to CEMP development. The County does not currently have a workgroup seeking to address the needs of PWD/AFN. Creating such a workgroup and engaging them in the CEMP revision would likely enhance the whole community content and establish planning strategies that are more likely to meet the needs of PWD/AFN as well as possibly uncovering hard assets not previously factored into logistics planning.

There is no indication from the CEMP that any of the training, exercises, public information and communication, or response and recovery activities recognize the requirements of whole community planning, the ADA, or addressing access and functional needs.

There is very limited mention of organizations that provide services to and/or advocate on behalf of PWD/AFN and their role in planning, preparedness, response or recovery. Under the "Organization and Assignment of Responsibilities" section for partnering organizations, the plan does state, "non-profit and human service organizations" but does not articulate roles and responsibilities. Additionally, there is no mention that MOUs/MOAs have been established with these organizations.

Organizations like the non-profit Human Services Council have the potential to be valuable partners during a disaster. The Human Services Council has agreements with transportation providers, and runs the Volunteer Connection which maintains a Volunteer Mobilization Center. This would be an invaluable resource to manage spontaneous volunteers during a disaster.

Training and Exercises

Once additional planning related to meeting the needs of PWD/AFN is done and incorporated into plans, CRESA and its whole community stakeholders need to train and test via exercises. Currently, Clark County uses mannequins and off-duty personnel in all exercises, including decontamination. It is recommended that Clark County expand this program to go beyond the use of mannequins and off-duty personnel and engage diverse groups of community members, including PWD/AFN, to better simulate real world situations during exercises.

Recommendations

- Identify strategies to engage PWD/AFN and integrate them in emergency management activities including, but not limited to, plan development, training and exercises.
- Continue to develop a COAD in the County and be sure to invite, in addition to others, organizations serving people with disabilities.

- Identify and engage community organizations to be partners.
- Expand programs that engage County employees on personal preparedness (they won't come to work if their families aren't taken care of), COOP procedures and plans. Work to promote such training for cities within the County. If the employees don't come to work after a disaster, no services will be provided. COOP plans should be exercised regularly. All employees should have no doubt about their role in an emergency or disaster. Employees should have communications plans within their families and maintain preparedness supplies at work and at home. COOP planning ensures that whole community members, including PWD/AFN, will be able to receive the essential services they need to maintain their health and independence.
- In addition to government employees being prepared, engage community partners in COOP training and information so they can also apply COOP within their organizations. Many non-governmental organizations are contracted to provide government services and/or provide essential services to people within the community; if they are unable to provide these services after an emergency, it will detrimentally impact those who are reliant on their services and stress already limited response and recovery resources.
- Use existing collaborative networks to conduct emergency management activities. Doing so may reduce cost and increase the coordination and alignment of final products.

Notification, Warning, and Public Information

The Southwest Washington PublicAlerts system is used to disseminate emergency and other significant municipal notifications within Clark County. The system covers Clark, Cowlitz, Skamania, and Wahkiakum counties and is accessed for registration via a number of avenues including the CRESA website, via www.publicalerts.org, and by web searches. As discussed elsewhere in this report, the Public Alert registration site, publicalerts.org, is not 508 compliant and does not allow language translation. Users must re-register upon moving to update their information. This creates an awkward situation where people could receive multiple alerts or targeted alerts where they do not live. The current system only allows on-line registration in English, though during the interviews it was reported that some counties use 211 to offer operator assistance when registering people if required. Clark County is considering identifying a new vendor for their emergency notification system, which may give them the opportunity to correct these issues.

The Human Services Agency has a robust emergency client contact procedure. Each month, case managers update their client list to ensure current contact information and identify their "high risk" clients. These lists are then sent to the supervisors, who print the lists and place them in a special location for easy access should their computer system go down. In the event of an emergency, the highest risk clients are contacted as soon as possible to ascertain their condition and determine if additional assistance is needed. These wellness checks are conducted by case managers. To enhance this system, it is recommended these lists be kept in a COOP site location as well as at the primary service location. Additionally, enhancing coordination between human services and CRESA about how additional needs will be met would be beneficial for all parties. The process for wellness checks should be incorporated into emergency management exercises. Additionally, County agencies should engage in planning how wellness checks would be done if telephone service is not available and/or there is no answer. Also, planning regarding sharing client lists with responders and consideration of confidentiality could be beneficial.

Because many PWD/AFN who may require additional services or support during an emergency are already engaged with a County agency, expanding the wellness check and client list maintenance program could be an effective way to reach some of the highest risk clients in the County. By no means do all PWD/AFN receive services and this process does not account for people who develop AFN as a result of the disaster, but this strategy can be more effective than attempting to maintain a voluntary registry.

Several agencies and groups have the ability to provide preparedness information and emergency communication to their clients and contractors.

The CEMP did not specifically address notification, warning, and public information for PWD/AFN. This content should be developed, included within the appropriate plans, trained on, and tested via exercises. Recommendations regarding this content can be found within the *Summary of Guidance, Best Practices, and References*.

Recommendations

- Build out alert and notification and emergency public information strategies that ensure messaging can be received, understood, and acted upon by the whole community including PWD/AFN. Once identified, test these strategies via exercises.
- Resolve some of the limitations of the current notification system in the near term then work toward improving overall accessibility of the system via more detailed contracting terms. Some areas for enhancement include:
 - Ensure all web pages are 508 compliant. Ideally WCAG 2.0.
 - Provide alternative processes for registering without a computer.
 - Provide registrations and alerts in multiple languages.
 - Allow the public to update their information without re-registering
- Identify accessibility requirements for the alert/notification system and seek an alert/notification system vendor that can deliver on county requirements, including those related to accessibility.
- Establish translation and interpretation contracts; test capacity and functionality in exercises.
- Engage social services and other support organizations that provide regular services to and have existing communication mechanisms with PWD/AFN to assist with emergency-related message dissemination.
- Develop “evergreen” emergency management public information and translate that content and make it accessible for the whole community. Consider developing this content together with other jurisdictions via existing collaborations like the RDPO PIO Working Group to share the workload and conserve resources.
- Consider how to use social media to gain situational awareness and to communicate to specific communities.

Evacuation and Transportation

The CEMP contained only a small amount of content about evacuation and transportation, and little specific to PWD/AFN. This content should be developed, included within appropriate plans, trained on, and tested via exercises. Recommendations regarding this content can be found within the *Summary of Guidance, Best Practices, and References*. The non-profit Human Services Council has a contracted fleet resource list which includes accessible transportation. The larger schools have their own transportation fleets. Relationships should be established with these groups and many others identified in the County to determine possible transportation opportunities during an evacuation.

Recommendations

- Develop policies, procedures, and concepts of operation content related to the evacuation and transportation needs of the whole community including PWD/AFN. A planning workshop, which brings together senior leadership and stakeholders in emergency management, evacuation, transportation, and disabilities and access and functional needs, could be an effective way to conduct this planning. Such a workshop would allow the stakeholders to collaborate and come to consensus on approaches.
- Develop provisions in the plan to account for the movement of not only the person with a disability or access or functional need but also their care network, service animal, equipment/supplies, etc., as it may necessitate a different assessment of vehicle need and dispatch protocol.
- Include in the plan how the County will support evacuation and transportation of people who cannot evacuate on their own. This includes how a person obtains assistance, ensuring appropriate assistance and transportation is provided, movement of supplies, equipment, and service animals, and ensuring the person is moved to an appropriate setting.
- Develop a list of potential transportation resources, including accessible transportation, and complete a countywide inventory.
- Establish relationships with potential accessible transportation providers both traditional and non-traditional community based assets.

Sheltering and Mass Care

Clark County does not currently have a mass care and shelter plan. During interviews, the County reported a sense of urgency to developing a plan. The CEMP's ESF #6 Mass Care, Housing, Emergency Assistance and Human Services and ESF #7 Resource Management do not contain content beyond an outline template. Additional resources should be allocated to support the development of a comprehensive sheltering plan.

In the Responsibilities section of the CEMP, the American Red Cross (ARC) is identified as having the responsibility to provide shelter and mass care, including tracking and tracing. It is unclear if the local ARC has the capacity to conduct these activities and what will happen if their capacity is overwhelmed. Additionally, the ARC is tasked with responsibilities not usually within their purview in other jurisdictions. It is possible the ARC in Clark County has the capacity to deliver these services and has agreed to do so; if so, it should be captured and documented within an MOU/MOA. Additionally, these concepts of operation should be tested via exercises.

Four of the schools in the Vancouver School District already serve as shelters on an ongoing basis, housing students and their families that otherwise would be sleeping in their cars, on the streets, or other locations other than a home. In those four schools, there is an understanding of the roles of local schools as a natural community gathering point, so they would likely also be used as gathering and sheltering locations in disaster. These schools have been evaluated for ADA accessibility and also possess additional items and resources like food, showers, etc., needed for sheltering.

ESF#8 Public Health and Medical Services section does not provide adequate information on general public health issues; briefly discusses issues surrounding medical facilities but not congregate care or intermediate care facilities; and inadequately addresses mental/behavioral health. There is no content related to service animal accommodation, pet sheltering, or private sector/volunteer agencies/NGOs. This content should be developed, included within the appropriate plans, trained on, and tested via exercises. Recommendations regarding this content can be found within the *Summary of Guidance, Best Practices, and References*.

Recommendations

- Develop a mass care and shelter plan, including:
 - Identifying a sheltering manager/lead for the EOP
 - Identifying shelters and conducting initial shelter surveys taking into account ADA accessibility requirements
- Identify the roles and responsibility of the American Red Cross and formalize the responsibilities in an MOU/MOA.
- Include school district administration and school staff in exercises and planning efforts.
- Identify and include within plans provisions related to communications accessibility.
- Engage existing shelter networks and services, including homeless services, to identify possible shelter locations and activate those networks in disaster to assist individuals with access and functional needs, including but not limited to homelessness and resource limitations.
- Assess reception and shelter locations for architectural accessibility and include this information in plans to facilitate decision-making. Utilize a team structure with a shelter and an ADA expert to assess shelter sites and prioritize shelters based on the ability to meet ADA requirements.
- Create materials and an implementation plan for training related to sheltering and mass care for PWD/AFN. Considerations should be given to conducting this training in advance or in a just-in-time model.

MULTNOMAH COUNTY

Multnomah County provided several documents to review. Documents were provided from the emergency management agency, health department, and human services department. They include, but are not limited to:

- Emergency Management Agency:
 - Basic Emergency Operations Plan (EOP) Working Draft, June 2016
 - Vulnerable Populations Assessment Report, 2012
 - Multnomah County EOP Animals in Disaster, 2010
 - Regional Vulnerable Populations Emergency Annex, 2010
 - Mass Shelter Plan – multiple documents including: task force minutes, facility tier guidance, Equity Lens
- Department of Human Services:
 - Adult Home Care Emergency Preparedness Template (blank)
 - Multiple small documents that include: information on cooling centers, one-page natural disaster notification steps, and a severe weather protocol
- Health Department:
 - ESF 8 Hazard Vulnerability Assessment
 - Culturally Specific Populations Emergency Communications Project Summary
 - Access and Functional Needs/At-Risk Populations Tab F

Not all documents submitted have been listed, as they were one (1) to two (2) pages with limited content deemed not applicable to the assessment.

Overall, the assessment found Multnomah County to be engaged in inclusive, integrated planning and taking significant steps to meet the needs of PWD/AFN, but as with all complex efforts, has additional work to do.

The interview process engaged 14 individuals from various agencies and departments.

Engagement, Collaboration, and Coordination

In 2012, the Multnomah Emergency Management Agency funded a Vulnerable Populations Assessment Project. The year-long project was specifically funded to assess the emergency preparedness of the County. The assessment focused on what emergency support for PWD/AFN currently existed, where there were gaps and the development of a set of recommendations to support these populations and attempt to reduce “disproportional suffering and impact.” Roughly half of the project report is general information on planning for PWD/AFN populations and not specific to Multnomah County. At the time of the report, the project was using an EOP from 2011.

