Spirit of Community Health

Toolkit

Tribal Public Health Practitioners Toolkit for Assessing a Public Health System and Services

2015

ACKNOWLEDGEMENTS

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Section 1: Conducting a System and Services Assessment

Background

Tribal health agencies generally face a number of challenges to improving health, such as social inequities, cross-cultural barriers, limited access to care, and lack of parity in financial resources available through the federal government, in addition to other challenges unique to each community. Effectively addressing these causes of disease and death requires interventions outside of a medical office exam—preventive services, chronic care management, community-based health services— interventions that are inherent to public health. Public health is focused on protecting and promoting the health of entire populations through a broad array of organized strategies which create conditions in which people can be healthy and supporting healthy practices and behaviors through assessment, policies, and assurance of access to health care[1]. Governmental public health agencies lead the charge for addressing the greatest threats to the health of the communities, in partnership with other organizations and stakeholders in the public health system.

Given the severity and persistence of health disparities experienced by tribal populations, it is imperative to explore how tribal health agencies can effectively improve the health of tribal members and eliminate the disproportionate burden of poor health through tribal public health system organization and delivery of essential public health services. Completing a public health system assessment can be an informative first step for tribal health agencies to take when exploring options for strengthening the public health system.

About the Toolkit

What is the purpose of the toolkit?

The purpose of this toolkit is to provide tribes with a set of resources to assess how their public health system is organized and performs relative to the core functions and essential public health services. The toolkit contains a collection of tools and resources which were used by our team to closely explore these issues within one tribal public health system, as part of a larger research study. The study aimed to explore the partnerships within a tribal public health system that protected and promoted health; examine how and through what relationships a tribal public health system delivered public health services; and assess the key characteristics of a tribal public health system that addressed health disparities.

Why complete a system assessment?

Public health problems are complex. They often affect entire populations and strain resources because they cannot be addressed within an exam room, and they do not stay within jurisdictional boundaries. As sovereign nations, tribes have a vested interest in providing valuable public health services to their own communities. Yet, these services cannot be fully delivered through a single entity alone. Rather, they rely upon partnerships between various tribal and non-tribal agencies. Determining who provides what services and to what extent the needs of the community are being met can be a complicated undertaking. A system assessment can provide valuable information for developing plans which are

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[1] CDC Foundation. (2015). *What is public health?* Retrieved from http://www.cdcfoundation.org/content/what-public-health
World Health Organization. (2015). *Health*. Retrieved from http://www.who.int/trade/glossary/story046/en/

integral to public health system performance, such as an agency strategic plan or workforce development plan.

Who is this toolkit designed for?

This toolkit was developed for tribal leaders, tribal health agency administrators, tribal public health practitioners and other public health system partners who are involved in delivery of public health services within tribal communities. There are other tools available for assessing public health systems which can also provide very valuable information. We believe there are aspects of this toolkit which may make it a better fit for some tribal communities:

- This toolkit contains a set of tools and resources which were developed and implemented in partnership with people experienced in working within tribal systems;
- The assessment is designed to be exploratory and descriptive, rather than specific and prescriptive. There are no rankings, ratings, standards, or measures to measure your system against. This approach may be better suited to tribal agencies in earlier stages of formally developing a public health system, those just getting started in thinking about public health accreditation, and those not pursuing accreditation but interested in identifying strengths and areas for improvement;
- The tools are adaptable and the approach is designed to be as basic or comprehensive as is needed for your unique system; and
- The tools generate a variety of types of information, including specific examples and stories of system strengths and areas for improvement, which can be helpful for communicating with a variety of stakeholders who are less well versed in public health concepts and terms.

How to Conduct the Assessment

This section briefly describes the steps that our team followed to assess the tribal public health system, including the resources that we referenced and the tools that we used for each step. There is not one "right" way to do the assessment. The assessment should best fit your timeline, resources, and goals.

In general, the assessment has six phases:

1. Preparing for the system assessment
2. Identifying your tribal public health system partners and stakeholders
3. Selecting and recruiting participants
4. Collecting data
5. Compiling and analyzing data
6. Bringing it all together

Within the description of each phase, we describe some of our key lessons learned through conducting the assessment using this approach.

Preparing for the assessment

To ensure the study was utilization focused and culturally relevant, it was informed by a tribal advisory group with members from national, regional, and local tribal agencies. Referred to as the Tribal Advisory

Group, this group included tribal public health professionals and decision makers who have been engaged in public health practice in Indian Country at all levels and are rooted in tribal culture and practices. For a local system assessment, you may wish to form an advisory group that can help you make well-informed decisions based on their knowledge and experience working with public health system partners and the community members they serve. Your advisory group should include the individuals and organizations who are most likely to use the results of the assessment, and those who have a stake in how the public health system functions.

