A Report on the Findings of the MWPERLC Needs Assessment for Tribal and State-Local Advisory Board Members
Executive Summary

At the beginning of 2016, the Mountain West Preparedness and Emergency Response Learning Center (MWPERLC) developed and distributed a needs assessment to better understand the capacity, capability, communication, and collaboration gaps in public health and hospital preparedness initiatives across the intermountain west region. Representatives from the MWPERLC service area were asked to complete the online needs assessment in preparation for the in-person MWPERLC Advisory Board (MAB) Meeting convened on April 4-6th, 2016 in Tucson, Arizona.

These needs assessment results highlight the range of exercise, training, planning, and technical assistance needs felt by the diverse tribal, state, and local emergency preparedness partners within the MWPERLC service area, consisting of Arizona, New Mexico, Colorado, Utah, and Nevada.

While the needs assessment was implemented to identify the wider range of gaps and needs of the preparedness workforce in our service area, the MAB was convened to both validate and contextualize the findings of the needs assessment. Therefore, prior to survey distribution, the MWPERLC identified key partners in our service area to participate on a newly formed Advisory Board tasked with providing input and guidance on the Center’s programmatic activities. The Advisory Board was organized into two distinct groups, a Tribal Advisory Board (TAB) and a State/Local Advisory Board (SLAB). These stakeholders consist of a broad range of disciplines including public health, emergency medical services, emergency managers, hospitals, and academia. The needs assessment was distributed to members of the TAB, the SLAB, other Advisory Board constituents, and the MWPERLC listserv.

A total of 66 respondents completed the online survey with a majority of the respondents representing state and local health departments, Public Health Emergency Preparedness (PHEP) Programs, and Hospital Preparedness Programs (HPP). The needs assessment generated 41 respondents from state and local partners, 15 from tribal partners, 6 from academic partners, and 4 from general partners.

Key Findings from the needs assessment included:

- A majority of respondents reported that their agency has developed a Multi-Year Training and Exercise Plan (76%) and an All-Hazards Plan (84%). This finding indicates that many responding preparedness agencies within the MWPERLC service seem to have a baseline emergency plan through which preparedness efforts can be initiated and that agencies are engaging in long-term plan development and evaluation through trainings and exercises;
- Collaboration among tribal, state, and local preparedness partners is sufficient but areas for improvement still exist;
- Emergency Operations Coordination is a key identified needs for both PHEP and HPP programs among tribal, state and local partners.
- Tribal and state-local partners each identified their respective PHEP and HPP priorities. The results are summarized in the following graphic.
The findings from the survey inform how MWPERLC will meet the needs identified by our tribal, state, and local preparedness partners. The results also help to identify ways to bridge gaps in collaboration when integrating tribal populations into regional multijurisdictional response efforts.
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Background

On January 1, 2016, the Mountain West Preparedness and Emergency Response Learning Center (MWPERLC), housed at the University of Arizona’s Mel and Enid Zuckerman College of Public Health (MEZCOPH), was awarded a cooperative agreement by the Association of Schools and Programs of Public Health (ASPPH) and the Center for Disease Control and Prevention (CDC) Office of Public Health Preparedness and Response (OPHPR). The grant is focused on the translation, dissemination, and evaluation of research products and trainings to improve public health preparedness and response practices, policies, and programs. The overall goal of the MWPERLC project is centered on “Building an Effective Tribal and Multijurisdictional Response Network to Improve Preparedness and Response” by providing tailored and adapted training; technical assistance; and exercise support.

In an effort to achieve the goal of the project, an advisory board was created. The MWPERLC Advisory Board (MAB) consists of two separate advisory boards: the Tribal Advisory Board (TAB) and the State-Local Advisory Board (SLAB). The MAB includes representatives from federal, tribal, state, and local agencies who have a comprehensive range of knowledge and expertise in public health emergency preparedness. These individuals represent a wide array of agencies and jurisdictions and provide the MWPERLC team with multiple perspectives on the preparedness challenges faced within their respective jurisdictions and diverse communities. The MAB supports the center’s preparedness training and educational resource efforts to advance emergency preparedness programs. The MAB’s role includes providing the MWPERLC with consistent input, advice, and recommendations to inform the strategic direction of the center’s activities and collaboratively enhance tribal and multijurisdictional response efforts to improve practice across public health and healthcare sector partners. In an effort to better understand the preparedness needs of our partners, the MWPERLC developed and disseminated an online needs assessment to identify gaps in capacity, capability, communication, and collaboration. The needs assessment was a critical step in shaping the MWPERLC’s strategic direction to provide evidence-based interventions designed to meet the unique needs of our tribal, state, and local regional partners in Arizona, Colorado, Nevada, New Mexico and Utah (Figure 1).
The purpose of the needs assessment was two-fold: 1) to validate the existing preparedness and response gaps of our tribal partners and 2) to identify collaboration gaps between tribal partners and their respective state, local, and territorial preparedness partners.

The findings from the needs assessment will guide the selection and adaptation of training and research products previously developed by the Preparedness and Emergency Response Learning Centers (PERLC) and the Preparedness and Emergency Response Research Centers (PERRC). The CDC funded PERRC and PERLC programs, established in 18 Council on Education for Public Health (CEPH) accredited schools of public health, have developed a plethora of research and public health workforce development products (in the form of trainings and educational materials) to strengthen and improve national public health preparedness and response capabilities. By utilizing these existing products, the MWPERLC can efficiently allocate resources to maximize their use and reach within our service area.

**Needs Assessment Methodology**

**Needs Assessment Development**

The emergency preparedness system consists of a wide range of system partners representing disciplines such as public health, healthcare, emergency medical services, law enforcement, academia, business, and non-profit (to name a few). The complexity of the system posed some initial challenges for the MWPERLC team in designing a survey tool capable of capturing the wide array of challenges, concerns, and needs of all preparedness system partners.

The largest group of preparedness grant programs around the nation include the Public Health Emergency Preparedness (PHEP) program, funded by the CDC, and the Hospital Preparedness Program (HPP), funded by the Office of the Assistant Secretary for Preparedness and Response (ASPR). Agencies funded under these grants are the primary constituents of the MWPERLC’s training program. As such, our goal with the target group for the needs assessment was to ensure representatives from these programs would participate in the survey, regardless of their primary funding source, size, location, or tribal/non-tribal status. The resulting tool therefore needed to be broad enough to capture a range of responses from these system partners, yet flexible enough to allow for specificity of programs. In order to accomplish this, the MWPERLC decided to create four separate needs assessments. Table 1 provides a summary of the four different surveys and respective question topics relevant to each survey.

The MWPERLC also had to consider and weigh the options for how best to collect the data. Although the information may have been harnessed via key informant interviews or focus groups, an online survey tool was deemed most appropriate to ensure anonymity of responders; enable collection of a larger number of responses in a timely manner; and cost effectiveness. Focus groups and in-person interviews may have been ideal mechanisms to collect in-depth, contextual and qualitative data to understand key issues but would have been difficult to implement given our vast service area.
State-Local Emergency Preparedness Survey  
*Target Audience: State or County Health Department, State or County Emergency Management, Healthcare Coalition, Hospital, Healthcare Center, Emergency Medical Services, etc.*

- Emergency Preparedness Program Funding
- Emergency Preparedness Planning
- Statewide Exercise
- Multijurisdictional Coordination
- Public Health Emergency Preparedness and Hospital Preparedness Program Priorities

| Number of Questions | 44 |

Tribal Emergency Preparedness Survey  
*Target Audience: Tribal Health Department, Tribal Emergency Management, Tribal Executive Committee, Tribal Liaison, Tribal Coalition, Tribal Health Board, etc.*

- Emergency Preparedness Program Funding
- Emergency Preparedness Planning
- Assessment of Emergency Preparedness Needs
- Multijurisdictional Coordination
- Public Health Emergency Preparedness and Hospital Preparedness Program Priorities

| Number of Questions | 58 |

University & College Partners Survey  
*Target Audience: University, Community College, School District, Tribal College, etc.*

- Assessment of Services

| Number of Questions | 23 |

Public Health Emergency Preparedness Partners Survey  
*Target Audience: Indian Health Service, Bureau of Indian Affairs, Fire Service, Law Enforcement, etc.*

- Multijurisdictional Coordination
- Public Health Emergency Preparedness Needs

| Number of Questions | 25 |

Table 1 – Target Audience and Question Topics for the Four Implemented Needs Assessment Surveys

Survey Design
As noted, the online needs assessment survey questions were developed to better understand the needs, gaps, and challenges preparedness systems partners face in their jurisdictions. The needs assessment began with basic demographic and employment affiliation questions to ensure each respondent was directed to the appropriate survey. In aligning with the two distinct aims of the needs assessment, question groupings were created to understand the gaps in multijurisdictional coordination as well as the gaps and needs associated with preparedness planning. In regards to the former, a group of questions were created to understand the perception of existing multijurisdictional coordination and collaboration among tribal and state/local preparedness partners. In an effort to assess the
preparedness needs and gaps among partners, question sets focusing on emergency preparedness program funding, emergency preparedness needs and planning, statewide exercises, and PHEP and HPP priorities were also created. The variability of questions would allow the MWPERLC team to identify priority PHEP and HPP capabilities and solicit input from respondents which would provide context to the current level of planning efforts and funding streams supporting preparedness activities.