The Executive Summary of the project indicated that, “...across (the) County have been doing numerous things to support People with Access and Functional Needs, including managing contracts, providing some direct services, logistic and financial support, and a variety of other services...” Following is the list of broad recommendations that came out of the project:

- Focus on contracting language for outside agencies providing services (ex. foster homes, senior citizen activities, mental health providers, and others), and develop a clause to ensure that these providers have appropriate planning to support the populations they serve
- Countywide cohesive planning including all departments and divisions—there are many resources in each department and division that can benefit from being connected and this will strengthen response by the County
- A long-term strategic plan needs to be developed for communication and community outreach with a focus on People with Access and Functional Needs
- Expand scope and usage of BRIDGE GIS mapping software to include location and other resources to

- support People with Access and Functional Needs
- Create a countywide human resource inventory of contractors and other agencies that we can tap during emergencies
- Develop a committee of People with Access and Functional Needs for the County that can be used in policy making, policy development, and implementation

The County has made significant progress in addressing the recommendations including hiring a fulltime Access and Functional Needs Planner (now called the Equity Planner), developing and supporting the robust Access and Functional Needs Task Force, and attempting cohesive interagency planning. Unfortunately, current plan documents do not reflect the ongoing planning efforts or much of the recommendations from the 2012 report. For example, the 2012 report recommends the Department of Health, “Expand the Tab F aspect of the Emergency Response Plan to flesh it out to address needs of people with access and functional needs.” Based on what the Department of Health submitted for review, it appears no additional efforts have been taken though, if they have, there is no supportive documentation that codifies current operational understanding and expanded planning posture. Additionally, the project report includes a robust section dedicated to demographics, that of the country as a whole and of Multnomah County. The planning documents provided for review during this project did not include demographic sections that describe how diverse the community is, but the draft Natural Hazard Mitigation Plan (NHMP) contains a very robust Community Profile. The NHMP Community Profile should either be referenced within the EOP and other emergency planning documents or adapted for inclusion.

While structured somewhat differently than the 2012 report, the "Regional Vulnerable Populations Annex, Assisting Government Agencies in Understanding Functional Needs of Individuals in Emergencies, 2010" also contains resources, recommendations, and best practices related to meeting the needs of PWD/AFN. The Annex is sometimes referred to as a plan, though it contains no operational information. The document is a good source of information and again demonstrates Multnomah County and the larger region’s commitment to meeting the needs of the whole community, but is not a substitute for conducting the “rubber meets the road” planning and documenting that planning appropriately in plan documents.

Equity Planning

Multnomah County has identified equity as a “keystone value” and is working to “to ensure access, equity, and inclusion in our services, policies, practices, and procedures.” While the equity process is in its early stages within emergency management, significant progress has been made and the County is far ahead of many U.S. jurisdictions at recognizing, understanding, and working to meet the needs of PWD/AFN. A key tool in Multnomah County’s work is the Equity Lens, and its adaptation form, the Mass Shelter Equity Lens (discussed below). The thoughtful, intentional planning being done is some of the best the assessment team has observed at attempting to recognize, understand, and meet the needs of PWD/AFN. The Equity Lens approach should be continued and expanded to the rest of the emergency management program. While doing equity planning, care should be taken to avoid “navel gazing” and planning for planning’s sake. The planning effort should be outcome oriented and strive toward improving emergency management cycle objectives and ensure achievements are incorporated into plan documents.

Emergency Operations Plan

The Multnomah County Emergency Operations Plan follows the standard EOP framework and components as recommended by FEMA. The plan recognizes people with disabilities and those with access and functional need by incorporating the standard definition used by FEMA. The C-MIST definition is included in section 2.1.3 At-Risk Populations. The County also indicates that personal preparedness is the responsibility of everyone. The plan includes the ADA definition of an individual with a disability. In the roles and responsibility section, PWD/AFN relevant material such as accommodating service animals, coordinating emergency assistance to vulnerable populations, and identifying who the PWD/AFN population is are delegated to appropriate agencies in the County that would most likely address similar issues during non-emergency periods.

There is a reference to DAFN populations in Table 3-1 Multnomah County Emergency Support Functions. Concerns related to PWD/AFN under the ESF 14 Public Information area are mentioned but the table does not indicate how.

For all of the work being done in Multnomah County for PWD/AFN, the ESF table appears incomplete and lacking detail. PWD/AFN issues should be integrated across all ESFs and into preparedness, response, and recovery plans. Chapter 3 Roles and Responsibilities, Section 3.2.2.5 County Human Services Department language should change from "special needs" to PWD/AFN, DAFN, or other more inclusive, function-oriented language the County decides to use consistently.

In section 3.4 Private Sector and 3.5 Nongovernmental Organizations, there is no mention of PWD/AFN. National best practices recommend collaboration with private sector and NGOs partners, including in the area of meeting the needs of PWD/AFN. Private sector and NGO partners should be engaged and collaborated with and the relationships should be codified via MOU/MOA.

After section 4.5.2.1 in the Operations Chapter, there is no further mention of PWD/AFN-related planning issues in the EOP. The lack of additional inclusive planning information reinforces the need for additional planning and documentation of such planning within the EOP. If Multnomah County continues developing subject-specific plans (Shelter, Mass Care, Evacuation, etc.), those plans should be referenced within the EOP.

Client Location Identification and Outreach

During the Johnson Creek Flood event in 2015, the Multnomah County Department of Human Services (DCHS) conducted wellness checks for all of their clients who resided within the high-risk inundation area. Supervisors and case managers accessed the client lists and called each client via telephone to check their status, obtain situational awareness about the conditions of the flood, and provide referral for additional support, as required. This effort, though somewhat herculean because it was done by just a handful of staffers, was considered incredibly successful and should be further developed into a regular practice with appropriate levels of staffing, resources, and activation triggers, etc. Though not reviewed as part of this project, Multnomah County reports that SOPs and personnel support strategies have since been developed.

Additionally, the Department has mapped all of its clients and overlaid hazard information to better understand population vulnerability in the County. Other agencies and organizations are now looking for funding to conduct similar mapping efforts. Unfortunately, there are limitations to sharing this mapping and data because of confidential HIPAA concerns. Mapping stripped of identifying information was used during the December 2015 storm, and while helpful for general planning, it was not able to identify specific individuals who may need higher levels of assistance. The County should determine if there are legal exceptions for using client information in an emergency.

Research indicates that a statistically significant number of PWD/AFN are often connected to government services and/or community organizations. Working together, government agencies, community organizations, and emergency management should determine how existing networks and relationships can be used, augmented, and activated to reach PWD/AFN. Strategies include using GIS to map people who receive services to determine if there are high density pockets or conversely service deserts; understanding what hazards people with particular access and functional needs may face; and targeting emergency management intervention using data. Rather than redoubling efforts to get people to use a voluntary registry, emergency managers should try to use information that already exists. It is likely less work and cost to determine how to make existing information accessible than start from scratch in generating the information. This information would enhance the mitigation, preparedness, response, and recovery capability of Multnomah County and the larger region.

As a one of several major clients of the City of Portland BOEC 911 Center, Multnomah County needs to work closely with the City of Portland to ensure that all residents of the county have access to 911 services in a timely manner. PWD/AFN rely on the 911 system as a major lifeline to receive first responder assistance. The recent recognition that many 911 calls went unanswered and even unrecognized by the system should be a major concern. This failure has a major impact to PWD/AFN who, in many cases, have no other way of accessing emergency first response or healthcare in a time of emergency.

Recommendations

- Continue working toward achieving the 2012 Vulnerability Assessment Project Report recommendations:
 - Focus on contracting language for outside agencies providing services (ex. foster homes, senior citizen activities, mental health providers, and others), and develop a clause to ensure that these providers have appropriate planning to support the populations they serve
 - Conduct countywide, cohesive planning including all departments and divisions—there are many resources in each department and division that can benefit from being connected and this will strengthen response by the County
 - Develop a long-term strategic plan for communication and community outreach with a focus on People with Access and Functional Needs
 - Create a countywide human resource inventory of contractors and other agencies that can be tapped into during emergencies
- If there is any way that the sensitive HIPAA data could be scrubbed from the mapping, it would make the maps usable by the different groups and first responders that want to help. It would also save the duplication of effort that is currently underway.
- Identify and leverage agencies and CBOs that are active in the community and have lists of clients. Develop relationships to facilitate outreach and communications. Preparedness, pre-disaster, response and recovery information could be pushed to the clients.
- The NHMP Community Profile should either be referenced within the EOP and other emergency planning documents or adapted for inclusion.
- Expand the Mass Shelter Access and Functional Needs Task Force (discussed more below) model and use it on other emergency management plan and program development and review processes.

Evacuation and Transportation

The region's hazards are not those that would call for an advance warning and large scale evacuation, so evacuation and transportation planning has not been as much a priority as sheltering and other areas. That said, this is an area that requires attention and work. In interviews it was reported that Multnomah County will lead sheltering and mass care and the City of Portland will lead the evacuation and transportation planning effort. Roles and responsibilities for evacuating individuals in unincorporated/non-City of Portland areas are unclear. Overall transportation planning is needed, and accessible transportation and that for PWD/AFN will be a significant and complicated component.

Recommendations

- Develop policies, procedures, and concept of operations content related to the evacuation and transportation needs of the whole community including PWD/AFN in the unincorporated areas of Multnomah County.
- Engage in regional evacuation and transportation planning.
- Coordinate with City of Portland regarding the interface between evacuation and transportation services provided by the City and the mass care and shelter services provided by the County.

Public Information, Notification, and Warning

Together with the larger Portland-Vancouver area, Multnomah County uses PublicAlerts as its municipal public information notification system. It is a fairly robust system that has many positive features. The sign-up is allowed in multiple languages via Google Translate. Registration allows the choice of 10 languages and the alerts are sent in the selected language. The public can update their information upon moving or other changes. However, the current system only allows on-line registration, though there is some capacity to use 211 operators to assist with sign-ups. Additionally, the system is not 508 compliant and is not accessible by screen readers and other accessibility devices. County representatives said that they are working with the vendor, Everbridge, to enhance the accessibility of the City of Portland and Multnomah County PublicAlerts system site including registration pages.

The online registration process allows the user to make an "I Have These Access/Functional Needs" selection during registration. Those who self-identify as having an "Access/Functional Need" are then added to the Additional Needs Registry via an internal process. The Additional Needs Registry (ANR) is maintained by the 911 agency. Additionally,

the 911 CAD system has the capacity to add address-linked notes. 911 dispatch adds notes about regular callers, anyone who they know may have a special situation, or may have an access and functional need, etc. County planners hope that together the ANR and the 911 notes can help them better identify and prioritize public messaging, wellness checks, and other preparedness and response strategies.

During interviews many participants cited the ANR as one of the County, and the larger region's successes and future areas of strength related to meeting the needs of PWD/AFN. Though registries are a great idea in theory, most jurisdictions have experienced significant challenges implementing them and more still in attempting to sustain them. Voluntary registries are largely not considered a good practice. They haven't proved worth the investment. As such, it is recommended that the County and larger region focus their attention and resources elsewhere. A far more successful strategy will be to coordinate the consolidation of existing client lists and data and creating GIS-enhanced resources to guide mitigation, preparedness, response, and recovery efforts.

Recommendations

- Build out alert and notification and emergency public information strategies that ensure messaging can be received, understood, and acted upon by the whole community including PWD/AFN. Once identified, test these strategies via exercises.
- Test translation and interpretation capacity and functionality in exercises.
- Engage social services and other support organizations that provide regular services to and have existing communication mechanisms with PWD/AFN to assist with emergency-related message dissemination.
- Ensure all web pages are 508 or WCAG 2.0 compliant.
- Clarify how the "Additional Needs Registry" information will be used then revise that section of the website, and any other related or supporting information, to reflect the clarification.
- Several departments, agencies and CBOs have the ability to provide emergency communication to their clients. These should be identified and leveraged for emergency public communications.
- Consider how to use social media to gain situational awareness and communicate to specific communities.
- Use the PIO Work Group to create pre-staged and "evergreen" whole community messaging. Using the existing group will permit cost savings and is more likely to be successful. Additionally, engage the PIO Work Group in training and exercises related to meeting the needs of PWD/AFN. PIOs should be knowledgeable of accessible communications requirements and recommendations including but not limited to 508 compliance, ASL interpretation, and others.
- Train PIOs on issues and responsibilities related to meeting the needs of PWD/AFN.

Sheltering and Mass Care

Led by the Equity Planner, Multnomah County is currently engaged in a comprehensive sheltering and mass care planning process. Though not yet fleshed out into a complete plan, the effort is making progress and appears to the assessment team to be incredibly inclusive and integrated. Based upon the documentation provided and interviews conducted, the assessment team believes the shelter planning effort will yield a strong plan that not only includes the needs of PWD/AFN, but also seeks to provide equity to the whole community. Efforts should be made to complete the plan and move onto other planning areas. Additional planning that needs to be completed, as observed by the assessment team, includes but is not limited to:

- Completing the mass shelter plan. Once completed, formalize, circulate, and train on the plan.
- Establishing MOUs/MOAs with shelter locations.
- Clarifying roles and responsibilities with the American Red Cross.
- Clarifying roles, responsibilities, and coordination with Portland Public Schools.
- Identifying the logistics and supply assets needed to support a full shelter operation.
- Ensuring continuity between the shelter and transportation plans.
- Continuing to engage existing shelter networks and services, including Joint Office on Homeless Services, to identify possible shelter locations and activating those networks in disaster to assist individuals with access and functional needs, including but not limited to homelessness and resource limitations.