The study was guided by a set of research questions. These questions gave the study focus and direction. The local system assessment can also begin with a set of questions that your advisory group hopes the assessment will answer. Questions might include:

- What organizations play a role in keeping people healthy in our community?
- How do organizations that keep people healthy interact with each other?
- What services do organizations that keep people healthy deliver?
- What gaps in services do we face in our community?

Because our assessment was conducted as part of a research study, we also submitted an application to an Institutional Review Board prior to starting data collection. If you are interested in tools and tips for completing an IRB application for this assessment, please contact slaing@mphi.org for more information.

Other factors that are important to consider when you are first getting started are your overall goals for using the assessment results, the timeline that you have available for completing the assessment, and the resources (e.g. staff time, budget, travel support, funds to provide participants with incentives, etc.) you have available through your agency and partnerships. Decisions about these factors will influence the decisions you make in each of the following phases to be described.

Identifying your tribal public health system partners and stakeholders

In order to study the public health system, you must first decide what will be "included" as part of the system and define "public health" from a tribal perspective. It is not possible to include all agencies and people in the community as part of the system assessment. You must determine at the onset of the assessment what the boundaries and limitations will be for data collection efforts.

The first step we took toward defining the public health system was looking at various definitions and models of public health systems. We looked at reliable sources, including World Health Organization, Institute of Medicine, and Centers for Disease Control and Prevention. See "#1. Definitions and Models of Public Health Systems" for specific examples and references we used. For our study, we decided to combine and adapt multiple models to best fit the description that tribal health staff were giving about their system.

The definition of public health we developed in collaboration with a tribal workgroup to help get the study started was as follows:

*"Public health, sometimes called community health, refers to **all collective efforts to prevent disease, promote health, and prolong life among the tribal community** as a whole with consideration for the wellbeing of seven generations. Public health aims to provide conditions where people live, work, learn, and play in which tribal members and their families can be healthy and well. While medical care focuses on the health of individual patients, the focus of public health is on the health of the entire tribal population. In other words, for public health the whole community is the "patient." Further, public health in The Tribe is concerned with making decisions and carrying out activities that treats the entire tribal community as one extended family, and honors (traditions/values/beliefs) of past, present, and future generations."*

*There are **three main functions** of public health:*

1. ***Assessment and monitoring****: The collection and review of data and information over time which measures the health of community members, helps identify groups of people at risk for poor health, and highlights health problems and priorities that exist;*
2. ***Policy:*** *The creation or improvement of organizational and tribal policies that can help solve health problems and priorities by protecting the community from health threats and reducing health risks;*
3. ***Assuring access to care:*** *Taking steps to make sure community members are able to get appropriate and cost-effective medical care, preventive services, health education, and support for wellness.*

The Tribe's public health system is a complex group of tribal and non-tribal people and organizations that all play a role in creating community conditions that protect tribal members from health threats, educate and support people to reduce health risks, and promote overall wellbeing. Each organization may take action on their own which directly or indirectly impacts health. When these organizations work together toward shared health goals, they are acting as a public health system.

In order to communicate with stakeholders in concrete terms about the tribal public health system, when we were first getting started we referred to the IOM model of a public health system to talk about the various sectors and types of agencies involved in a public health system (shown below).
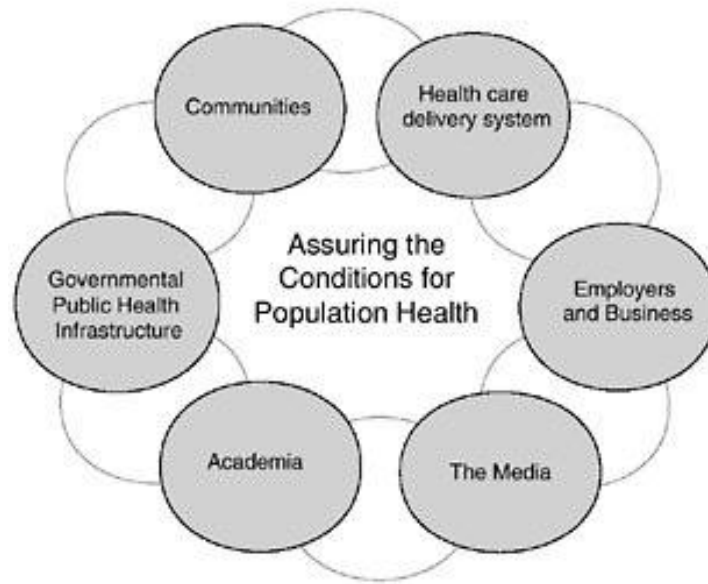
Figure 1. Institute of Medicine Public Health System Model