The 15 Public Health Emergency Preparedness (PHEP) capabilities developed by the Centers for Disease Control and Prevention (CDC), and the 8 Hospital Preparedness Program (HPP) capabilities developed by the U.S. Department of Health and Human Services’ (DHHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) formed the basis of the questions used to discern gaps in effective preparedness efforts and identify specific preparedness needs. The rationale for using the PHEP and HPP capabilities to develop the relevant questions was as follows:

1) The PHEP and HPP capabilities are widely accepted as the standard for effective preparedness and response;
2) A majority of preparedness professionals are familiar with the PHEP and HPP capabilities;
3) The PHEP and HPP capabilities provide benchmarks to test levels of readiness; and
4) The capabilities are evidence-based.

The needs assessment included both open-ended and closed-ended questions. While closed-ended questions allowed user to provide specific feedback on priorities and needs associated with PHEP and HPP capabilities, open-ended questions allowed users to provide rationale for specific answers, elaborate with additional information, and provide a context for responses. In this way, the integration of qualitative question types added value to the information provided and enabled the MWPERLC team to conduct in-depth analysis.

A series of skip logic questions were integrated as part of the survey mechanics. Skip and display logic allowed the survey to be tailored to each respondent, enabling users to skip questions that were irrelevant to them based on their answer to corresponding questions.

Survey Dissemination
The needs assessment was created using an online, cloud based platform known as Qualtrics. Widely used for implementing surveys, conducting evaluations, and administering course placement exams, the MWPERLC obtained access to this software through the University of Arizona’s site license. Qualtrics is an ideal choice for administering online surveys due to the relative ease with which it allows users to collect data online and analyze it. The needs assessment was distributed electronically to members of the MWPERLC Advisory Board (MAB); MAB constituents; and the MWPERLC listserv. These groups consisted of representatives which included:

- Tribal public health emergency preparedness officials;
- Tribal health departments;
- State tribal liaisons within the MWPERLC service area;
• State-local government partners;
• Federal agencies that work with tribal communities (e.g., Indian Health Service, Bureau of Indian Affairs);
• Preparedness officials at the state and county level;
• Regional health care coalitions;
• Emergency management officials within the MWPERLC service area; and,
• Public Health professionals who receive information from the MWPERLC listserv (Law Enforcement Personnel, Emergency Medical Technicians, Paramedics, Hospitals, Community Health Centers, Emergency Management).

The MAB members were informed of the impending needs assessment via initial communications in formalizing the MWPERLC advisory board. In order to improve the response rate of the needs assessment, the MWPERLC connected with the MAB members via email and/or personal phone call to not only encourage participation in the survey but to ask them to forward the survey link to additional, relevant preparedness system partners (e.g., law enforcement, fire and/or emergency medical personnel, etc).

In addition, a formal email, providing the rationale and context of the survey was sent to the individual email addresses of the MAB and MWPERLC listserv. This email provided a brief explanation of the needs assessment, its purpose and a Qualtrics-generated link to access the needs assessment.

The needs assessment was active through Qualtrics from February 22, 2016 to March 3, 2016. Initial analysis showed there was not enough preliminary data collected to adequately determine trends and themes, so the survey was released a second time from March 3, 2016 to March 16, 2016.

The needs assessment data was stored on password protected secure MWPERLC computers. In addition, needs assessment responses were kept confidential and de-identified through randomly generated Qualtrics ID numbers.

Data Analysis
The needs assessment data was first cleaned and organized in preparation for analysis. This step involved downloading the raw data from Qualtrics and importing it into an Excel spreadsheet, verifying the data for accuracy, and developing a database structure that enabled analysis. Data analysis was conducted using both Qualtrics analytics and Microsoft Excel. The analytics performed in Qualtrics were used to obtain simple measures, including counts and completion rates, while Excel was used to analyze the data for trends and to develop graphical representations. Quantitative data analysis was used to summarize and identify trends in responses to multiple choice, ranking, and categorical questions. Qualitative data, on the other hand, was analyzed using a thematic approach where the responses to the open-ended questions were analyzed for commonalities and themes, which could then be aggregated into topic areas. Finally, needs assessment findings were further validated (detailed further in Section 4) as an indicator of how well our findings align with other standards and measures of emergency preparedness needs and gaps.
Quantitative Data Analysis
To preserve anonymity of the respondents, the quantitative data was aggregated in Excel for analysis. The raw data was sorted by survey and question number. The major purpose of this data analysis was to find general trends to determine the following information:

- Highest PHEP and HPP needs for training, planning, exercise support, and technical assistance;
- Gaps in readiness; and,
- Levels of collaboration with systems partners.

In addition, descriptive statistics were calculated to summarize the responses to the needs assessment and describe the basic characteristics of the data. Descriptive statistics including sample size, mean, median, mode, averages, proportions, and total counts for each survey question were calculated. The characteristics (e.g., mean, total count) of each questions’ distribution were also depicted in tabular or graphical format including bar graphs and box plots. These statistics further allowed the MWPERLC team to conduct a comparative analysis of the responses between respondents who completed the Tribal and the State-Local surveys to identify common trends. The results of the comparative analysis are discussed in Section 2 of this report.

Qualitative Data Analysis
In addition to the standard rating and/or prioritization of quantitative questions, respondents were also asked to elaborate on their responses by providing additional input via open-ended questions. The free-range responses were an integral part of the assessment as they allowed respondents to provide additional information, context and/or clarification in response to specific questions. These qualitative responses were separated from the multiple-choice questions for further, in-depth analysis. For these questions, a thematic content analysis was conducted, allowing the MWPERLC team to identify overarching themes and trends in the responses. The following steps were used to complete the thematic content analysis on all text-based responses to open-ended questions:

1) Text responses were sorted into simple categories that were representative of the central theme in each response;
2) Categories were subsequently added as needed to ensure that all central themes occurring in the responses were identified;
3) All responses were then mapped to relevant categories and the frequency of each category was calculated; and,
4) Results were aggregated and summarized into tables that identified the top 3 to 4 themes.

This process was replicated on all questions that required the responder to provide textual input for a survey question. In general, qualitative analysis was required for questions inquiring about barriers to effective collaboration, identifying top PHEP/HPP capabilities, and identifying needs within PHEP/HPP specific areas.
Needs Assessment Validation
In addition to the qualitative and quantitative data analysis, the MWPERLC decided to include a three-pronged approach to validate the findings of the needs assessment. This was accomplished by using Root Cause Analysis to identify barriers in collaboration; reviewing Capability Planning Guides from service area states to identify specific gaps in capabilities; and a comparison of the awardees’ fact sheets in the 2016 National Snapshot of Public Health Preparedness to merge trends. These validation methods are further detailed in Section 4 of this report.

Findings of the Needs Assessment

Overarching Results
Data was collected from February 22, 2016 to March 16, 2016 for a total of 21 days. A total of 66 respondents completed the needs assessment. The needs assessment generated 41 respondents from state-local partners, 15 from tribal partners, 6 from academic partners, and 4 from general partners.

The majority of responses came from the state-local and tribal needs assessments. The University Partners and Other Preparedness Partners needs assessment both had a low response rate. As a result, this report only includes findings from the tribal and state-local needs assessments.

A breakdown of the total number of responses by state showed Arizona having the highest percentage of responses; 55% representing state-local respondents and 57% for tribal respondents. The remaining percentage breakdown by state was 20% response rate for Utah; 20% response rate for Colorado; and 14% for New Mexico. Given the low response rate by state, the MWPERLC has aggregated the data to maintain anonymity of the needs assessment respondents.