- Continuing to assess reception and shelter locations for architectural accessibility and including this information in plans to facilitate rapid, informed decision-making. Utilize a team structure with a shelter and an ADA expert to assess shelter sites and prioritize shelters based on the ability to meet ADA requirements.

After six (6) months of conducting Mass Shelter Access and Functional Needs Task Force meetings for stakeholder input, participants noted that being involved with the task force has changed the way they think about planning to meet the needs of PWD/AFN. Some highlights of the task force meetings included comments made from participants like: "We are a transportation organization. We are looking more holistically at helping our customers be more prepared and less dependent on public supports and services post-disaster," and "At first I was thinking of sheltering in a reactionary way. Now I see we are being proactive in how we meet the peoples' unique needs." If good work and relationships are coming out of the task force, then every effort needs to be made to ensure that all emergency management documentation reflect these efforts and stakeholder guidance.

Concerns raised during the meetings recognize that the current task force membership was not as diverse or inclusive as it could be and that regular participation is difficult to sustain. Continued participation can be difficult to achieve. The task force has brought integration to the forefront of the County and the facilitators are working hard to integrate diversity and accessibility, but those are hard to sustain.

Multnomah County uses a guidance tool to assist in addressing its community mass care sheltering needs. The Mass Shelter Equity Lens (also referred to as The Lens) is a, "guidance tool to ensure an equitable mass shelter plan for everyone everywhere in Multnomah County in need of shelter during a mass displacement event such as a catastrophic earthquake." The Mass Shelter Access and Functional Needs Task Force uses The Lens to tailor elements of the plan. Using the Mass Shelter Access and Functional Needs Task Force to review deliverables, provide feedback, and technical assistance should be considered a best practice and shared with other emergency management agencies.

Health and Human Services Departments

Several additional documents were submitted from both the Health Department and Human Services Department, respectively. Many of these documents were one-pager informative documents to use as a quick resource. For example, the Adult Home Care Services Preparedness template is an excellent template for the audience it represents. There is a one-page notification example in case of a natural disaster used by the Human Service Department to notify staff and other divisions as well as client service providers or facilities that the department is responsible for. Under the Health Department, the two-page Access and Functional Needs/At-Risk Populations document is a resource that includes the definition of DAFN populations. It is used as a Tab insertion for a larger planning document that was not included.

Unique to the entire review process is the Culturally Specific Populations Emergency Communications Project Summary under the Department of Health. This is the only project of its kind within any of the counties evaluated, and although the seven-month project took place in 2007, much of the information learned can be used in emergency planning today. The purpose of the project was to assess communication channels with culturally-specific communities during health emergencies. According to the report, "...Awareness of emergency preparedness was raised through community events and gatherings. Some CBOs began integrating emergency preparedness information into their routine home visits. By the end of the pilot project, CBOs had built a rapport and feeling of unity among themselves; they came to consensus in renaming the project *Cultures Uniting for Emergency Preparedness*." Since this project was conducted so long ago, it could benefit Multnomah County to conduct another such study with the focus on emergency preparedness and disaster response capabilities amongst culturally-specific populations.

During the interviews, there appeared to be a disconnect between various department emergency plans and the larger county plans. The response and roles of agencies and departments during an emergency need to be coordinated and it should be reflected in their plans.

Recommendations

- Complete the mass shelter plan. Once completed, formalize, circulate, and train on the plan.
- Complete ongoing work to establish MOUs/MOAs with shelter locations.
- Clarify roles, responsibilities, and coordination with the ARC and Portland Public Schools.
- Identify the logistics and supply assets needed to support a full shelter operation.
- Ensure continuity between the shelter and transportation plans.
- Continue to engage existing shelter networks and services, including the Joint Office on Homeless Services, to identify possible shelter locations and activate those networks in disaster to assist individuals with access and functional needs, including but not limited to homelessness and resource limitations.
- Continue to assess reception and shelter locations for architectural accessibility and include this information in plans to facilitate decision-making. Utilize a team structure with a shelter and an ADA expert to assess shelter sites and prioritize shelters based on the ability to meet ADA requirements.
- Ensure departmental emergency plans are aligned with and integrated into the County Comprehensive Emergency Plan.
- Create materials and an implementation plan for training related to sheltering and mass care for PWD/AFN. Considerations should be given to conducting this training in advance or in a just-in-time model.

CITY OF PORTLAND

Though distinct jurisdictions, the City of Portland and Multnomah County possess significant overlaps and junctures. Many of the findings for Multnomah County apply to the City of Portland and vice versa. The documents reviewed include:

- Basic Emergency Operations Plan Draft, 2016
- Annex B Communications
- Annex C Alert and Warning, 2013
- DAFN Stakeholder List for Multnomah County & Portland
- Debris Management Plan, 2014
- Evacuation Annex, 2013

Additionally, nine whole community stakeholders participated in the in-person interview process.

Engagement, Coordination, and Collaboration

In 2015 the Immigrant and Refugee Community Organization (IRCO) began to hear reports of misinformation regarding the risk of a large Cascadia earthquake causing intense fear among some of their clients. Some people were so fearful of an impending earthquake and tsunami that they used their very limited resources to buy life jackets and emergency water, while others decided to leave the Portland area all together.⁶⁷ IRCO coordinated a community meeting with PBEM in hopes of reducing fears and then developed a preparedness presentation specifically for IRCO clients. Four separate interviewees described the series of events to the assessment team—each with a slightly different perspective and take but all saying that, though difficult, it was a huge learning experience. Meeting the emergency management-related needs of the whole community is incredibly difficult and no matter how good everyone's intentions, requires care, skill, resources, and a collaborative, inclusive approach. Successful emergency management must happen via engagement and collaboration. The City of Portland is invested in meeting the needs of the whole community, especially PWD/AFN, yet, doing so is a process and additional coordination, alignment, and collaboration is needed.

The Emergency Operations Plan Draft, 2016 establishes early on that the City is diverse. There is a robust demographic section in the plan that describes a variety of population concerns that can be addressed by planning for PWD/AFN. The EOP even includes specific metric data regarding the homeless population and recognizes the vulnerabilities these individuals may face during disasters. The City of Portland EOP includes demographic information for Multnomah County with regards to poverty levels and the number of persons with disabilities served by the Department of Human Services, which includes the number of individuals receiving in-home care services and the number of persons considered homeless or living in transitional housing.

After the standard demographic profile and one mention in the list of planning assumptions, there are no further mentions of PWD/AFN-related planning or integration. In Table 3-4 Enhanced Operations, under Bureau Responsibilities, there is no mention of posting accessible messages and public safety alerts accessible to PWD/AFN. In the Notification section, while it does say, "Community partners engaged in response," there is no specific language that indicates whether or not any of these community partners provide services to and/or advocate on behalf of PWD/AFN or what level of response assistance the partners can or will provide.

Interviewees expressed a significant commitment to and innovative ideas related to meeting the emergency management-related needs of PWD/AFN. City of Portland government and community organization representatives are well engaged in regional work groups and task forces including the AFN Task Force. The Portland Bureau of Emergency Management (PBEM) is updating several plan documents and, like Multnomah County, is using an equity

⁶ Montecillo, A. "Immigrants, Refugees Face Barriers to Earthquake Preparedness." *Think Out Loud*. Oregon Public Broadcasting. October 19, 2015. <http://www.opb.org/radio/programs/thinkoutloud/segment/oregon-immigrants-refugees-face-barriers-to-earthquake-preparedness/> accessed December 15, 2016.

⁷ Gallivan, J. *Living in Fear of the Big One*. Portland Tribune. September 17, 2015. <http://portlandtribune.com/pt/9-news/273397-148182-living-in-fear-of-the-big-one> accessed December 15, 2016.

perspective and lens to assist the efforts. For example, as they are updating the debris plan, they are working to understand how pushing debris off of main arterial roads could block accessibility for PWD/AFN and how to mitigate such problems.

Following the 2015 Johnson Creek flooding, PBEM initiated additional effort to better plan for the emergency needs of homeless people. During that event, city agencies worked together to help homeless individuals congregating near the flood hazard zone to move to safer areas. Interviewees reported that while the 2015 flood event was successful at considering hazard risk, during non-emergency times individuals camping outdoors often congregate in Special Flood Hazard Areas (SFHA) which are known to flood. Additionally, interviewees reported that police and other outreach personnel often informally encourage homeless individuals to move to other areas without considering if the area is, for example, a SFHA. A representative from Multnomah County reported offering to train Joint Office on Homelessness staff on hazard mapping, specifically Flood Insurance Rate Maps (FIRMs), to help reduce the hazard risk facing homeless individuals. PBEM and Multnomah County should continue working on strategies to share hazard vulnerability information with other City agencies to reduce city-wide vulnerability.

PBEM coordinates a robust Community Emergency Response Team program called NETs (Neighborhood Emergency Teams). The NET coordinator is working to develop a welfare check capacity, whereby NET members would conduct wellness checks on the neighbors in an emergency. If formalized, this approach could significantly enhance the City's ability to identify and assist those most in need of assistance in disaster.

Recommendations:

- Continue with plan updates that incorporate concepts of operations and planning strategies to meet the needs of the whole community, including PWD/AFN.
- Continue planning related to using the NETs to assist with wellness checks on PWD/AFN.
- Conduct population and hazard vulnerability analysis and share information across City agencies and departments to facilitate hazard reduction-oriented decision and policy making.
- Identify strategies to engage PWD/AFN and integrate them in emergency management activities including, but not limited to, plan development and training and exercises. Expand programs which engage City employees on personal preparedness (they won't come to work if their families aren't taken care of), COOP procedures and plans. Work to promote such training for agencies within the City government. If the employees don't come to work after a disaster, no services will be provided. COOP plans should be exercised regularly. All employees should have no doubt about their role in an emergency or disaster, including those who do not have a specific emergency-event related tasking. Employees should have communications plans within their families and maintain preparedness supplies at work and at home. COOP planning ensures that whole community members, including PWD/AFN, will be able to receive the essential services they need to maintain their health and independence.
- In addition to government employees being prepared, engage community partners in COOP training and information so that they can also apply COOP within their organizations. Many non-governmental organizations are contracted to provide government services and/or provide essential services to people within the community; if they are unable to provide these services after an emergency, it will detrimentally impact those who are reliant on their services and stress already limited response and recovery resources.
- Continue to focus on and build existing networks. Ensure consistency, meaningful engagement, and continued outreach to incorporate additional groups.
- Use existing collaborative networks such as the RDPO, the regional PIO Work Group, and other similar organizations, to conduct emergency management activities. Doing so may reduce cost and increase the coordination and alignment of final products.

Public Information, Notification, and Warning

The Alert and Warning Annex did not address issues related to PWD/AFN such as accessible messaging, alternate formats, alternate languages, or multi-modalities for sharing emergency messages. The only reference to PWD/AFN was under the Situation and Assumptions section, item #2b, "Ensure important safety actions are communicated to all in the affected community regardless of language, disability or other factors inhibiting a clear understanding of

the message.” There is discussion on how the agency will ensure this happens and, in interviews, there was concern about the ability to disseminate alert and warning information to the whole community including PWD/AFN. The Communications Annex is focused on strategies for ensuring redundant communications and as such, it is appropriate to have content specific to PWD/AFN. That said, the plan is dated 2012 and many of the communications technologies listed may no longer be as relevant. As the Alert and Warning and Communications annexes are updated, more planning to ensure messaging and public information is recommended.

The Bureau relies on their PIOs to post information on incidents. The plans do not describe a process for engaging PIOs from other agencies that can help distribute emergency messages to their service populations, such as the Multnomah County Developmental Disability Department. While the City does not provide social services, it could benefit residents if PBEM PIOs coordinated with County social service agencies around emergency information dissemination.

Additionally, the plan does not include any reference to federal communications laws as they apply to PWD. A list of applicable legal authorities is found in the *Summary of Guidance, Best Practices, and References*. Consideration should be given to referencing communications laws applicable to the plan.

The Community Emergency Notification System (CENS), PublicAlerts, will direct dial landline telephone numbers to deliver emergency public information when activated during an emergency. Mobile and other non-landline telephone users must register to receive PublicAlerts. Self-registration systems for mobile telephone users are likely to miss many people. The City should continue using additional communication strategies, including but not limited to traditional and social media, variable message boards, and door knocking, to ensure emergency notifications can be reached by the whole community including PWD/AFN.