The findings of the needs are organized into four sections. Section 1 will provide a summary and discussion of the key questions that were overlapping in both the State-Local Emergency Preparedness Survey and the Tribal Emergency Preparedness Survey. Sections 2 and 3 will subsequently provide a brief analysis and discussion of the findings from both of these surveys separately. Finally, Section 4 will provide the results of the needs assessment validation conducted post data analysis.
Section 1: State-Local and Tribal Assessment Commonalities

The State-Local Preparedness Partner needs assessment and Tribal Preparedness Partner needs assessment were targeted at a specific audience: preparedness workforce (e.g., PHEP coordinators) at the tribal, state, and local levels. As a result, both assessments had multiple overlapping questions that allowed for direct comparison of needs and gaps between the two identified groups. This section presents the results to the questions common to both tribal and state-local respondents. Additional, in-depth analysis of each group surveyed will be presented in subsequent sections.

Respondents’ Level of Experience

Respondents were asked to provide the number of years they have been in their current position, within their agency, and in their respective field. As illustrated in Figure 2, respondents, on average, have relatively the same amount of experience at nearly every level between tribal and state-local respondents. Based on the respondents’ data, on average, individuals have served in their present position and in their agency for a relatively long period of time indicating considerable experience and knowledge of their agency’s planning and response efforts for public health emergencies. However, averages alone do not sufficiently explain this particular data: of specific significance is the range of values for each category of experience. As Figure 2 illustrates, the range of time in their current position, agency, or field varies from less than one year to 20-30 years. This indicates that the varied experiences of our respondents may further influence their answers to subsequent questions. An overall generalization may be that respondents with a limited number of years, or experience, in their current position and/or agency may be limited in their capacity to provide adequate feedback.

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Figure 2- Range and Average Years of Experience of Tribal and State-Local Respondents
Funding
Since funding generally drives the commitment agencies devote to preparedness efforts, respondents were asked to identify their funding sources. According to the Centers for Disease Control and Prevention (CDC), most states receive a substantial amount of both their PHEP and HPP funding through cooperative agreements from the CDC. For Fiscal Year 2015, the CDC appropriated a total of $840,250,000 nationally for public health and hospital preparedness program efforts (CDC, 2015, see Appendix C for full citation). Figure 3 illustrates the sources of funding for the MWPERLC service area partners who completed the needs assessment: The PHEP Program accounts for the largest percentage of funding for both Tribal as well as State-Local partners within our service area. HPP funds account for the second largest percentage of support for both groups, although only a small percentage of tribal respondents reported receiving HPP funding.

Possible reasons for these findings include the relative bias in the types of personnel and agencies responding to the needs assessment. As mentioned earlier, there was a focused effort to obtain feedback from PHEP and HPP grantees as these are two of the largest emergency preparedness funding streams. This seems to have resulted in an underrepresentation of partners from Emergency Management and Homeland Security among the survey responses thereby introducing this ‘bias’ of results in favor of the PHEP and HPP communities.

Planning
Planning is an essential part of the preparedness cycle. The questions surrounding planning sought to use the existence of an agency All-Hazards Plan (AHP) and Multi-Year Training and Exercise Plan (MYTEP) as indicators of an agency’s preparedness level. Additional questions delved deeper into the individual’s familiarity with their agency’s plans and how often these plans were updated. The information obtained from these questions were useful in gaining an overall understanding of the plan development and revision process in place among responding agencies.
All-Hazards Plan

Based on the survey results, it appears that a majority of tribal, state, and local agencies have an existing All-Hazards Plan in place (Figure 4). A subset of individuals did not report their agency having an AHP in place or were unsure of their agencies’ AHP status. As this question is based on perception and on an individual’s knowledge and awareness of agency wide plans, these findings may be related to the length of time an individual has worked in their agency and in what capacity. As noted, some individuals were relatively new to their current position and may not be as aware of the existence of plans.

Respondents who reported their agency had an All-Hazards Plan were asked how familiar they were with the plan. Figure 5 shows a majority of respondents said they were very familiar with the plan, suggesting that they have a general understanding of how their respective agency would operate during an emergency situation.

Finally, respondents were asked how often their agency’s All-Hazards Plan is updated. Responses were split between annual updates to the plan and updates every 2-3 years which suggests agencies are actively engaged in the plan revision process (Figure 6). Agency plans and procedures are living documents that need to be routinely updated. Even though there is disagreement on how often agency AHPs should be revised, respondent feedback indicates that agencies acknowledge the importance of this periodic evaluation.
**Multi-Year Training and Exercise Plan (MYTEP)**

A key aspect of the emergency preparedness cycle is routine engagement to train and exercise developed plans and procedures. Therefore, the MWPERLC integrated two separate questions in relation to MYTEP development in the tribal and state-local surveys. In the Tribal survey, the MWPERLC asked responders if “you or your tribal agency participated in the most recent state Multi-Year Training and Exercise Plan Development?” In the State-Local survey, the respondents were asked if “your state or local agency develops a Multi-Year Training and Exercise Plan?”

![Figure 7 - Tribal Participation in Most Recent State MYTEP Development Process](image)

The rationale for the difference in the question lies in its underlying purpose: For the tribal respondents, the MWPERLC intended to use this question as an indicator of collaboration between tribal and state agencies, concluding that if a high number of tribal participants confirmed their participating in their respective State’s MYTEP development then there is sufficient collaboration between both groups. On the other hand, for the state-local respondents, the question was aimed at determining if individual agencies developed their own MYTEPs.

Figure 7 illustrates that a majority of tribal respondents indicated they had participated in the development of their respective state’s MYTEP. There were, however, a larger percentage of tribal respondents who reported they were not involved, or unsure, of their involvement in producing a MYTEP. This may indicate that some tribes are not engaging in MYTEP development. Although the survey responses do not explain the reasons for this discrepancy, it can be postulated that smaller agencies may not create a formalized plan despite being engaged in training and exercise activities. Equally plausible is the assertion that collaboration between state, local, and tribal agencies could be improved to better engage tribal entities in the MYTEP development process.

Conversely, as Figure 8 illustrates, over 90% of state-local respondents stated that their respective agency has developed a MYTEP, further indicating that an increased number of agencies engage in the development of long-term training and exercise plans.

![Figure 8 - State and Local Agency Development of a MYTEP](image)
Statewide Exercise Participation
All respondents were asked whether they planned to participate in an upcoming statewide exercise. The MWPERLC integrated this question into the needs assessment for the purposes of identifying a statewide exercise as part of the MWPERLC evaluation strategy to build an effective tribal and multijurisdictional response network. Exercises play a vital role and provide stakeholders with an opportunity to test and validate plans and capabilities, and identify both gaps and areas for improvement. In addition, PHEP and HPP sub-awardees are required to jointly participate with emergency management in state sponsored table-top, functional, and full-scale exercises. Therefore, by asking this question, the MWPERLC hoped to not only understand the level of tribal, and state-local participation in a future statewide exercise but also identify future opportunities to evaluate collaboration between tribal and multijurisdictional response agencies to enhance public health emergency preparedness capabilities.

![Statewide Exercise Participation](image)

Although a majority of respondents indicated they were participating in a statewide exercise, a small number of respondents reported they were not participating or unsure if their agency was participating (Figure 9). Respondents who reported they were not participating were asked to explain why. Tribal respondents indicated they were either not aware that a statewide exercise was occurring, or if they knew, they were not invited. Some state-local respondents also indicated that they were unaware of an upcoming state-wide exercise or remarked that no state-wide exercise had been scheduled in the upcoming year. Feedback provided indicates a potential need to improve the exchange of information, communications, and collaboration between tribal, state, and local preparedness partners in regards to statewide exercise planning. Finally, all responders who stated that they were planning to participate in a state-wide exercise were asked to provide further details (e.g., date, exercise type, focus area) about the upcoming exercise. The MWPERLC intends to use this knowledge to reach out to our service area state partners to identify opportunities where the effectiveness of tribal and multi-jurisdictional response may be assessed and to offer training and technical assistance as needed.

Collaboration
To gain a better understanding of the levels of cooperation and coordination between tribal preparedness professionals and their corresponding state-local colleagues (and vice versa), a series of questions using an open-ended format were included. As Figures 10 and 11 show, a majority of tribal, state, and local respondents rated their collaboration with corresponding colleagues as being relatively strong.
However, despite a perceived high level of collaboration among all preparedness partners, there is still room for improvement. This was verified when respondents who indicated lower levels of collaboration were offered an opportunity to explain their reasoning. The responses to those open-ended questions provide insight into factors that may contribute to a less than optimal environment for collaboration. They also provide the opportunity to identify more effective ways to bridge gaps between regional preparedness partners.

**Opportunities for Collaboration at the State Level**

To better understand the levels of collaboration between tribal preparedness professionals and their state counterparts, respondents were asked to rate their opportunities for collaboration with each other. The data represented below is based on the responses from two separate questions in the tribal survey where they were asked to rate collaboration with state partners and with county/local partners. Concurrently, respondents to the state-local survey were asked the same question about their collaboration with tribal partners. In presenting the response to this question from the respondents to the state-local survey, the MWPERLC team separated out the perceptions of the state respondents from the local respondents.

Figure 10 shows a majority of tribal and state respondents reported there were sufficient opportunities for collaboration with each other. A key point to consider is the difference in interpretation between ‘sufficient’ and ‘just right’. While the terms may seem similar, they each could represent different perceptions of collaboration. While ‘sufficient’ suggests an adequate level of interaction, it may also suggest a desire for increased cooperation. Alternatively, the ‘just right’ selection might imply that there are adequate opportunities for high levels of collaboration between state and tribal agencies.

If tribal respondents indicated there were either sufficient or just the right amount of opportunities for interaction with state counterparts, they were asked to explain the rationale for their selection. Three main themes emerged from the analysis of the resulting responses:

1) Respondents felt that adequate opportunities for collaboration are provided;
2) Respondents felt that communication was strong among partners; and,
3) Respondents believed that there were plenty of opportunities to participate in joint preparedness efforts.
Tribal respondents who indicated there were insufficient opportunities for interactions with state partners were also asked to explain why they felt that way. A key theme that resonated in the resulting responses centered on the need for stronger communication between all partners. Although the responses did not elaborate on the context of the communication improvements needed, it can be postulated from both MWPERLC’s experience and dialogue with our subject matter experts that factors which inhibit successful collaboration include frequent staff turnover; restricted travel budgets for in-person meetings; the isolated geographic location of many tribes; and heavy reliance by state (and local) agency personnel on email communication.

Next, Tribal and county/local respondents were asked to rate opportunities for collaboration with each other. Figure 11 shows that a majority of tribal and local respondents indicated there are sufficient opportunities for collaboration between their respective agencies. However, it seems a significant amount (26%) of local respondents indicated there were insufficient opportunities for collaboration, indicating a need for improvement in this area. (Note: the perceptions of the tribal respondents were calculated to be exactly the same for state-local levels of collaboration. Hence, the orange bars, representing perceptions of tribal survey respondents are exactly the same as in Figure 10.)

The tribal respondents were asked to indicate why they felt there were sufficient or just the right amount of opportunities for collaboration with their county and/or local counterparts. Explanations included:

1) Respondents felt that there was strong communication with their county/local counterparts;
2) Respondents felt that personal relationships helped to facilitate information sharing among the different agencies; and,
3) Respondents felt that interagency relationships were strong.

Respondents who indicated that there were insufficient opportunities for collaboration were asked to explain why. Tribal respondents highlighted two key reasons:

1) Inter-jurisdictional relationships need to be strengthened; and,
2) Infrastructure could be improved.

In parallel, when asked to elaborate on why they felt there were insufficient opportunities for interactions with tribal partners, respondents to the state-local survey provided the following three overarching reasons:

1) Tribal infrastructure could be stronger;
2) There is a lack of staff to facilitate adequate communication; and,
3) Location of tribal partners is a challenge.

In comparing the reasons for insufficient opportunities for interaction with this cohort, communication is the key theme that emerged in a majority of the responses. While tribal respondents felt communication was lacking or insufficient, local respondents felt a lack of staff creates a barrier to stable communication. The rural/urban dichotomy was also brought up by numerous respondents, both state and local, as an example of one of the many challenges they face in maintaining communication and collaboration with their tribal counterparts. Furthermore, tribal respondents provided specific reasons for successful communication among county or local partners, indicating that established personal and interagency relationships are key characteristics to successful collaboration between tribal and local agencies. Overall, responses also indicate the presence of multiple barriers that impede successful communication and collaboration such as frequent staff turnover, lack of planning, funding, and time for travel to remote tribal locations, and over reliance on electronic messaging. It is therefore essential for future strategies to focus on addressing communication barriers and improve understanding of the needs and challenges faced by both communities to maintain a collaborative relationship.

Public Health Emergency Preparedness Priorities
To determine how the MWPERLC can best target training or technical assistance needs to our preparedness partners, all respondents were asked to rank their top three priorities for public health emergency preparedness. As previously mentioned, respondents selected priorities from the list of PHEP Capabilities. PHEP funding grantees who receive funds from the CDC focus and align their preparedness activities to the 15 PHEP capabilities, making this list a useful tool to identify relevant priorities for different jurisdictions. Therefore, by asking respondents to select their top three PHEP priorities, the MWPERLC was able to gage our partners’ current and future preparedness needs. Figure 12 depicts the PHEP priorities for tribal, state, and local respondents.

Tribal respondents identified three PHEP capabilities as being high priority:

1) Community Preparedness;
2) Emergency Operations Coordination; and,
3) Emergency Public Information and Warning.

*The priorities are listed by the order they were ranked.

State-local respondents identified four PHEP capabilities as being high priority:

1) Emergency Operations Coordination;
2) Community Recovery;
3) Information Sharing; and,
4) Medical Countermeasure Dispensing.

*The priorities are listed by the order they were ranked.
**Four capabilities are listed because the same number of state-local respondents reported Community Recovery and Information Sharing as a priority.
At least three of the abovementioned priorities (Community Preparedness, Emergency Operations Coordination, and Information Sharing) are among the five most frequently cited capabilities for which PHEP grantees received funds in 2014 (Centers for Disease Control and Prevention, 2016, see Appendix C for full citation). Specifically, Emergency Operations Coordination and Information Sharing are two of the integral capabilities that lay the foundation of an agency’s overall response to a public health emergency. Not surprisingly, these two capabilities are continuously cited as a priority and key areas for improvement (Centers for Disease Control and Prevention, 2016, see Appendix C for full citation).

**Hospital Preparedness Program Priorities**
Similar to the PHEP capabilities, all agencies that receive Hospital Preparedness Funding (HPP) align activities and engage in preparedness efforts with the Healthcare System Preparedness Capabilities. All respondents were therefore asked to list their HPP priorities for hospital preparedness. It should be noted overall response rates to this question were significantly lower in comparison to the PHEP.
priorities. As noted, this is likely attributed to the fact that many respondents, especially tribal agencies, do not receive HPP funds. Figure 13 shows the HPP priorities for tribal, state, and local respondents.

![Hospital Preparedness Program Priorities by Capability](image)

**Figure 13 - Hospital Preparedness Program Priorities by Capability**

Tribal respondents identified four HPP capabilities as being high priority:

1) Information Sharing;
2) Emergency Operations Coordination;
3) Healthcare System Preparedness;
4) Medical Surge.

*The priorities are listed by the order they were ranked.

**Four capabilities are shown because the same number of tribal respondents reported Healthcare Systems Preparedness and Medical Surge as a priority.

State-local respondents also identified four HPP capabilities as high priority:

1) Emergency Operations Coordination;
2) Medical Surge;
3) Information Sharing;
4) Healthcare System Preparedness.

*The priorities are listed by the order they were ranked.

**Four capabilities are shown because the same number of state-local respondents reported Emergency Operations Coordination and Medical Surge as a priority.
As with the PHEP capabilities, there is considerable overlap between the priorities identified by Tribal and State-Local respondents indicating a shared need to enhance local capacity and capability in these areas. Sections 2 and 3 detail these findings further and provide additional information pertaining to the nature of the PHEP and HPP capability needs.
Section 2: Tribal Emergency Preparedness Survey Results

Section 2 of this report details the findings of respondents who completed the Tribal Emergency Preparedness Survey. The target audience for this survey included representatives of tribal agencies such as tribal health departments, tribal emergency management, executive committees, tribal liaisons, coalitions and tribal health boards. The summarized results include an analysis of 14 survey respondents’ who completed the survey.

Public Health Emergency Preparedness (PHEP) Priorities

Tribal respondents were asked if they have ever used the PHEP capabilities to:

- Develop plans;
- Develop and evaluate exercises; and/or,
- Identify specific training needs.

These questions were asked to determine how familiar tribal partners were with the PHEP capabilities and how they utilize the capabilities to inform preparedness activities.

Figure 14 shows that over half of all tribal respondents use the PHEP capabilities to develop plans, develop and evaluate exercises, or to identify specific training needs.