The City of Portland has developed an innovative program to reach culturally specific groups. The Community Engagement Liaison (CEL) program identifies civic-minded individuals from underserved and vulnerable neighborhoods or communities and provides them with training in collaboration and advocacy. They are available to help City programs with culturally appropriate interpretation and facilitation services. This program has been recognized as a national best practice by Harvard’s Kennedy School of Government Ash Center for Democratic Governance and Innovation. Consideration should be given to expanding the CELs to not just culturally-specific populations, but also the disability communities. Funding should be allocated to access CELs for planning and plan review, and during response and recovery. Whole community emergency management principles highlights the importance of engaging diverse groups and populations in the emergency management cycle, using the CELs to help facilitate and translate during this engagement could greatly benefit the process. While this program is maintained within the City of Portland, it would be incredibly beneficial to the entire region. The RDPO should consider mechanisms by which other jurisdictions within the region can access the CELs.

The City of Portland is part of the regional Public Alert emergency notification system, a program described above. The registration FAQ section states “Registry information will be entered into the 9-1-1 system within two months of being provided. Information from Portland residents will be shared with Portland Neighborhood Emergency Team (NET) members to help provide assistance following a major disaster.” It is unclear how well known this sharing protocol is understood by those who register, may be concerning to people in the disability community, and could possibly have privacy issues. PBEM should clarify sharing of the voluntary registry information to ensure it is used appropriately and in compliance with privacy and informed consent regulations.

Recent reports suggest that not all calls to the City of Portland BOEC 911 Center are answered or even recorded in the system. PWD/AFN rely on the 911 system as a major lifeline to receive emergency services. The recent recognition that many 911 calls went unanswered and even unrecognized by the system should be a major concern. This failure has a major impact to PWD/AFN who, in many cases, have no other way of accessing emergency first response or healthcare in a time of emergency. If staffing and hardware problems during routine operations lead to large numbers of missed and unanswered calls, the BOEC 911 center needs to have a plan that contemplate a significant rise in calls during a major emergency situation like a major winter storm or a major earthquake.

The City of Portland has established Basic Earthquake Emergency Communication Nodes (BEECNs) at locations around the City. They are described as “a place to go in Portland after a major earthquake to ask for emergency assistance if phone service is down, or report severe damage or injury.” This innovative program has significant potential; however, the accessibility of BEECN sites is variable. Accessibility to PWD/AFN was not specifically a consideration in the placement of the BEECNs. PBEM may want to evaluate placement in light of accessibility and other access and functional components.

Recommendations:

- Build out alert and notification and emergency public information strategies that ensure messaging can be received, understood, and acted upon by the whole community including PWD/AFN. Once identified, test these strategies via exercises.
- Test translation and interpretation capacity and functionality in exercises.
- Engage social services and other support organizations that provide regular services to and have existing communication mechanisms with PWD/AFN to assist with emergency-related message dissemination.
- Use the community engagement liaison (CEL) program as an interpretation service in the emergency management program.
- All residents served by the 911 center need access to 911 services in a timely manner. Develop a plan to ensure that those portions of the populations that depend on the 911 Center for their safety and contact with the emergency services communities receive needed services in a timely way during normal and disaster situations.
- As more BEECN sites are added, accessibility should be part of the site selection criteria and the level of pre-earthquake accessibility should be messaged.

Evacuation and Transportation

The evacuation plan contains a confusing discussion of hazards that may require evacuation. The Situation section lists hurricanes and widespread flooding as those that could necessitate evacuation. However, in the Causes for Evacuation section of the plan, more hazards are listed. PBEM should review and revise the “Situation” portion, compare it against the “Causes” portion, and consolidate the reasons or hazards that would cause either a mass or limited evacuation to reduce confusion. Additionally, there is a paragraph discussing shelter impacts as a result of Hurricane Katrina which notes that Portland facilities were used to shelter evacuees. While City of Portland and Multnomah County residents may need to evacuate and shelter somewhere in the jurisdiction, the discussion of pre-identification of such shelters is not itself a “Cause for Evacuation” and should be aligned elsewhere in the plan.

The plan contains the positive, affirmative statement, “Transportation of persons who need evacuation assistance including persons using wheelchairs, care for companion animals, accessibility to sheltering and food availability are all key components of meeting needs of the population outlined in ADA and Title VI of the Civil Rights Act,” yet the plan does not provide additional detail or reference to additional detail about how this statement will be achieved. In meeting with representatives from the region, accessible transportation in disaster is a significant planning gap.

In the middle of this section, there is a highlighted statement that reads, “Insert map of sites that house functional needs populations.” Because this mapping is not included, it is unknown what is displayed. Vulnerability mapping, including mapping the locations of long term care facilities, areas with high densities of PWD/AFN, and areas where languages other than English are especially prevalent, among others, can be a valuable, all phase, emergency management tool. Such mapping is likely of more use and easier to update if maintained electronically and only referenced within plan documents. As with all key information, PBEM should consider making printed version of some maps and keeping them within the EOC and COOP locations should GIS systems become unavailable.

The evacuation notification statement, “Notification via broadcast media and social media and community notification by landline phones, cell, email, texting and door to door evacuation communications will all be used to ensure the population understands the necessity to evacuate. Public messaging will need to be in many languages and American Sign Language (ASL) to inform the most citizens” is solid, but should be incorporated into other plan documents and tested via exercises to ensure it can be achieved.

The plan acknowledges the need for reception sites if evacuation is required. A 2008 study was conducted of the Portland Bureau of Parks and Recreation and a list of sites and their possible uses. (Table 1 in the plan.) It is unclear if these locations meet ADAAG guidelines for facilities. In addition to the Parks and Recreation locations, the plan indicates the American Red Cross, identified NGOs, and faith-based organizations may also have facilities. Again, there is no statement that confirms the accessibility of any of these possible locations, though the ARC assessment considers physical accessibility. In reviewing Table 1, Site Emergency Use Criteria, the Mass Care/Reception Site, Medical Care Points, Points of Distribution does not indicate any accessible accommodation requirements for PWD/AFN.

The plan recognizes the need for continued communications with the community and articulated the need to provide ADA accessible shelter information for, "people with functional needs." It is recommended that more expansive PWD/AFN language be used within the plan.

Appendix A is an Evacuation Toolbox created by a third party contractor in 2008. It provides a general suggested methodology for evacuation decision-making and possible options for supporting evacuation operations. The toolbox is not considered a "final product" and indicates the City of Portland will need to customize the toolbox based on a collaborative planning process. A single part of the Toolbox refers to moving "special needs" populations via cabs or buses; there is no additional detail regarding supporting the evacuation of PWD/AFN. If still applicable, PBEM should revisit the Evacuation Toolbox using the Equity Lens or other perspective that takes into consideration the needs of PWD/AFN and, specifically, the vehicle accessibility features and the capacity to move people along with their care network, immediate family, necessary equipment, and possessions.

Evacuation and relocation planning efforts have largely assumed that small-scale evacuation/relocation can be achieved with easily accessible resources and that large-scale event evacuation/relocation activities will only be required in catastrophic, no-notice events like a Cascadia earthquake. It is far more likely that a mid-size event like a hazardous materials accident or slow flooding event will necessitate evacuation or relocation of some portion of the city. PBEM and evacuation planning partners should consider conducting some scenario-based planning around mid-sized evacuation events.

Work remains to be done on evacuation/relocation planning, including supporting the needs of PWD/AFN within the City of Portland and the larger RDPO region. This planning is likely best conducted via a workgroup and workshop process that brings together the many stakeholders involved in and needed for evacuation.

Recommendations

- Develop policies, procedures, and concept of operations content related to the evacuation and transportation needs of the whole community including PWD/AFN. A planning workshop, which brings together senior leadership and stakeholders in emergency management, evacuation, transportation, and disabilities and access and functional needs, could be an effective way to conduct this planning. Such a workshop would allow the stakeholders to collaborate and come to consensus on approaches.
- Update accessible transportation and transit asset inventory.
- Develop provisions to account for the movement of not only the person with a disability or access or functional need but also their care network, service animal, equipment/supplies, etc., as it may necessitate a different assessment of vehicle need and dispatch protocol.
- Engage in regional evacuation and transportation planning.
- Coordinate with Multnomah County regarding the interface between evacuation and transportation services provided by the City and the mass care and shelter services provided by the County.

WEBSITE REVIEW

A total of 18 websites, provided via the RDPO project leadership, were evaluated for both content and technological accessibility. The review was divided into two parts, one that evaluated content and one that evaluated the technical elements of accessibility.

The content review section is intended to be used as a guide for emergency managers and others developing public facing materials and messaging. With this information in hand, it becomes easier to account for the common pitfalls and mitigate against them before anything goes “live” thus getting material and information to more members of the public as intended in the first place. The technical website review is intended to help web masters, programmers, and designers achieve accessibility. The content is designed to help remedy current identified deficiencies but also mitigate them in the future. Both sections have been designed so that they can be pulled from the larger document and given to specific audience without requiring additional context or introduction.

Content Review

The first review level of the websites involved an eye to the “experience” a member of the public would have when accessing emergency related information as provided by jurisdictions on their website platforms. Each of the websites listed below was carefully reviewed for content related to disabilities and access and functional needs in relation to emergency planning, specifically whether there was mention of:

- A core advisory or planning group working on issues related to PWD/AFN and contact information for a contact with that group
- Contact information for a contact who can provide additional information regarding PWD/AFN
- Tips on how those with PWD/AFN can prepare for emergencies
- Training opportunities for PWD/AFN
- Emergency planning resources for PWD/AFN
- Links to groups that engage in emergency planning to meet the needs of PWD/AFN

General Findings

Most of the websites reviewed in this process do not contain contact information for a jurisdiction coordinator or similar point of contact for PWD/AFN, an AFN advisory group, or established partnering local disability groups and agencies (such as the local Center for Independent Living or Division on Disability Services). Only a few offer information on county preparedness efforts, plans, and training opportunities for PWD/AFN.

Accessible cooling locations, points of distribution, reunification centers, and/or emergency shelter sites are rarely identified. Understanding and acknowledging that many jurisdictions make it a policy not to publish specific locations in advance of confirmed use, including a statement saying that they will be published when activated is helpful to provide. This helps to educate the public about the need to be actively engaged and regularly monitor emergency management websites and follow official announcements as soon as a situation is pending or occurs for the most up to date information, instruction, and direction.

It is recommended that websites list a contact person for more information, and where there is information regarding PWD/AFN, a contact that can provide information specifically about emergency management and PWD/AFN. This contact does not necessarily need to be a specifically focused on planning to meet the needs of PWD/AFN, but should be versed in such planning and able to connect any individuals to more information. Programs should determine internally who is most appropriate as a contact person (for example, it could be a public information officer, community outreach coordinator, equity planner, or other person).

Clackamas County

1. County Emergency Management - www.clackamas.us/emergency

A Preparing Individuals with Access and Functional Needs subhead can be found on the left side of the page. There is an option to sign up for public emergency alerts (Clackamas County Emergency Notification System & PublicAlerts). After clicking on the subhead, the text refers to American Red Cross' information on emergency preparedness for seniors and people with disabilities. It includes tips on creating a personal support network along with the personal support network preparedness checklist; creating an emergency plan; an ability self-assessment checklist; and links to more disability specific tips as well as partner organizations, such as the National Organization on Disability.

Clark County

1. Clark Regional Emergency Services Agency (CRESA) - <http://cresag11.org/>

There was nothing PWD/AFN-specific found when visiting the site. After clicking the Prepare, Be Ready link, nothing appeared on PWD/AFN—including under the related links section. On the main page, there was information stating that Smart911 is coming soon, which may be helpful to PWD/AFN. Registrants can include information that they want responders to know in case of an emergency.

Information was listed on cooling locations, but it was not on the homepage. Site visitors must select the emergency management drop down box and then click on the emergency preparedness section to find the link to cooling locations. A link to a 133-page PDF of the Clark Regional Comprehensive Emergency Management Plan is located in the emergency management drop down box.

2. County Public Health - <https://www.clark.wa.gov/public-health>

Upon clicking on the emergency preparedness link on the left hand column, visitors will find a link to Get Yourself Ready. Upon clicking it, there are links to disaster readiness tips for people with:

- Diabetes
- Kidney disease
- Mental health illness/Chemical dependency
- Deafness or hearing loss
- Visual impairment
- Mobility disabilities
- Developmental and cognitive disabilities
- Languages other than English
- Children or pregnant women

There was also a link to dispensing medication and a link to the Push Partner Registry, which is a database of private partners and community organizations that serve as Points of Dispensing (POD) for medicines needed in a large-scale health emergency. Additionally, there was a link to information on how to become a Medical Reserve Volunteer.

Another section under the emergency preparedness section covered County Emergency Response Plans and contained a section on dispensing medications, which included tips on POD set up and staffing.

There is no contact information for a person that handles issues and planning related to PWD/AFN.

These links should be updated to reflect People First Language, which puts emphasis on the person instead of his/her disability. The Texas Council for Developmental Disabilities offers excellent guidance on People First Language, including a handout at: <http://tcdd.texas.gov/resources/people-first-language>.