Respondents who indicated they used the PHEP capabilities to develop plans were also asked to identify the types of plans developed. The plans developed using the PHEP capabilities include:

- Multi-year Training and Exercise Plan (69%);
- All-Hazards Plan (54%);
- Continuity of Operations Plan (30%);
- Other (23%) (e.g., Pandemic Flu, Medical Countermeasures, Communication Plan); and,
- Not sure (15%).

These findings are indicative of the relative familiarity individuals and agencies seem to have in the use of PHEP capabilities to inform a wide array of preparedness activities. Although not entirely surprising, since approximately 73% of tribal respondents stated they receive PHEP funding to facilitate their agencies’ preparedness efforts, these findings affirm the utility of the PHEP capabilities to lay the foundation for all activities within the emergency management cycle.

As mentioned in Section 1, all respondents were asked to identify the top three PHEP capabilities with the highest need in their jurisdiction. The top three PHEP capabilities in order of priority were
Community Preparedness, Emergency Operations Coordination, and Emergency Public Information and Warning (Figure 12). Based on their ranking, respondents were further asked to characterize their specific needs categorized into training, technical assistance, exercise support, planning or other for each of their chosen priority capabilities. Figure 15 shows the top three capabilities categorized by the different needs. (Please see Appendix A for a graphical representation of the rankings for all capability associated needs with respect to training, technical assistance, exercise support, or planning.)

![Figure 15- Top Tribal Public Health Emergency Preparedness Needs](image)

The quantitative data (i.e., the three priority areas identified by respondents) was aligned to the qualitative responses provided for each selected capability. A thematic analysis was employed to sort the responses into the five specified category needs listed in Figure 16. A separate “Other” category was added to capture additional needs.
A general review of the qualitative data indicates variable needs by capability. Nonetheless, there are notably consistent themes among tribal respondents. For example, training both community members and volunteers on community preparedness seems to be equally relevant as is the need to engage with, and train, staff on emergency operations management. In terms of planning and technical assistance, the needs are generally centered upon additional information to enhance existing policies, procedures, and protocols, and on the identification of best practices and models to integrate into current planning efforts.

**Hospital Preparedness Program Priorities (HPP)**

In addition to assessing partner needs using the PHEP capabilities, the MWPERLC asked respondents to provide similar information on gaps and needs associated with the Healthcare Preparedness Capabilities. Like the PHEP Capabilities, the HPP capabilities are another framework and planning model used by healthcare systems, including healthcare coalitions and organizations to determine preparedness priorities. Therefore, tribal respondents were asked if they have ever used the HPP capabilities to:

- Develop plans;
- Develop and evaluate exercises; and/or,
- Identify specific training needs.

The questions referring to the HPP capabilities were asked to determine how familiar tribal partners were with using the HPP capabilities. Figure 17 illustrates a majority of respondents did not utilize the HPP capabilities to develop plans, create and evaluate exercises, or identify training needs. Among the
relative few respondents who confirmed the use of HPP capabilities for planning efforts used them for the development of All-Hazards Plans, Continuity of Operations Plans, and the Multi-Year Training and Exercise Plan. Although the rationale for not using the HPP capabilities was not explored in our survey, it can be postulated that a key barrier to their use lies in their limited relevance to tribal public health agencies. The HPP Capabilities, as mentioned earlier, are primarily targeted for the healthcare systems community (i.e., hospitals, clinics). The respondents to this survey were individuals who worked in a public health system capacity and therefore may have had limited experience in integrating and using the HPP capabilities for emergency planning efforts. As a result, this highlights a limitation of this needs assessment in that the tribal agencies such as IHS hospitals and tribally owned 638 clinics are underrepresented in our data. In order to understand the gaps, challenges, and needs associated with the HPP capabilities for tribal partners, it would be imperative for further needs assessments to engage with these partners and ensure their input is received.

As mentioned in Section 1, all respondents were asked to identify the top three HPP capabilities with the highest need in their jurisdiction (Figure 13). However, there was a tie in the selection of priorities. As a result, the MWPERLC conducted subsequent analysis and presented the results on the top four priorities selected by survey respondents. The top four HPP capabilities in order of priority were Information Sharing, Emergency Operations Coordination, Healthcare System Preparedness, and Medical Surge. Based on their ranking, respondents were further asked to characterize their specific needs categorized into training, technical assistance, exercise support, planning or other for each of their chosen priority capabilities.

Figure 18 shows the top three capabilities categorized by their different needs. (Please see Appendix A for a graphical representation of the rankings for all capability associated needs with respect to training, technical assistance, exercise support, and planning.) Due to the minimal number of responses, it was difficult to determine trends in the responses. As a result, these results are not presented in a thematic table as were the PHEP results in order to maintain the anonymity of survey respondents.
Assessment of Emergency Preparedness Needs

In addition to identifying preparedness gaps and needs associated with the PHEP and HPP Capabilities, the MWPERLC also asked respondents to identify, in general, their top three training, exercise, and technical assistance needs. The rationale for including this additional question was to provide our tribal partners with an opportunity to identify needs outside of PHEP and HPP capabilities. The MWPERLC recognizes our tribal partners engage in a variety of preparedness efforts through other funding streams such as the Tribal Homeland Security Grant Program and this was a way to capture that data.

Due to the qualitative nature of the questions, respondents were able to provide context and/or further detail their specific need(s). The word clouds in Figure 19 depict the wide array of responses obtained. Their responses were extensive and training topics ranged from Incident Command System and National Incident Management System to community mitigation planning and volunteer management. Exercise needs were heavily focused on mass care and shelter operations, points of dispensing, volunteer management, and compliance with the Homeland Security Exercise and Evaluation Program (HSEEP). Finally, technical assistance needs ranged from plan development, Incident Command System roles and responsibilities, and EOC coordination, to communications and public information. Although these
individual needs were not directly tied to capabilities, their alignment to specific PHEP capabilities is evident. These needs seem to align very closely with at least two of the PHEP capabilities identified earlier as priority areas by respondents: Emergency Operations Coordination and Emergency Public Information and Warning.
Section 3: State-Local Partners Needs Assessment

Section 3 of this report details the findings of respondents’ who completed the State-Local Emergency Preparedness Survey. The target audience for this survey included representatives of agencies such as state or county health departments, emergency management, healthcare coalitions, hospitals, healthcare centers, and Emergency Medical Services. The summarized results include analysis of 37 survey respondents who completed the survey.

Figure 20 provides a brief representation of the range of agencies represented in the survey responses. As illustrated, while the responses are heavily biased towards local health departments, there is some representation, albeit few, from other state-local preparedness system partners. Given the distribution, it must be noted that the public health perspective is more represented in answers to the subsequent questions regarding collaboration and capabilities based priorities.

Collaboration with Systems Partners

To better understand the level of collaboration the state-local respondents had with their system partners, state-local respondents were asked to indicate their relationship with these groups. The systems partners were grouped into the following categories:

1. Health Departments and Emergency Management Agencies;
2. Clinical Care and Services;
3. Public Safety and Medical Services; and,
4. Community Stakeholders.

Figures 21-24 show the state-local respondents’ levels of collaboration with their system partners. Given that the majority of respondents to the state-local needs assessment were state-local health departments, this level of collaboration can be expected. However, it must be noted that the data is biased towards the sentiments of local health departments and therefore may not truly echo how well the other partner agencies feel about the collaborative relationships that exist.
Figure 21- State-Local Collaboration with Health Departments and Emergency Management Agencies

Figure 22- State-Local Collaboration with Clinical Care and Services
**State-Local Collaboration with Public Safety and Medical Services**

- **Correctional Facilities**
  - Collaborates Well: 7%
  - Collaborates Somewhat: 33%
  - Collaboration Can be Improved: 33%
  - Does not Collaborate: 15%
  - Not Applicable: 12%

- **Law Enforcement**
  - Collaborates Well: 35%
  - Collaborates Somewhat: 32%
  - Collaboration Can be Improved: 25%
  - Does not Collaborate: 3%
  - Not Applicable: 5%

- **Emergency Medical Services**
  - Collaborates Well: 58%
  - Collaborates Somewhat: 22%
  - Collaboration Can be Improved: 20%

- **Fire Service**
  - Collaborates Well: 47%
  - Collaborates Somewhat: 28%
  - Collaboration Can be Improved: 18%
  - Does not Collaborate: 7%

**Figure 23- State-Local Collaboration with Public Safety and Medical Services**

**State-Local Collaboration with Community Partners**

- **Communities**
  - Collaborates Well: 25%
  - Collaborates Somewhat: 38%
  - Collaboration Can be Improved: 32%
  - Does not Collaborate: 5%