Multnomah County

1. Emergency Management (MCEM): <https://multco.us/em>

No specific PWD/AFN-related information can be found on the main page. There was a link to sign up for emergency alerts, discussed elsewhere in this report. After clicking on the Emergency Preparedness link, one can download the document titled *Disaster Preparedness for People with Disabilities* on the Preparedness Documents page.

There is no contact information for a person that handles issues and planning related to PWD/AFN.

2. Multnomah County Emergency Management (MCEM) Immigrant and Refugee Emergency Preparedness: <https://multco.us/global/immigrant-and-refugee-emergency-preparedness>

There is a link on the main page to mental health information. Specifically, it states "FEMA teamed up with the Substance Abuse and Mental Health Services Administration to publish an in-depth guide on providing culturally-appropriate mental health services following a disaster." Some information on the site is offered in other languages, such as Spanish.

A link was also included to *Right Response*. The description states that the Federal Office of Health and Human Services offers a free online course focusing on how to provide culturally-appropriate services during a disaster.

There is no contact information for a person that handles issues and planning related to PWD/AFN.

3. Interactive demographic map: <https://multco.us/global/demographics>

This map covers languages spoken at home in 2014. There is a link to a report on Racial and Ethnic Health Disparities in Multnomah County. There is also a link to the MultCo Global Directory of non-profits, faith groups and government programs that serve immigrants in the Portland Metro area.

4. Tools, tips, rules on language services: <https://multco.us/global/language-access>

This site makes clear that language interpreters can be provided to clients in need. There is also a link on how to become a health care interpreter, as well as a link on communicating through a healthcare interpreter. Three links to online translation services are included as well. There is no other content related to PWD/AFN or contact information for a person that handles issues and planning related to PWD/AFN.

5. Cultural service directory (with emergency contacts on the backend): <https://multco.us/global/cultural-services-directory>

This is the link to the Cultural Services Directory of non-profits, faith groups and government programs that serve immigrants in the Portland Metro area.

6. Multnomah County Department of County Human Services (including services related to aging, disability, veteran services, housing, homelessness, weatherization, developmental disabilities, domestic and sexual violence, and social and support services for youth, families and community members): <https://multco.us/dchs>

On the Aging, Disability and Veterans Services Division page, there is no information on emergency preparedness for PWD/AFN. The same goes for the Developmental Disabilities page and the DCHS Community Services Division. There is no contact information for a person that handles issues and planning related to PWD/AFN.

7. Multnomah County Health Department (including services related to public health, mental health and addiction, pregnancy and parenting): <https://multco.us/health>

The only PWD/AFN related link on this site was one on public health preparedness, which led to a write up on the Push Partner Registry and another link on the Additional Needs Registry. However, upon clicking on the Additional Needs Registry link (<http://www.portlandoregon.gov/oni/45141>), it led to a great deal of information on emergency preparedness for people with disabilities, including information on receiving PublicAlerts and the Additional Needs Registry. It states: "The Additional Needs Registry is a voluntary program for those persons in Portland and Multnomah County who may need specific disability-related assistance and/or accommodations in the event of a major disaster. Signing up for the registry is done through the website PublicAlerts.org."

There were also links to the following:

- Emergency plan ideas for people with disabilities (this includes tips on evacuating, sheltering, communication, etc.)
- The emergency preparedness training program (which is DAFN specific); a Russian version is available too*
- Neighborhood Emergency Teams (contains contact information for those who want to be trained and certified to be a NET member)**
- Emergency self-preparedness training for people with disabilities (this links to a YouTube video; additional versions are available in English, Spanish, Open Caption, Voice Description, and American Sign Language)

There is no contact information for a person that handles issues and planning related to PWD/AFN.

*The emergency preparedness training program provides participants with video training and a booklet that offers tips on staying informed, creating a support group, assembling a kit, and having plan. The site states that "these tips provide people with disabilities guidance in managing communication, equipment, pets and home hazards. The material is based on the Ready Now training developed in partnership with Oregon Office on Disability Health."

**The site states that "Neighborhood Emergency Teams (NETs) are Portland residents trained by PBEM and Portland Fire & Rescue to provide emergency disaster assistance within their own neighborhoods."

City of Portland

1. Bureau of Emergency Management - www.portlandoregon.gov/pbem/index.cfm

Information on earthquakes is offered in 11 languages on this site. There is an opportunity to sign up for PublicAlerts. There is also a map and information on Basic Earthquake Emergency Communication Nodes in Portland where people can go after an earthquake if they need emergency assistance and phone service is down.

After clicking on the Preparedness Resources dropdown box towards the top of the page, visitors will see a section titled Make a Plan and there is a section for individuals with disabilities under that. Within that section, visitors will find links to:

- the emergency preparedness training program (which is DAFN specific); versions are available in Open Caption, American Sign Language, Voice Description, Spanish and Russian*
- a workbook on emergency self-preparedness for people with disabilities
- the Additional Need Registry
- the ShakeOut Earthquake Preparedness Guide
- the video Preparing Makes Sense for People with Disabilities and Other Access and Functional Needs
- the Action Checklist: Items to Do Before a Disaster
- Preparing for Disaster for People with Disabilities and Other Special Needs
- the Prepare for Emergencies Now brochure

The website provides good information for people with disabilities and others with access and functional needs. There is no contact information for a person that handles issues and planning related to PWD/AFN.

2. Office of Neighborhood Involvement (Disability Program/Emergency Preparedness) - <http://www.portlandoregon.gov/oni/45141>

As mentioned earlier, this site offers a great deal of information on emergency preparedness for people with disabilities, including information on receiving PublicAlerts and the Additional Needs Registry. It states: "The Additional Needs Registry is a voluntary program for those persons in Portland and Multnomah County who may need specific disability-related assistance and/or accommodations in the event of a major disaster. Signing up for the registry is done through the website PublicAlerts.org."

There is no contact information for a person that handles issues and planning related to PWD/AFN.

Washington County

1. County Emergency Management - www.co.washington.or.us/emergencymanagement

On this page is information about the Public Health Emergency Preparedness (PHEP) Program, which "works closely with the Emergency Management Department to build more resilient communities and ensure the county's public health system is prepared to effectively respond to a range of public health threats." Under the preparedness dropdown box is a section on vulnerable populations. On that page, links to helpful information are provided under four categories: seniors, children, animals, and individuals with disabilities or access and functional needs. Some of the links go to credible sources, such as FEMA, Red Cross, and the US DHHS. Examples of links include:

- Disaster Preparedness for Seniors by Seniors
- Emergency Preparedness for People with Kidney Disease
- Emergency Preparedness for Children with Special Health Care Needs

There is no contact information for a person that handles issues and planning related to PWD/AFN.

2. County Public Health Emergency Preparedness - www.co.washington.or.us/HHS/emergencypreparedness

This links to a preparedness toolkit and to other preparedness resources. After clicking the link to the toolkit, there was a link to the Ready Now! Emergency Preparedness Toolkit for People with Disabilities, which is 156 pages and was developed by the Oregon Office on Disability & Health. It is also available in Spanish.

There is no contact information for a person that handles issues and planning related to PWD/AFN.

3. County Disability, Aging & Veteran Services - www.co.washington.or.us/HHS/DAVS/index.cfm

This site shares information on the programs the County offers for those who have disabilities and/or are veterans. There is nothing specific on PWD/AFN and emergency management.

4. Emergency Management Cooperative – www.ocem.org

After clicking on the Prepare for Disaster tab at the top, a number of preparedness links come up, including the one on Special Populations. Upon clicking on that topic, links to preparedness resources are offered for seniors, children, animals, and individuals with disabilities and access and functional needs. These links include:

- Emergency Preparedness for Older Adults
- FEMA for Kids
- FEMA: Preparing for Disaster for People with Disabilities & Other Special Needs
- ReallyReady.org: preparedness for people with sensory disabilities

There is no contact information for a person that handles issues and planning related to PWD/AFN.

5. Take 5 to Survive – www.take5tosurvive.com

This site offers 5-minute preparedness projects to help families prepare. It also links to the Emergency Management Cooperative's Preparedness site for special populations: http://www.ocem.org/special_populations.cfm

Links to preparedness resources are offered for seniors, children, animals, and individuals with disabilities and access and functional needs. Some of the links include:

FEMA: Preparing for Disaster for People with Disabilities & Other Special Needs

ReallyReady.org: preparedness for people with developmental/cognitive disabilities

Disaster Preparedness Manual for the Aging Network

Technological Accessibility Review

The technological review assessed conformance of multiple websites with the United States Department of Justice's (DOJ) Section 508 Standards of the Rehabilitation Act of 1973 and World Wide Web Consortium's (W3C) Web Content Accessibility Guidelines (WCAG) 2.0. The review process is described in the *Evaluation Criteria* of this report. The review methodology is based on the W3C's Conformance Evaluation method (with customizations) as described in *Evaluating Websites for Accessibility*.

This section of the report provides a high-level immediate takeaway about website conformance to evaluate whether or not additional review is necessary by more technically proficient practitioners. It then provides the level of technical information and resources that a web programmer or other subject matter expert can use to evaluate the recommended conformities.

Evaluation Tool

The assessment team considered more than 10 commercial, shareware, and freeware evaluation tools. The freeware Functional Accessibility Evaluator 2.0 (FAE) was selected as the evaluation tool because it met all desired evaluation requirements. Though FAE evaluates for DOJ's ADA Section 508 and W3C's WCAG 2.0 checkpoints, results could be misinterpreted if not mapped accordingly to 508 and WCAG 2.0. This is because Section 508 considers a Pass/Fail system while WCAG 2.0 and FAE 2.0 account for Fail and bands of accessibility compliance; the bands assist in the remediation process to reach increasing levels of compliance. The assessment team devised a conformance equivalency system to map Section 508, WCAG 2.0 and evaluation tool (FAE)* checkpoints; these checkpoints are for *minimum* requirements to achieve baseline accessibility. WCAG 2.0 and FAE 2.0 accommodate for beyond minimum requirements. The conformance equivalency system is:

Section 508	WCAG 2.0	Evaluation Tool	Summary Status
Pass	AAA	100	●
Pass	AA	95-99	◐
Pass	A	50-95	◑
Fail	Fail	0-49	○

* Functional Accessibility Evaluator 2.0 (see Section 2 Background about Evaluation)

The FAE 2.0 evaluates for both Section 508 and WCAG 2.0 checkpoints. It is important to understand the significance of conformance to both Section 508 and WCAG 2.0 standards, and why the FAE evaluation tool was selected. More detailed information on FAE is below in the *FAE Specifics* section. Additional information on 508 and WCAG 2.0 is provided in the *Evaluation Background* section below. The following provides basic information on these two critical standards for website accessibility.

Section 508 has not been updated since it went into effect in 1998. The United States Access Board has been gathering public comments since February 2015 to review and revise Section 508 to embrace emerging technologies and trends:

"The Access Board is updating its 508 Standards and 255 Guidelines so that they adequately address accessibility and keep pace with the ever-changing nature of the technologies covered. This refresh is responsive to fundamental changes, innovations, and trends in the industry, such as the widespread convergence of technologies."

WCAG 2.0 was published in December 2008, and became an ISO standard in October 2012. The guidelines have been successful in specifying how to make content accessible for a range of technologies and devices.

The Access Board has proposed an Information and Communication Technology (ICT) Refresh to incorporate many WCAG 2.0 checkpoints into Section 508 and is known as 508 Refresh. The effective date for the 508 Refresh was delayed from November 2015 - from 6 months after the final rule is published in the Federal Register- to Fall 2016.

FAE 2.0 evaluates for both Section 508 and WCAG 2.0 checkpoints. This rating system developed specifically for this review takes into consideration WCAG 2.0 checkpoints that the Access Board is expected to adopt in its 508 Refresh in early 2017; the Access Board has been gathering public input through comment period ending October 8, 2016.

Assessment Summary

All websites failed a number of Section 508 and WCAG 2.0 Priority A standards, as well as a number of Priority AA and AAA items that will adversely impact the usability of websites by persons with disabilities. It is important to understand that a website is often composed of many pages that are organized into layers. The result of assessing a website takes into consideration all errors on every page. In this way, the resulting score reflects any errors of the website. The same class of errors on all pages is aggregated as one error; thus, many assessed websites may be interpreted as passing when they may in actuality contain reoccurring, critical errors. And this is precisely why a detailed look by technically knowledgeable practitioners at each assessed website report yields insight into these errors needing remediation.

Failed Section 508 and WCAG 2.0 Priority A items include:

- Missing or insufficient ALT attribute markup
- Missing table markup, such as TH and ID elements
- Missing form markup, such as LABEL FOR and ID elements
- JavaScript dependent functions

All evaluated websites have the following failed elements in common. When modified the following elements will significantly improve the user experience for people with disabilities, and include:

- **Table and Heading markup.** Identify structural groups of rows (THEAD for repeated table headers, TFOOT for repeated table footers, and TBODY for other groups of rows) and groups of columns (COLGROUP and COL). Ensure that markup is used for differentiating a hierarchy of headers within the page itself, and ensure that these headings are consistent across the site.
- **Headers.** Include header (H1, H2) tags to structure page content, provide context and enable text based navigation.
- **Link Lists.** Ensure that link lists are used to group similar lists of information (instead of solely through visual formatting such as the use of a table).
- **Access keys and skip navigation.** Provide users with additional keystroke combinations to facilitate navigation to frequently visited site locations as well as the ability to skip navigation.

Important Note: Originally 17 websites were assigned for assessment; an additional 18th website (PublicAlerts website, <http://www.publicalerts.org>) was requested and added post-review of the original list for this section of the report. All 18 websites were evaluated using the same criteria; however, a license change to the evaluation tool limited the assessment to only 10 pages for the PublicAlerts website (how many actual pages exist is not reported). It must also be acknowledged that the added website was evaluated at a different time from the original 17 but all 18 are a reflection of their status at that moment of evaluation nonetheless.

Training

A skilled website developer can remediate most 508 and WCGA 2.0 Priority A failures; however issues may continue to persist due to authoring tools, development platforms, and/or hosting service providers. Adopting best practices and configuring settings are often the most cost-effective remediation solutions.

In addition, engaging content creators early in the process of creating and updating new and existing web pages will mitigate potential issues. Hosting a workshop and providing guidance along with reference materials and checkpoints (see below) to train content creators on accessibility considerations can alleviate concerns relating to content and design requirements. For example, meaningful graphical elements (photos, diagrams, etc.) require alternative texts to be accessible for screen reader devices. Content creators who are aware of this requirement can provide guidance or empower a developer to include appropriate text when a graphical element is added to a website.

Detailed review results are available in *Results and Recommended Actions* section below. Resources for follow-up study are listed in *Additional References* at the end of this section.

Overview of Evaluated Websites

ID CODE	Pages scanned	WEBSITE	Section 508	WCAG 2.0	FAE 2.0 (v o.g.g)	EAD & Assocs.
01 & 01-A	35	Clackamas County Emergency Management [http://www.clackamas.us/emergency/] redirects to [http://www.clackamas.us/dm/]	Pass	A	63	●
02	33	Clark County Regional Emergency Services Agency [http://cresag11.org/]	Fail	Fail	49	○
03	203	Clark County Public Health [http://www.clark.wa.gov/public-health]	Pass	A	85	●
04	43	Multnomah County Emergency Management [http://multco.us/em]	Pass	A	87	●
05	28	Multnomah County Emergency Management (MCEM) Immigrant and Refugee Emergency Preparedness [http://multco.us/global/immigrant-and-refugee-emergency-preparedness]	Pass	A	88	●
06	29	Multnomah County Interactive demographic map [http://multco.us/global/demographics]	Pass	A	88	●
07	38	Multnomah County Tools, tips, rules on language services [http://multco.us/global/language-access]	Pass	A	88	●
08	41	Multnomah County Cultural Services Directory [http://multco.us/global/cultural-services-directory]	Pass	A	86	●
09	45	Multnomah County Department of County Human Services [http://multco.us/dchs]	Pass	A	88	●
10	40	Multnomah County Health Department [http://multco.us/health]	Pass	A	88	●
11	47	City of Portland Bureau of Emergency Management [http://www.portlandoregon.gov/pbem/index.cfm]	Pass	A	62	●
12	39	City of Portland Office of Neighborhood Involvement [http://www.portlandoregon.gov/oni/45141]	Pass	A	60	●
13	71	Washington County Emergency Management [http://www.co.washington.or.us/emergencymanagement]	Pass	A	53	●
14	74	Washington County Public Health Emergency Preparedness [http://www.co.washington.or.us/HHS/emergencypreparedness]	Pass	A	53	●
15	78	Washington County Disability, Aging & Veteran Services [http://www.co.washington.or.us/HHS/DAVS/index.cfm]	Pass	A	52	●
16	7	Washington County Emergency Management Cooperative [http://www.ocem.org]	Fail	Fail	37	○
17	1	Washington County Take 5 to Survive program [http://www.take5tosurvive.com]	Fail	Fail	42	○
18	10	PublicAlerts [http://www.publicalerts.org]	Fail	Fail	44	○

Evaluation Criteria

Conformance evaluation of website accessibility requires a combination of semi-automated evaluation tools and manual evaluation by an experienced and knowledgeable reviewer. The evaluation results in this report are based on evaluation conducted on the following date(s): July 18 – August 12, 2016 and November 25, 2016 for the added PublicAlerts website.

Always note that website reviews are always a snapshot in time and may have changed since the period of review.

The FAE tool takes into account Section 508 and WCAG 2.0 standards.

Section 508

Congress amended the Rehabilitation Act in 1998, requiring federal agencies to make their electronic and information technology accessible to people with disabilities. The law, which went into effect June 21, 2001 (36 CFR § 1194), applies to all federal agencies when they develop, procure, maintain, or use electronic and information technology. Under Section 508 (29 U.S.C. § 794d), agencies must give employees with disabilities and members of the public access to information comparable to the access available to others, complying with standards included in the act. The regulation can be found at <http://www.section508.gov>.

Individuals with disabilities can file suit for corrective action if a federal agency's website is inaccessible. Furthermore, the Federal Acquisition Requisition (FAR) legislation was amended to require agencies to apply Section 508 standards to contracts awarded on or after June 25, 2001.

Section 508 compliance for state and local government websites is covered under Title II of the ADA. The Department of Justice's Notice of Proposed Rule Making (NPRM) about web accessibility was April 2016; public comment period has been extended to October 2016, and rulemaking is expected in early 2017.

Web Content Accessibility Guidelines (WCAG)

The Web Accessibility Initiative (WAI), in coordination with World Wide Web Consortium (W3C) and other organizations around the world, pursues accessibility of the Web through five primary areas: technology, guidelines, tools, education and outreach, and research and development. Web Content Accessibility Guidelines 2.0 (WCAG) were developed by the WAI to promote greater accessibility of Websites, browsers, and authoring tools, in order to make it easier for people with disabilities to use the Web. The guidelines are a series of checkpoints describing website elements that must be addressed to ensure accessibility for persons with disabilities.

WCAG 2.0 Priorities

Each checkpoint has a priority level assigned by the Working Group based on the impact on accessibility by that checkpoint element.

- [Priority A] A web content developer must satisfy this checkpoint. Otherwise, one or more groups will find it impossible to access information in the document. Satisfying this checkpoint is a basic requirement for some groups to be able to use web documents.
- [Priority AA] A web content developer should satisfy this checkpoint. Otherwise, one or more groups will find it difficult to access information in the document. Satisfying this checkpoint will remove significant barriers to accessing Web documents.
- [Priority AAA] A web content developer may address this checkpoint. Otherwise, one or more groups will find it somewhat difficult to access information in the document. Satisfying this checkpoint will improve access to Web documents. Some checkpoints specify a priority level that may change under certain (indicated) conditions. As with Section 508, many of the accessibility solutions described in WAI materials also benefit web users who do not have disabilities, allowing web content to be more available to all users, regardless of how they are

accessing the information. More detailed information regarding these guidelines can be found at <http://www.w3.org/TR/WCAG20/>.

Evaluating websites for Section 508 and WCAG 2.0 standards accessibility compliance involves conducting an assessment against the standards, providing technical recommendations for resolving the issues that are revealed, and implementing an on-going maintenance program. This project included assessment of specified paths/pages against the Section 508 and WCAG 2.0 standards, and recommendations for enhancing the user interface for accessibility due to the issues uncovered.

§ 1194.22 Standards Areas for the Web (Section 508)

508 Standards	Description
Alt text on images and image maps	Provide descriptive text for every image.
Color	Use color only as a redundant code.
Style sheets	Ensure that the document is readable when style sheets are turned off.
Table cell identification	Use HTML markup to identify row and column headers for data tables.
Frame titling	Use name and title attributes for each frame; use title tags on the pages as well.
JavaScript	Use a screen reader to ensure that JavaScript is functioning correctly.
Electronic forms	Use alternative text or labels for all form elements.
Skip navigation	Provide users with a way to skip repetitive navigation links.
Flicker and timed responses	Avoid rapidly flickering images and make sure that pages requiring a timed response have a pause button as well.

W3C's Web Content Accessibility Guidelines 2.0

WCAG 2.0 Standards	Description
Alt text on images and image maps; multimedia (Priority A)	Provide descriptive text for every image and alternative text for multimedia.
Color (Priority A and AA)	Use color only as a redundant code. Ensure that foreground and background combinations provide sufficient contrast.
Style sheets (Priority AA)	Ensure that the document is readable when style sheets are turned off. Use style sheets to control layout and presentation. Use relative rather than absolute units in markup language attribute values and style sheet property values.
Document structure and content (Priority AA and AAA)	Use header elements to convey document structure and use them according to specification. Place distinguishing information at the beginning of headings, paragraphs, lists, etc. Create a logical tab order through links, form controls and objects. Divide large blocks of information into manageable groups. Provide metadata to add semantic information to pages and sites. Identify the primary natural language of a document. Provide information so that users may receive documents according to their preferences (language, content type, etc.). Provide information about general site layout (as in a site map). Use navigation mechanisms and presentation

	styles consistently. Do not use tables for site layout unless the table makes sense when linearized. If a table is used for site layout, do not use structural markup for visual formatting.
Table cell identification (Priority A)	Use HTML markup to identify row and column headers for data tables. For data tables that have two or more logical levels of row or column headers, associate data cells and header cells.
Frame and page titling (Priority A)	Use name and title attributes for each frame; use title tags on pages.
JavaScript and Java; automated functions (Priority A and AA)	Make programmatic elements directly accessible or compatible with assistive technologies. Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported. Ensure that equivalents for dynamic content are updated when the dynamic content changes. Ensure that event handlers and elements with their own interfaces are independent of input devices. Until user agents (such as AT devices) provide user control over page behavior: avoid causing content to blink; do not auto-refresh pages; do not redirect pages automatically; do not cause pop-ups or other windows to appear and do not change the current window without informing the user; and avoid movement in pages.
Electronic forms (Priority AA)	Use alternative text or labels for all form elements. Associate labels explicitly with their controls.
Flicker and timed responses	Avoid rapidly flickering images and make sure that pages requiring a timed response have a pause button as well.
Links (Priority AA and AAA)	Clearly identify the target of each link. Until user agents (such as AT devices) render adjacent links distinctly, include printable characters between them.
Supplemental information and navigation (Priority AA and AAA)	<p>Provide additional information for adaptive technology users that will facilitate comprehension, such as: specify the expansion of each abbreviation or acronym where it first occurs; provide summaries for tables; provide abbreviations for table header labels; supplement text with graphic or auditory presentations; and describe the purpose of frames and how frames relate to each other if not obvious by frame titles alone.</p> <p>Provide elements that will facilitate navigation for adaptive technology users, such as: keyboard shortcuts to important links, form controls, and groups of form controls; group related links and provide a way to bypass them; and provide a means to skip over multi-line ASCII art.</p>
Valid Code (Priority AA)	Create documents that validate to published formal grammars. Mark up lists and list items properly; mark up quotations. Use W3C technologies when they are available and appropriate for a task, the latest versions, and avoid deprecated features.

FAE Specifics

Several scanning tools were considered, and Functional Accessibility Evaluator (FAE) 2.0 (version 0.9.9) was selected as the primary evaluation tool. FAE is a project of the Open Accessibility Alliance and OpenAjax Accessibility Task Force. FAE is hosted at the Illinois Center for Information Technology and Web Accessibility, a Disability Resources and Educational Services at the College of Applied Health Sciences of the University of Illinois at Urbana-Champaign.

FAE can be accessed at <http://fae20.cita.illinois.edu/>.

The Functional Accessibility Evaluator (FAE) 2.0 analyzes web pages for requirements defined by the [W3C Web Content Accessibility Guidelines 2.0](#) Priority A and AA Success Criteria. The rules support accessible and usable design by enforcing coding practices that use of the latest accessibility technologies like the [W3C Accessible Rich Internet Application \(ARIA\) 1.0](#) and [W3C HTML5 Specification](#) parameters and coding techniques that support features that improve usability of web resources by people with disabilities

Note: FAE is free to use but account registration is required to have unlimited use to run website report and analyze individual pages.

Note: Evaluation of websites (second-level pages) did not take into consideration accessibility compliance for downloadable files (i.e. PDFs) or multimedia contents (i.e. closed captions and subtitles for video, and transcripts for audio). Additionally, color contrast for foreground and background was not evaluated.