- **Media**
  - Collaborates Well: 48%
  - Collaborates Somewhat: 30%
  - Collaboration Can be Improved: 17%
  - Does not Collaborate: 5%

- **Academic Institutions**
  - Collaborates Well: 25%
  - Collaborates Somewhat: 45%
  - Collaboration Can be Improved: 23%
  - Does not Collaborate: 7%

- **Local Businesses**
  - Collaborates Well: 10%
  - Collaborates Somewhat: 38%
  - Collaboration Can be Improved: 46%
  - Does not Collaborate: 10%

- **Faith-Based or other Community-Based Organizations**
  - Collaborates Well: 20%
  - Collaborates Somewhat: 35%
  - Collaboration Can be Improved: 35%
  - Does not Collaborate: 5%

**Figure 24- State-Local Collaboration with Community Partners**
Overall respondents felt they collaborate well with health departments and emergency management agencies as well as most clinical care organizations. In particular, approximately 30% of respondents to the state-local survey felt that collaboration with tribal health departments can be improved. These findings echo the results provided in Section 1 where state-local respondents felt collaboration with tribal partners could be improved. In assessing how well their agency collaborates with clinical care services partners, respondents overwhelmingly felt that collaboration with laboratories, behavioral health organizations, and healthcare clinics can be improved. On the other hand, respondents seemed to have a strong collaborative relationship with hospitals with more than 80% of respondents selecting either “collaborates well” or “collaborates somewhat”. Although further research is needed to determine the root cause of the reported need for enhanced collaboration between public health and healthcare clinics, behavioral health organizations, and laboratories, one possible reason may stem from the relative need for better integration of medical and public health systems to advance and improve emergency preparedness.

In rating the collaboration with public safety and emergency medical services, state-local respondents felt they collaborated particularly well with fire services, law enforcement, and emergency medical services partners. On the other hand, only 40% of respondents felt they either “collaborated well” or “collaborated somewhat” with correctional facilities. In addition, over 30% of respondents felt collaboration with correctional facilities could be improved, indicating the need for further integration of representatives from correctional facilities into emergency planning efforts. Finally, respondents generally felt that overall collaboration with community stakeholders could be improved. As Figure 23 illustrates, unlike the trends depicting relationship with other systems partners, state-local respondents did not feel strongly about their collaboration with this group of stakeholders indicating that additional work remains to be done to integrate local community stakeholders in preparedness activities.

Public Health Emergency Preparedness Priorities (PHEP)
As mentioned in Section 1, all respondents including state-local respondents were asked to identify the top three PHEP capabilities for their jurisdiction. However, there was a tie in the selection of priorities. As a result, the MWPERLC conducted subsequent analysis and presented the results on the top four priorities selected by survey respondents. The top four PHEP capabilities in order of priority were determined to be Community Recovery, Emergency Operations Coordination, Information Sharing, and Medical Countermeasures Dispensing (Figure 12). Based on their ranking, respondents were further asked to characterize their specific needs categorized into training, technical assistance, exercise support, planning or other for each of their chosen priority capabilities.

Figure 25 shows the top three capabilities categorized by the different needs. (Please see Appendix A for a graphical representation of the rankings for all capability associated needs with respect to training, technical assistance, exercise support, or planning.) As the figure illustrates, there are a wide range of needs for each capability with most capabilities requiring at least some additional planning associated support, training, and exercise support.
Figure 25- Top State-Local Public Health Emergency Preparedness Needs

The quantitative data (i.e., the four priority areas identified by respondents) was aligned to the qualitative responses provided for each selected capability. A thematic analysis was employed to sort the responses into the five specified category needs listed in Figure 26. A separate “Other” category was added to capture additional needs.
A general review of the qualitative data indicates variable needs by capability. Nonetheless, there are notable, consistent themes among state-local respondents. For example, a key need among this group of responders seems to be centered on trainings and technical assistance on the development of plans such as the community recovery plan, information sharing, and mass dispensing. In addition, the overall need is not just limited to training. Rather, there seems to be an equal need for additional exercises associated with these capabilities. In terms of technical assistance, a thorough review of the responses indicates a need for additional information to enhance existing policies, procedures, and protocols, and to identify best practices and models to integrate partners and build local capacity.

**Figure 26 – State-Local Specific Top Public Health Emergency Preparedness Capability Needs**

A general review of the qualitative data indicates variable needs by capability. Nonetheless, there are notable, consistent themes among state-local respondents. For example, a key need among this group of responders seems to be centered on trainings and technical assistance on the development of plans such as the community recovery plan, information sharing, and mass dispensing. In addition, the overall need is not just limited to training. Rather, there seems to be an equal need for additional exercises associated with these capabilities. In terms of technical assistance, a thorough review of the responses indicates a need for additional information to enhance existing policies, procedures, and protocols, and to identify best practices and models to integrate partners and build local capacity.

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**Table: EMERGENCY OPERATIONS COORDINATION**

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Training</th>
<th>Planning</th>
<th>Technical Assistance</th>
<th>Other</th>
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<td>Partner Building</td>
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**Table: COMMUNITY RECOVERY**

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<td>Training in the Capability of Community Recovery</td>
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**Table: MEDICAL COUNTERMEASURE DISPENSING**

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<td>Strategic National Stockpile</td>
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<td>Regional Strategic Stockpile</td>
<td>Volunteer Training</td>
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**Table: INFORMATION SHARING**

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<td>Assuring all Local Public Health Agencies have a 24/7 Process</td>
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<td>Completing Information Sharing Plans</td>
<td>Testing Information Sharing Ability</td>
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<td>Reestablishing Communication with Partners</td>
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<td>Developing Information Sharing Plan</td>
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Hospital Preparedness Program Priorities (HPP)
State-local respondents were asked to identify the top three HPP capabilities in their jurisdiction. However, there was a tie in the selection of priorities. As a result, the MWPERLC conducted subsequent analysis and presented the results of the top four priorities selected by survey respondents. The top four HPP capabilities in order of priority were Emergency Operations Coordination, Medical Surge, Information Sharing, and Healthcare System Preparedness (Figure 13). Based on their ranking, respondents were further asked to characterize their specific needs categorized into training, technical assistance, exercise support, planning or other for each of their chosen priority capabilities.

Figure 27 illustrates the top four capabilities categorized by the different needs. (Please see Appendix A for a graphical representation of the rankings for all capability associated needs with respect to training, technical assistance, exercise support, or planning.)

As the figure illustrates, there are a wide range of needs for each capability with most capabilities requiring at least additional planning associated support, training, and exercise support. The quantitative data (i.e., the four priority areas identified by respondents) was aligned to the qualitative responses provided for each selected capability. A thematic analysis was employed to sort the responses into the five specific category needs listed in Figure 28. A separate “Other” category was added to capture additional needs.
A general review of the qualitative data indicates variable needs by capability. An alignment of the trends observed in the range of capability associated needs, shows the state-local respondent needs are largely centered on training and exercise support. There seems to be a great demand for exercise support of both discussion-based and operations-based exercises to test plans and procedures. Another unique theme observed in the qualitative responses is the need for technical assistance for the development of plans and for shared trainings among healthcare systems partners including local health departments, hospitals, and healthcare coalitions. This sentiment is in agreement with earlier findings in which respondents felt that collaboration with healthcare clinics, behavioral health organizations, and laboratories could be improved. These responses, in combination with overall findings, indicate the need for better integration among state-local health departments as well as other healthcare system partners to develop plans and protocols and engage in collaborative exercises with a focus on delineating roles and responsibilities, information sharing, and inter-agency coordination.
### EMERGENCY OPERATIONS COORDINATION

<table>
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### MEDICAL SURGE

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<td>Testing Medical Surge Protocols</td>
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### INFORMATION SHARING

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<td>Training on Information Sharing Plans and Procedures</td>
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<td>Exercises to Solidify the Information Sharing Process</td>
<td>Training on Information Sharing Capability</td>
<td>Assistance Updating the Communication Plan</td>
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### HEALTHCARE SYSTEM PREPAREDNESS

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<td>Continual Information Sharing</td>
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Figure 28 - State-Local Specific Top Hospital Preparedness Program Capability Needs
Section 4: Needs Assessment Validation

As previously noted, the MWPERLC implemented a three-pronged approach to validate the findings of the needs assessment. These included the following ‘benchmarks’ for comparison:

- MWPERLC Advisory Board Meeting Root Cause Analysis;
- State Specific Capability Planning Guides; and,
- The 2016 CDC National Snapshot.

Root Cause Analysis

The first measure of validation targeting collaboration was the root cause analysis (RCA) map (Appendix B) produced by our Tribal Advisory Board members during the April 2016 MWPERLC Advisory Board Meeting. RCA is a robust evaluation methodology used in a variety of disciplines. RCA provides a structured approach to recognizing the real cause of a problem and identifying actions resulting in a permanent solution to that problem (Duffy, Moran & Riley, 2012, see Appendix C for full citation).

Before RCA can begin, a problem must be identified and defined (Coskun, Akande & Renger, 2012, see Appendix C for full citation). Given the goal of the MWPERLC project is to “Build an Effective Tribal and Multijurisdictional Response Effort”, the MWPERLC set out to explore underlying factors which may inhibit this goal. These included gaps in collaboration, communications, capacity and capability.

During the Advisory Board Meeting, the MWPERLC led board members in an RCA activity focusing on the barriers to collaboration and used the following problem statement to conduct this activity: “There is less than effective collaboration between all formal preparedness partners.”

At first glance, the problem statement may seem contradictory to the findings of the needs assessment, where 86% of all tribal respondents felt that current levels of collaboration were either “sufficient” or “just right”. However, based on the qualitative data responders provided, it seemed that even though there seems to be ample opportunities for collaboration with both state-local partners, there is still room for improvement by all partners.

The discussions that occurred during the development of the RCA map validated these findings. The MWPERLC Tribal Advisory Board Members (TAB) described challenges hampering their ability to enhance interaction and collaboration between tribes and states, as well as between tribes and county level preparedness partners. The key issues identified and discussed during the construction of the RCA map included:

- A lack of understanding of how tribal governments work by non-tribal partners;
- A lack of face-to-face personal interactions with partners; and,
- A lack of preparedness structure (i.e., no formal PHEP or Emergency Management programs) within the community

The combined needs assessment and RCA map illustrates opportunities to increase collaborative efforts by all preparedness partners. As such, the MWPERLC is currently in the process of developing tools and resources that can enhance collaborative efforts among all parties. In order to enhance collaboration among tribal and state-local preparedness partners, the MWPERLC is assembling a collection of strategies for working effectively with American Indian and Alaskan Native Communities. Similarly, the
Center is working diligently to identify mechanisms for our preparedness partners to share tools, best practices, and case studies for effective collaboration.

**Capability Planning Guides**
The second validation approach targeting capabilities was the review of Capability Planning Guides (CPGs) submitted by our service area state partners. The CPGs form the foundation of the PHEP and HPP cooperative agreements states enter into with the CDC and provide a quick snapshot of each state’s focus areas (by PHEP and HPP capability) for specific budget years. The CPGs allow each state agency to categorize PHEP and HPP capabilities and functions into one of six different priority levels (Very High Priority, High Priority, Medium Priority, Low Priority, Sustain, and No Recommendation) based on need.

Based on recommendations by some of our board members, the CPGs were identified as a potential source for validation as all states currently utilize the guides for strategizing, coordinating, and organizing jurisdiction specific preparedness efforts.

The MWPERLC team attempted to compare the overarching state level capability based priorities against the CPGs. The MWPERLC strategy for validation involved the comparison of the PHEP and HPP capability rankings (from the needs assessment) to the corresponding data in the CPG, thus providing a broader view of levels of readiness. However, there were several challenges inhibiting our ability to conduct the comparison.

First, at the time of publication of this report, the MWPERLC has received only two CPGs from partner states, limiting our ability to conduct a thorough validation among all service area states. The reduced number of CPGs was a fundamental constraint in that without CPGs from all our state partners we were unable to conduct a comparison of CPGs and needs assessment priorities for each state nor were we able to conduct a comparison of needs based on CPGs across all service area states.

Our second challenge surfaced upon review of each of the two CPGs we received: Both CPGs were organized in two distinct ways. State A submitted a collection of CPGs from various jurisdictions at both the local and state levels while State B submitted an aggregate CPG of all jurisdictions within the state. (In order to respect our partners’ willingness to share their resources with us and to maintain their anonymity, the MWPERLC will not disclose their identities.) Upon review of State A’s CPGs, the MWPERLC team realized although a comparison may have been possible, it would not have been relevant due to the limited number of responses obtained from that particular state to our needs assessment. Therefore, our third greatest limitation was the lack of substantial state level data through our needs assessment. Without adequate representation of preparedness partners for State A, the MWPERLC could not directly align and compare the priorities equally. The MWPERLC team attempted to match agencies for which we had local level CPGs from State A with agency representatives who completed the needs assessment. There was one match for which we had a CPG and needs assessment data. Upon comparison, however, all capabilities that were listed as priorities by the agency’s representatives who responded to the survey were listed as varying degrees of priority contingent upon the specific function. As discussed below, this underpinned another limitation in our ability to compare the planning guide data to the priorities selected in the needs assessment.
Our final challenge became further apparent upon review of State B’s CPG: the planning guides categorized priorities at the function level of each capability. This specificity resulted in the same PHEP capability appearing under numerous priority levels in the CPG depending on the perceived need associated with each function. While this specificity is an effective method for identifying needs and gaps, this level of detail was not required in the MWPERLC needs assessment, which only asked respondents to identify priorities at the capability level. Therefore, only a rough surface level assessment could be achieved with the data available. By way of example, Figure 29 provides the results of a preliminary evaluation of State B’s CPG vs. the priorities identified by responders in that state.

<table>
<thead>
<tr>
<th>State B Needs Assessment Priorities</th>
<th>State B High Priority Capabilities (CPG)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HPP:</strong></td>
<td><strong>HPP:</strong></td>
</tr>
<tr>
<td>Information Sharing</td>
<td>Healthcare System Preparedness</td>
</tr>
<tr>
<td>Emergency Operations Coordination</td>
<td>Medical Surge</td>
</tr>
<tr>
<td>Medical Surge</td>
<td></td>
</tr>
<tr>
<td><strong>PHEP:</strong></td>
<td><strong>PHEP:</strong></td>
</tr>
<tr>
<td>Emergency Operations Coordination</td>
<td>Non-Pharmaceutical Interventions</td>
</tr>
<tr>
<td>Community Recovery</td>
<td>Fatality Management</td>
</tr>
<tr>
<td>Information Sharing</td>
<td></td>
</tr>
<tr>
<td>Medical Surge</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 29 - Comparison of CPG Priorities with Needs Assessment Priorities*

It is evident the two sets of priorities do not completely align with each other. However, this cannot be used to imply there is substantial disagreement between the two sets of metrics. Rather, an assertion can be made the CPG is indicative of the PHEP and HPP level priorities identified at the state level while the needs assessment is a representation of individual state agencies’ needs and priorities. This fact reiterates the limited nature of validation of our findings against the CPGs due to the economy of scale in the data.

**CDC Snapshot**

While the data from the needs assessment was not able to be validated against the CPGs, it was validated against the 2016 National Snapshot of Public Health Preparedness [http://www.cdc.gov/phpr/pubs-links/2016/download.html](http://www.cdc.gov/phpr/pubs-links/2016/download.html). The National Snapshot, a report developed by the CDC, is an ideal indicator as it describes the progress of PHEP awardees toward preparing for public health emergencies. The report provides state level fact sheets that describe the range of activities and priority areas for each state, as well as key performance indicators to assess level of preparedness in those key areas. Although the 2016 CDC report is based on data from fiscal year 2014, the MWPERLC feels a comparison is justified since it allows us to identify the capabilities that continue to remain priority areas over time. Naturally, jurisdictions are expected to increase capacity after engaging in preparedness activities to build the response system required for each capability and
hence priorities will change. Nevertheless, a comparison will allow for the identification of capabilities that continue to remain priority areas for jurisdictions.

Figure 30 provides a comparison of the key PHEP capabilities most frequently funded by the CDC nationally during fiscal year 2014 and the top PHEP and HPP priorities identified by tribal and state and local partners via the needs assessment. Although the priorities from the needs assessment do not entirely align with all of the 2014 priority areas, there are indeed overlaps. Emergency Operations Coordination (EOC), for example, remains a key focus area for both state and tribal partners both nationally and in our service area. One possible reason for these overlaps may stem from the need for all PHEP grantees to enhance their preparedness capacity based on capabilities that form the fundamental foundation for overall public health preparedness and response. Therefore, it is no surprise that the national priority list consists of capabilities that are defined by the CDC as Tier 1 capabilities. PHEP awardees are encouraged to develop their Tier I capabilities prior to focusing on Tier 2 capabilities such as Community Recovery, Mass Care, Medical Surge, Volunteer Management, and Responder Safety and Health.