Depth of Evaluation: For the purpose of this evaluation, second-level pages of each website were analyzed. FAE can be configured to analyze:

- **Top-level page:** the page specified by the URL will be analyzed;
- **Second-level pages:** all pages linked from the top-level page to be included in the analysis, or
- **Third-level pages:** all pages linked from the top- and second-level pages to be included in the analysis.
- **Rule Categories:** FAE organizes the analysis of documents based on the following rule categories:
 - **Landmark:** Use ARIA landmark roles to structure the content of each page and identify major sections of content, thus making them more findable and navigable. The use of landmarks will, in many cases, reflect the visual styling and page layouts that web designers utilize to set apart various sections of content.
 - **Heading:** Use heading elements (H1-H6) to provide appropriate labels for landmarks, and to identify subsections of content within landmarks.
 - **Style/Content:** Use proper HTML markup to identify the semantics and language of text content. Ensure that text is readable by adhering to color contrast guidelines, and that information is not conveyed solely by the use of color, shape, location or sound.
 - **Image:** Provide appropriate text alternatives for static images and graphics.
 - **Link:** Use link text that properly describes the target of each link. Ensure consistency and uniqueness for links that are usable, predictable and understandable.
 - **Table:** Provide table captions or other meta-information as needed. Provide row and column header references for data cells of data tables. Ensure that tables used for layout properly linearize text content.
 - **Form:** Provide meaningful labels for form elements and usable and understandable error feedback as needed.
 - **Widget:** Use appropriate event handlers on elements to support native interactivity using JavaScript. Ensure that custom widgets created using JavaScript support keyboard interaction and include ARIA markup to describe their roles, properties and states.

- **Audio/Video:** Provide appropriate text transcripts, captions or audio descriptions for elements used in rendering audio and video content.
- **Keyboard:** Provide logical and sequential keyboard navigation among interactive elements such as links and form controls. Use standard models of keyboard interaction for custom widgets.
- **Timing:** Eliminate accessibility problems caused by time limits on input and by content that moves, scrolls, flashes or auto-updates.
- **Site Navigation:** Ensure the consistent labeling and ordering of recurrent page sections across all pages within a website. Provide a meaningful title for each page within a website.

Results and Recommended Actions

Implementation Status Definitions [taken from FAE website]

Implementation Score

- The implementation score is based on the automated rule results across all pages and ranges from 0 to 100.
- '-' means there were no automated rule results for that group.

Implementation Message

- Gives a general idea of the overall implementation of the rules for a website.

Message	Score	Description
<i>Complete</i>	100	Complete means all automated rules have passed and there are no manual checks.
<i>Almost Complete</i>	95-99	Almost Complete means that you seem to understand the accessibility requirements of the automated rules, and are close to fully implementing their requirements on all pages within the website.
<i>Partial Impl.</i>	50-94	Partial Implementation means that you may understand at least some of the accessibility requirements of the automated rules. Please re-read the accessibility requirement and review the techniques before trying to improve the accessibility
<i>Incomplete</i>	0-49	Incomplete means that you do not understand the accessibility requirements of the automated rules or did not consider accessibility in the design of the website. Please read the accessibility requirements and review the techniques before trying to improve the accessibility
<i>Manual Checks</i>	100 or "-"	Manual Checks means all automated rules have passed or there were no automated results, but manual checks are needed to verify accessibility. Start with the website and page level manual checks since they affect website and page navigation and identification of content and then start on the element level manual checks.

Required Fix and Recommendation

- Selected required fixes and recommendations are listed for the top-level page of each website; additional required fixes and recommendations for each second-level pages are available when running the scanning tool (too detailed to include in this report).

01: Clackamas County Emergency Management Summary Report

01

August 10, 2016 13:09

Pages: 35 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.clackamas.us/emergency/>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	12	4	32	13

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	3	-	3	2	3	Incomplete	
Headings	1	1	-	2	95	Almost Complete	
Styling/Content	3	1	7	-	47	Incomplete	
Images	-	-	3	3	100	Manual Checks	
Links	1	1	1	-	17	Incomplete	
Tables	1	-	-	-	0	Incomplete	
Forms	3	-	5	3	52	Partial	
Widgets/Scripting	-	-	-	3	100	Complete	
Audio/Video	-	-	1	-	-	Manual Checks	
Keyboard Support	-	1	3	-	96	Almost Complete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	12	4	32	13	63	Partial	

Recommendation: recode so that final "/" is not needed; otherwise the result is error for the page instead of redirecting to <http://www.clackamas.us/dm/>

01-A: Clackamas County Emergency Management (redirect) Summary Report

01-A

August 10, 2016 13:38

Pages: 35 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.clackamas.us/dm/>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	12	4	32	13

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	3	-	3	2	3	Incomplete	
Headings	1	1	-	2	95	Almost Complete	
Styling/Content	3	1	7	-	47	Incomplete	
Images	-	-	3	3	100	Manual Checks	
Links	1	1	1	-	17	Incomplete	
Tables	1	-	-	-	0	Incomplete	
Forms	3	-	5	3	52	Partial	
Widgets/Scripting	-	-	-	3	100	Complete	
Audio/Video	-	-	1	-	-	Manual Checks	
Keyboard Support	-	1	3	-	96	Almost Complete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	12	4	32	13	63	Partial	

Required fix: all content must be contained in landmarks.

Recommendation: use descriptive URL; "dm" is ambiguous.

Recommendation: enable phone number as a hyperlink.

02: Clark County Regional Emergency Services Agency Summary Report

02

August 10, 2016 13:07

Pages: 33 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://cresa911.org/>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	20	7	46	11

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	2	-	3	3	60	Partial	
Headings	1	4	-	-	77	Partial	
Styling/Content	2	1	7	1	25	Incomplete	
Images	2	-	4	1	78	Partial	
Links	1	1	1	1	25	Incomplete	
Tables	1	1	3	1	40	Incomplete	
Forms	5	-	5	1	37	Incomplete	
Widgets/Scripting	5	-	3	3	55	Partial	
Audio/Video	-	-	8	-	-	Manual Checks	
Keyboard Support	1	-	5	-	0	Incomplete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	4	-	-	Manual Checks	
All Categories	20	7	46	11	49	Incomplete	

Required fix: all content must be contained in landmarks.

Required fix: link text must describe link target.

Required fix: widgets must support keyboard.

Required fix: iframe must have accessible name.

03: Clark County Public Health Summary Report

03

August 10, 2016 13:15

Pages: 203 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://www.clark.wa.gov/public-health>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	21	6	44	27

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	13	92	Almost Complete	
Headings	2	3	-	2	71	Partial	
Styling/Content	2	1	7	1	48	Incomplete	
Images	1	-	5	1	99	Almost Complete	
Links	2	1	1	-	8	Incomplete	
Tables	3	1	1	-	55	Partial	
Forms	4	-	6	5	98	Almost Complete	
Widgets/Scripting	5	-	-	4	92	Almost Complete	
Audio/Video	-	-	9	-	-	Manual Checks	
Keyboard Support	1	-	4	1	99	Almost Complete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	21	6	44	27	85	Partial	

Required fix: widgets must support keyboard.

Required fix: widgets must have child role.

Required fix: onClick must have role.

Required fix: headings must be properly nested.

04: Multnomah County Emergency Management Summary Report

04

August 10, 2016 13:15

Pages: 43 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://multco.us/em>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	10	5	42	30

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	12	92	Almost Complete	
Headings	2	2	-	3	93	Almost Complete	
Styling/Content	1	1	7	1	64	Partial	
Images	-	-	5	2	100	Manual Checks	
Links	1	1	1	1	42	Incomplete	
Tables	-	1	1	3	75	Partial	
Forms	4	-	5	3	81	Partial	
Widgets/Scripting	1	-	2	4	98	Almost Complete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	-	5	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	10	5	42	30	87	Partial	

Required fix: all content must be contained in landmarks.

Required fix: headings must be properly nested.

Required fix: form control must have labels.

05: Multnomah County Emergency Management (MCEM) Immigrant and Refugee Emergency Preparedness Summary Report

05

August 10, 2016 13:16

Pages: 28 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://multco.us/global/immigrant-and-refugee-emergency-preparedness>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	9	5	42	29

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	12	92	Almost Complete	
Headings	2	2	-	3	96	Almost Complete	
Styling/Content	1	1	7	1	65	Partial	
Images	-	-	5	2	100	Manual Checks	
Links	1	1	1	1	39	Incomplete	
Tables	-	1	1	3	75	Partial	
Forms	3	-	5	4	82	Partial	
Widgets/Scripting	1	-	2	2	99	Almost Complete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	-	5	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	9	5	42	29	88	Partial	

Required fix: all content must be contained in landmarks.

Required fix: form controls must have labels.

Recommendation: replace b and i elements.

06: Multnomah County Interactive demographic map Summary Report

06

August 10, 2016 13:16

Pages: 29 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://multco.us/global/demographics>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	9	4	42	30

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	12	92	Almost Complete	
Headings	2	1	-	4	96	Almost Complete	
Styling/Content	1	1	7	1	63	Partial	
Images	-	-	5	2	100	Manual Checks	
Links	1	1	1	1	39	Incomplete	
Tables	-	1	1	3	75	Partial	
Forms	3	-	5	4	82	Partial	
Widgets/Scripting	1	-	2	2	99	Almost Complete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	-	5	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	9	4	42	30	88	Partial	

Required fix: all content must be contained in landmarks.

Required fix: form control must have labels.

Recommendation: link text must be unique.

07: Multnomah County Tools, tips, rules on language services

Summary Report

07

August 10, 2016 13:17

Pages: 38 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://multco.us/global/language-access>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	9	4	42	30

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	12	92	Almost Complete	
Headings	2	1	-	4	98	Almost Complete	
Styling/Content	1	1	7	1	67	Partial	
Images	-	-	5	2	100	Manual Checks	
Links	1	1	1	1	40	Incomplete	
Tables	-	1	1	3	75	Partial	
Forms	3	-	5	4	81	Partial	
Widgets/Scripting	1	-	2	2	99	Almost Complete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	-	5	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	9	4	42	30	88	Partial	

Required fix: link text must describe link target.

Required fix: all content must be contained in landmarks.

Required fix: form controls must have labels.

Recommendation: replace b and i elements.

08: Multnomah County Cultural Services Directory Summary Report

08

August 10, 2016 13:17

Pages: 41 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://multco.us/global/cultural-services-directory>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	10	5	42	30

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	12	92	Almost Complete	
Headings	2	2	-	3	94	Almost Complete	
Styling/Content	1	1	7	1	54	Partial	
Images	1	-	5	1	99	Almost Complete	
Links	1	1	1	1	42	Incomplete	
Tables	-	1	1	3	75	Partial	
Forms	3	-	5	4	77	Partial	
Widgets/Scripting	1	-	2	4	95	Almost Complete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	-	5	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	10	5	42	30	86	Partial	

Required fix: all content must be contained in landmarks.

Required fix: form controls must have labels.

Required fix: label must reference control.

Recommendation: link text must be unique.

09: Multnomah County Department of County Human Services Summary Report

09

August 10, 2016 13:18

Pages: 45 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://multco.us/dchs>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	10	6	42	29

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	12	92	Almost Complete	
Headings	2	3	-	2	96	Almost Complete	
Styling/Content	1	1	7	1	66	Partial	
Images	-	-	5	2	100	Manual Checks	
Links	1	1	1	1	40	Incomplete	
Tables	-	1	1	3	75	Partial	
Forms	4	-	5	3	81	Partial	
Widgets/Scripting	1	-	2	4	98	Almost Complete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	-	5	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	10	6	42	29	88	Partial	

Required fix: link text must describe link target.

Required fix: all content must be contained in landmarks.

Required fix: form control must have labels.

Recommendation: link text must be unique.

10: Multnomah County Health Department Summary Report

10

August 10, 2016 13:18

Pages: 40 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <https://multco.us/health>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	9	5	42	31

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	1	-	2	12	92	Almost Complete	
Headings	2	2	-	3	97	Almost Complete	
Styling/Content	1	1	7	1	61	Partial	
Images	-	-	5	2	100	Manual Checks	
Links	1	1	1	1	42	Incomplete	
Tables	-	1	1	3	75	Partial	
Forms	3	-	5	4	82	Partial	
Widgets/Scripting	1	-	2	4	98	Almost Complete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	-	5	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	9	5	42	31	88	Partial	

Required fix: all content must be contained in landmarks.

Required fix: form control must have labels.

Recommendation: link text must be unique.

Recommendation: replace b and i elements.