Taking this analysis further, if we consider the overall PHEP priorities listed by our tribal, state, and local partners (12) most are Tier 1 capabilities. This indicates that there is a need for jurisdictions to continually improve and enhance upon these foundational focus areas. The fact both tribal and state/local partner groups have prioritized Medical Surge and/or Community Recovery in our needs assessment further suggests some agencies and jurisdictions are comfortable with their level of preparedness for specific Tier I capabilities and are ready to invest resources and efforts toward improving Tier II capabilities.

Lastly, it would be imprudent to ignore recent events that have directed the attention of public health preparedness towards select focus areas. The recent threats of Ebola and Zika virus have not only required dedicated funding, they have also introduced new guidelines requiring public health agencies to engage in planning and preparedness efforts to ensure an adequate and timely response. This has resulted in an urgency to build local capacity via planning, training, and exercises to ensure a strong
foundation in Tier 1 capabilities, and to improve upon the more focused, Tier 2 capabilities.

Limitations and Lessons Learned

While it was possible to identify trends from the data provided by the respondents, these trends represent only those emergency preparedness personal who completed the entire respective survey. A primary limitation of the needs assessment is the low sample size. The MWPERLC service area includes Arizona, New Mexico, Colorado, Nevada, and Utah, inclusive of the jurisdictions and tribal communities located within each state. Of that entire population, the needs assessment only garnered a total of 66 unique responses. Therefore, the findings may be indicative of larger trends but are not a true representation of the primary needs of preparedness partners within our service area.

One possible explanation for the reduced number of responses may lie in the relative length of the surveys themselves: In order to gain an in-depth understanding and develop an accurate picture of the gaps, needs, and challenges in preparedness, the MWPERLC was compelled to create an assessment tool with a wide array of questions. As a result, the four surveys within the larger needs assessment varied in the number of questions ranging from 23 questions in the University partners survey to 58 questions in the State and Local Preparedness Partners Survey. Although the MWPERLC team made every effort to minimize the inconvenience for respondents (by allowing users to save and continue the survey and complete it over a 2-week time period), the relative length may have been a deterrent. Another challenge to generalizing the findings is the disproportionate number of public health professional respondents to respondents from other fields, particularly in the state and local assessment. Local health department personnel represented 46% of all respondents, followed by state health department respondents at 20%. While it is vital to have state and local health department participation, the data represents a public health perspective on preparedness and does not take into account the needs, gaps, and perceptions of the larger public health preparedness system. In order to have a more all-inclusive approach to the analysis, it is imperative to include the perspectives of numerous other agencies and fields outside of public health. Although substantial effort was placed upon disseminating the needs assessment request via our listserv and through our advisory board members, the limited reach of the survey is evident. The methods employed for distributing the assessment also precluded the ability to calculate an adequate response rate, since the number of potential participants versus those who completed the survey could not be determined. The MWPERLC team plans to engage with partners who are underrepresented through participation in meetings and engaging with our advisory board members who serve as a conduit to local preparedness partners.

In terms of validation, the MWPERLC intended to validate the findings of the needs assessments by comparing the data to corresponding state’s CPG. However, the differing scales at which CPG data and needs assessment data was aggregated and how the prioritizations were categorized limited our ability to conduct a thorough validation using this metric. The list below summarizes the differences in the two data sets:

1) In order to preserve anonymity of all respondents who responded to the MWPERLC needs assessment, all the needs assessment data was aggregated;
2) The data presented in the CPGs are broken down by jurisdiction;
3) The reported needs identified in the CPGs are identified by PHEP/HPP function rather than overall capability;

4) Capabilities are represented in the CPG, but the same capability can be reported as “high need” and “low need” based on the individual functions within that capability; and

5) The MWPERLC needs assessment did not evaluate specific functions under each PHEP and HPP capability.

While the level of detail provided by the CPGs is useful, and the documents are valuable tools to use in the future to better understand the needs of MWPERLC service area partners, the differences in each instruments design made it unfeasible to use the CPGs to validate the needs assessment.
Concluding Thoughts & Next Steps

The findings from the needs assessment provides a broad overview of the current state of emergency preparedness readiness in the MWPERLC service area. The responses from the assessment provided insight into the needs of tribal, state, and local partners and were aligned to the PHEP and HPP capabilities in terms of training, exercise support, and technical assistance. From this information, the MWPERLC is better equipped to tailor training and products to help increase the overall levels of preparedness within the jurisdictions surveyed. The data also shows that overall, collaborative relationships between partners have been pursued by many jurisdictions and the results of these relationships have been generally positive. While it is important to know that there is effective collaborative relationship among tribal, state, and local partners, it is equally important to note that there is room for improvement. The ultimate goal is for preparedness partners’ collaboration, cooperation, and communication to be 100% effective, not only in meeting target goals, but in building and maintaining relationships.

The MWPERLC needs assessment, in combination with the information gleaned during the Annual MAB Meeting, provided the MWPERLC team with useful information on the gaps and needs of the regions’ tribal, state, and local partners. In order to help bridge the gaps identified, the MWPERLC will direct its attention to addressing the specific needs identified by our regional partners. Over the short-term, this work includes the development of a:

- Strategies and Resource Guide for enhancing communication and collaboration in working effectively with Tribal Communities;
- Collection of case studies that illustrate tools, strategies, and best practices used by partners to engage in collaborative preparedness activities;
- 15-month sustainable training and technical assistance strategic work plan to build capability based on the MAB discussions and the Needs Assessment;
- Targeted Training action plans for each partner need identified during the Advisory Board Meeting to address the gaps indicated in this report; and,
- Online mechanism to enable partner to request technical assistance through the MWPERLC website “Technical Assistance” form.

Over the duration of the project cycle from January 2016 - August 2017, the MWPERLC aims to engage with our Advisory Board Members and additional network partners to address capability needs and to enhance multijurisdictional collaboration among service area partners.
Appendix A: Supplemental Figures

Specific Tribal Need by Public Health Emergency Preparedness Capability

<table>
<thead>
<tr>
<th>PHEP Capabilities</th>
<th>Number of Responses per Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Community Preparedness</td>
<td>16</td>
</tr>
<tr>
<td>2 Community Recovery</td>
<td>12</td>
</tr>
<tr>
<td>3 Emergency Operations Coordination</td>
<td>10</td>
</tr>
<tr>
<td>4 Emergency Public Information and Warning</td>
<td>8</td>
</tr>
<tr>
<td>5 Fatality Management</td>
<td>6</td>
</tr>
<tr>
<td>6 Information Sharing</td>
<td>4</td>
</tr>
<tr>
<td>7 Mass Care</td>
<td>2</td>
</tr>
<tr>
<td>8 Medical Countermeasure Dispensing</td>
<td>0</td>
</tr>
<tr>
<td>9 Medical Materiel Management and Distribution</td>
<td>14</td>
</tr>
<tr>
<td>10 Medical Surge</td>
<td>12</td>
</tr>
<tr>
<td>11 Non-Pharmaceutical Interventions</td>
<td>8</td>
</tr>
<tr>
<td>12 Public Health Laboratory Testing</td>
<td>4</td>
</tr>
<tr>
<td>13 Public Health Surveillance and Epidemiological Investigation</td>
<td>2</td>
</tr>
<tr>
<td>14 Responder Safety and Health</td>
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</tr>
<tr>
<td>15 Volunteer Management</td>
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</tr>
</tbody>
</table>

Figure 31- Tribal Specific Public Health Emergency Preparedness (PHEP) Priorities
Figure 32- Tribal Specific Hospital Preparedness Program (HPP) Priorities
Specific State-Local Public Health Emergency Preparedness Needs

<table>
<thead>
<tr>
<th>Capability</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Community Preparedness</td>
</tr>
<tr>
<td>2</td>
<td>Community Recovery</td>
</tr>
<tr>
<td>3</td>
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<td>11</td>
<td>Non-Pharmaceutical Interventions</td>
</tr>
<tr>
<td>12</td>
<td>Public Health Laboratory Testing</td>
</tr>
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<td>13</td>
<td>Public Health Surveillance and Epidemiological Investigation</td>
</tr>
<tr>
<td>14</td>
<td>Responder Safety and Health</td>
</tr>
<tr>
<td>15</td>
<td>Volunteer Management</td>
</tr>
</tbody>
</table>

Figure 33- State & Local Specific Public Health Emergency Preparedness (PHEP) Priorities
Figure 34- State & Local Specific Hospital Preparedness Program (HPP) Priorities
Appendix B: Root Cause Analysis Map
Appendix C: References