11: City of Portland Bureau of Emergency Management Summary Report

11

August 10, 2016 13:19

Pages: 47 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.portlandoregon.gov/pbem/index.cfm>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	25	7	48	18

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	5	-	4	7	74	Partial	
Headings	1	4	-	2	65	Partial	
Styling/Content	3	1	7	-	8	Incomplete	
Images	1	-	5	1	71	Partial	
Links	1	1	1	1	3	Incomplete	
Tables	1	1	2	1	28	Incomplete	
Forms	7	-	6	2	59	Partial	
Widgets/Scripting	5	-	-	4	52	Partial	
Audio/Video	-	-	9	-	-	Manual Checks	
Keyboard Support	1	-	5	-	97	Almost Complete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	25	7	48	18	62	Partial	

Required fix: all content must be contained in landmarks.

Required fix: link text must describe link target.

Required fix: headings must be properly nested.

Required fix: images must have alt text.

Recommendation: link text must be unique.

12: City of Portland Office of Neighborhood Involvement Summary Report

12

August 10, 2016 13:25

Pages: 39 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.portlandoregon.gov/oni/45141>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	15	6	47	20

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	3	-	3	8	74	Partial	
Headings	1	3	-	2	58	Partial	
Styling/Content	2	1	8	-	0	Incomplete	
Images	1	-	4	2	71	Partial	
Links	1	1	1	-	3	Incomplete	
Tables	1	1	2	1	33	Incomplete	
Forms	4	-	6	4	59	Partial	
Widgets/Scripting	2	-	-	3	45	Incomplete	
Audio/Video	-	-	9	-	-	Manual Checks	
Keyboard Support	-	-	5	-	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	6	-	-	Manual Checks	
All Categories	15	6	47	20	60	Partial	

Required fix: all content must be contained in landmarks.

Required fix: images must have alt text.

Required fix: all landmarks must be uniquely identifiable.

Recommendation: link text must be unique.

13: Washington County Emergency Management Summary Report

13

August 10, 2016 13:26

Pages: 71 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.co.washington.or.us/emergencymanagement>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	20	6	36	10

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	3	-	2	-	0	Incomplete	
Headings	1	3	-	-	75	Partial	
Styling/Content	1	-	8	-	98	Almost Complete	
Images	1	-	5	1	85	Partial	
Links	1	1	1	-	4	Incomplete	
Tables	1	1	1	2	2	Incomplete	
Forms	6	-	4	3	58	Partial	
Widgets/Scripting	4	-	1	3	42	Incomplete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	1	4	1	99	Almost Complete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	2	-	2	-	0	Incomplete	
All Categories	20	6	36	10	53	Partial	

Required fix: all content must be contained in landmarks.

Required fix: headings must be properly nested.

Required fix: images must have alt text.

Required fix: identify table markup as data or layout.

14: Washington County Public Health Emergency Preparedness Summary Report

14

August 10, 2016 13:26

Pages: 74 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.co.washington.or.us/HHS/emergencypreparedness>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	21	6	36	11

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	3	-	2	-	0	Incomplete	
Headings	1	3	-	-	74	Partial	
Styling/Content	1	-	8	-	93	Almost Complete	
Images	1	-	5	1	85	Partial	
Links	1	1	1	-	12	Incomplete	
Tables	1	1	1	2	2	Incomplete	
Forms	6	-	4	3	59	Partial	
Widgets/Scripting	4	-	1	5	42	Incomplete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	1	5	-	99	Almost Complete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	3	-	1	-	0	Incomplete	
All Categories	21	6	36	11	53	Partial	

- Required fix:** all content must be contained in landmarks.
- Required fix:** link text must describe the link target.
- Required fix:** images must have alt text.
- Required fix:** identify table markup as data or layout.
- Required fix:** keyboard/mouse/drag events must have roles.

15: Washington County Disability, Aging & Veteran Services Summary Report

15

August 10, 2016 13:27

Pages: 78 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.co.washington.or.us/HHS/DAVS/index.cfm>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	20	6	36	10

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	3	-	2	-	0	Incomplete	
Headings	1	3	-	-	74	Partial	
Styling/Content	1	-	8	-	98	Almost Complete	
Images	1	-	5	1	86	Partial	
Links	1	1	1	-	3	Incomplete	
Tables	1	1	1	2	2	Incomplete	
Forms	6	-	4	3	58	Partial	
Widgets/Scripting	4	-	1	3	42	Incomplete	
Audio/Video	-	-	5	-	-	Manual Checks	
Keyboard Support	-	1	4	1	99	Almost Complete	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	2	-	2	-	0	Incomplete	
All Categories	20	6	36	10	52	Partial	

Required fix: all content must be contained in landmarks.

Required fix: link text must describe the link target.

Required fix: images must have alt text.

Required fix: keyboard/mouse/drag events must have roles.

16: Washington County Emergency Management Cooperative Summary Report

16

August 10, 2016 13:32

Pages: 7 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.ocem.org>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	6	5	23	6

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	2	-	2	-	0	Incomplete	
Headings	-	3	-	1	15	Incomplete	
Styling/Content	1	1	6	1	35	Incomplete	
Images	-	-	4	3	100	Manual Checks	
Links	-	1	2	-	0	Incomplete	
Tables	1	-	-	-	0	Incomplete	
Forms	-	-	-	-	-	no results	
Widgets/Scripting	-	-	-	-	-	no results	
Audio/Video	-	-	1	-	-	Manual Checks	
Keyboard Support	-	-	3	1	100	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	2	-	2	-	0	Incomplete	
All Categories	6	5	23	6	37	Incomplete	

Required fix: all content must be contained in landmarks.

Required fix: identify table markup as data or layout.

Required fix: page must use language code.

Recommendation: replace b and i elements.

17: Washington County Take 5 to Survive program Summary Report

17

August 10, 2016 16:11

Pages: 1 (Included URLs) Depth: 2 Ruleset: HTML5 and ARIA Techniques

URL: <http://www.take5tosurvive.com>

	Violations	Warnings	Manual Checks	Passed
Number of Rules	6	2	37	6

Default Sort

Rule Category	Number of Rules				Implementation Status		
	V	W	MC	P	Score	Message	Icon
Landmarks	2	-	2	-	0	Incomplete	
Headings	-	1	-	3	75	Partial	
Styling/Content	2	-	7	-	0	Incomplete	
Images	-	-	4	3	100	Manual Checks	
Links	-	1	2	-	0	Incomplete	
Tables	-	-	1	-	-	Manual Checks	
Forms	-	-	-	-	-	no results	
Widgets/Scripting	2	-	-	-	0	Incomplete	
Audio/Video	-	-	9	-	-	Manual Checks	
Keyboard Support	-	-	5	-	-	Manual Checks	
Timing	-	-	3	-	-	Manual Checks	
Site Navigation	-	-	4	-	-	Manual Checks	
All Categories	6	2	37	6	42	Incomplete	

Required fix: all content must be contained in landmarks.

Required fix: page must use language code.

Required fix: keyboard/mouse/drag events must have roles.

Required fix: onClick must have role.

18: PublicAlerts website

Report Title: <http://www.publicalerts.org/>

November 22, 2016 02:15

Pages: 10 (Included URLs) Maximum Pages: 10 Depth: 2 Ruleset: [HTML5 and ARIA Techniques](#)

URL: <http://www.publicalerts.org/>

Summary

[✉ E-mail Report](#)

	Violations	Warnings	Manual Checks	Passed
Number of Rules	8	3	36	25

Rule Category [WCAG Guidelines](#) [Rule Scope](#)

[Default Sort](#)

Rule Group	Number of Rules				Implementation Level		
	V	W	MC	P	N/A	Score	Status
Landmarks	3	-	1	9	6	71	PI-R
Headings	-	2	-	3	3	79	PI
Styles/Content	1	-	7	1	14	18	NI-R
Images	-	-	4	3	-	43	NI-R
Links	-	1	2	-	1	0	R
Tables	-	-	-	-	10	-	na
Forms	2	-	5	4	8	54	PI-R
Widgets/Scripts	2	-	2	5	4	77	PI-R
Audio/Video	-	-	1	-	12	0	R
Keyboard	-	-	5	-	1	14	NI-R
Timing	-	-	3	-	-	0	R
Site Navigation	-	-	6	-	-	0	R
All Rule Groups	8	3	36	25	59	44	NI-R

Required fix: all content must be contained in landmarks.

Required fix: link text must be unique.

Required fix: keyboard/mouse/drag events must have roles.

Required fix: onClick must have role.

Required fix: text must exceed CCR threshold.

Additional Resources

Section 508

U.S. Department of Justice: Section 508

<http://www.justice.gov/crt/section-508-home-page-1>

U.S. Access Board: Section 508

<http://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards>

Information and Communication Technology (ICT) Standards and Guidance Refresh – also known as 508 Refresh - Portal

<http://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh>

ADA Title II (Accessibility for State and local government websites)

<http://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201510&RIN=1190-AA65>

World Wide Web Consortium

Web Content Accessibility Guidelines (WCAG) Overview

<http://www.w3.org/WAI/intro/wcag.php>

WCAG 2.0

<http://www.w3.org/TR/WCAG20/>

How to Meet WCAG 2.0 (Quick Reference)

<http://www.w3.org/WAI/WCAG20/quickref/>

Designing for Inclusion

<http://www.w3.org/WAI/users/Overview.html>

Inclusive design, design for all, digital inclusion, universal usability, and similar efforts address a broad range of issues in making technology available to and usable by all people whatever their abilities, age, economic situation, education, geographic location, language, etc. *Accessibility* focuses on people with disabilities — people with auditory, cognitive, neurological, physical, speech, and visual impairments. The documents below explore some of the overlaps between inclusive design and web accessibility, and help managers, designers, developers, policy makers, researchers, and others optimize their efforts in these overlapping areas.

- How People with Disabilities Use the Web
- [Web Accessibility and Older People](#): Meeting the Needs of Ageing Web Users
- [Mobile Accessibility](#)
- [Web Content Accessibility and Mobile Web](#): Making a Website Accessible Both for People with Disabilities and for Mobile Devices

Additional Tools to Consider

W3C maintains a list of web accessibility evaluation tools for Section 508 Standards and WCAG 2.0 compliance. Selected tools are listed below for consideration; the complete list of tools is at

<http://www.w3.org/WAI/ER/tools/>

[A11Y Compliance Platform](#) by Bureau of Internet Accessibility

Tools, reports and services to help organizations achieve, maintain and defend the accessibility of their organization's websites. Standards and guidelines used include Section 508, Web Content Accessibility Guidelines (WCAG) & Americans with Disabilities (ADA).

<http://www.boia.org> Version: Version 5 Release 3.4, Released: 2014-Nov-13

[Accessibility color wheel](#) by Giacomo Mazzocato

A tool that helps in the choice of a color pair (text/background) to use in a web page. It simulates three kinds of color blindness and it shows the result of W3C algorithms that reveal if the colors are accessible
<http://gmazzocato.altervista.org/colorwheel/wheel.php> Version: 2.5, Released: 2013-Apr-27

[Accessibility Developer Tools](#) by Google Accessibility

Adds an Accessibility audit, and an Accessibility sidebar pane in the Elements tab, to your Chrome Developer Tools.

17 audit rules; most documented at <http://goo.gl/L7gCXu>

Sidebar pane in Elements tab provides extra debugging information, for example color contrast values and color suggestions, missing required ARIA attributes, reason for lack of visibility, accessible name calculation information, etc.

<http://chrome.google.com/webstore/detail/accessibility-developer-t/fpkknkljclfencbdbgkenhalefipecmb?hl=en>, Version: 2.9.2, Released: 2014-Jun-25

[Acrobat DC Pro](#) by Adobe

Adobe Acrobat XI Pro includes accessibility checking tools which can identify many accessibility issues in PDF documents and also provides capabilities to address the identified issues.

<http://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html>, Version: 11.0.10, Released: 2014-Dec-09

[AInspector Sidebar](#) by University of Illinois Urbana-Champaign

AInspector Sidebar is a Firefox add-on that evaluates the DOM of a web page for WCAG 2.0 Level A and AA requirements. Two rulesets are available to use in evaluation: HTML4 techniques and HTML5+ARIA techniques. Provides summary and element level results.

<http://addons.mozilla.org/en-US/firefox/addon/ainspector-sidebar>, Version: 0.16.8.4, Released: 2015-Mar-12

[Siteimprove Accessibility](#) by Siteimprove

Siteimprove monitors your site for WCAG 2.0 accessibility conformance in web content and PDF documents. Our subscription-based service offers an intuitive interface, unlimited training and support, customized reporting based on website responsibilities and high priority areas, and CMS integration.

<http://siteimprove.com/features/web-accessibility/>, Released: 2014-Jul-08

[SortSite](#) by Powermapper Software

SortSite is a standards-based website scanning tool that helps with accessibility evaluation. It supports 508, WCAG 2, HTML validation and checks broken links. It is available as a subscription web application, a self-hosted server installation and a desktop application for Windows and Macintosh.

<http://www.powermapper.com>, Released: 2014-Sep-17