After completing data collection and analysis of key informant interview and ecomap data, our final version of a model of a tribal public health system resulted in 20 organizational sectors, including:

- Tribal health agency
- Human services
- Other Tribal organization
- Community group
- Economic planning and development
- Mental health
- Governmental public health
- Environmental organizations
- Media
- Non-profit organizations or charities

- Education or youth development
- Governmental authority
- Private employer/business
- Governmental administration
- Court and criminal justice
- Public safety
- Federal agencies
- Recreation or arts-related organization
- State agencies
- Health care providers

The public health model and list of sectors could be useful to you for determining what stakeholder groups and agencies you will consider as part of your public health system.

Our study was organized around a conceptual framework that guided the research questions and focused the scope of the study. The components of a public health system that guided the study included: goals and mission, structure and sociocultural context, services, and health outcomes. These concepts could also be used for determining the scope and boundaries of your system assessment, in terms of deciding what aspects of your system you will collect data to describe and understand. For the final version, see #2. Tribal Public Health System Conceptual Model.

Selecting and recruiting participants

Key informant interviews

The approach that we used for selecting participants to assess the system was what we described as "from the inside, out." We started with the program staff within the tribal health agency who were delivering many of the core public health services. As a group, we discussed each of the essential public health services and brainstormed a list of agencies that the staff members interacted with in order to fulfill the services. For each service, we asked, "what agency does this for the Tribal community?" and then followed-up with questions such as, "who else?" or "who do you think may do this?" See #3. Partner Brainstorm Worksheet for a sample worksheet to assist with this conversation.

Once we brainstormed a list of agencies, we asked staff to identify key individuals that they worked with from each of these agencies. If there was not an individual who could be identified as a key contact for the tribal health staff, we listed the key decision makers for each agency (e.g. director, manager) instead. Potential key informants from public health system partner organizations (e.g. local health departments; hospitals; law enforcement; housing; tribal administration) were identified during this stage to get started. During data collection we used snowball sampling to identify additional key informants, meaning that each participant identified additional participants in his/her interview or ecomap.

Using MS Excel, we developed a participant recruitment tracking spreadsheet. See #4. Participant Recruitment Tracking Spreadsheet for this tool. We used this spreadsheet to list every individual who was invited to participate in the study, as well as the date, type, and outcome of each recruitment contact. We used this spreadsheet throughout the study to ensure that we stayed within the target number of contact attempts, that the timing of contact attempts were appropriate (i.e. allowing adequate time for responding to our request), and that we were using a variety of methods for contacting individuals who were somewhat difficult to reach.

Recruitment methods for the key informant interviews and ecomapping included email, telephone, and in-person contacts. We used a standard email message for all preliminary email contact attempts. See #5. Key Informant Recruitment Emails. The initial email contact was sent from the email account of one of the tribal health agency staff members. We provided individuals with a one-page factsheet that described the purpose of the study, the timeline, research questions, and partners involved in carrying out the work. See #6. Study Factsheet. We sent each individual up to three follow-up requests for their participation in the study. We tried a variety of contact methods in order to increase participation rates.

Participants had the option to sign up for their interview by email, phone, or in-person contact. We also used a free web-based scheduling tool (www.signupgenius.com) that allowed participants to select a specific time slot for their interview. Once a participant signed up for an interview, we sent the person an email confirmation of their appointment date, time, and location. Upon request, we provided an abbreviated copy of the interview protocol to individuals prior to their interview.

Prior to starting interviews, it is helpful to set a goal for the number of interviews you want or need to complete. Based on our experience, we would recommend the goal would be to interview someone at each organization that you have identified as having a key role in the system. However, you will likely need to prioritize the list if it is too many interviews to do depending upon the size of your system. If you need to set limits for data collection, a good target would be a minimum of 20 interviews, but focus on getting representation from the "major players" in the system.

Focus groups

Selecting participant groups for the focus groups was informed by various priorities of the tribal agency staff and community stakeholders. First, we worked with tribal health agency staff to identify groups of community members who they believed had important perspectives to provide for the study. This initial list was presented to the governing body (Tribal Board) and their input was sought on the proposed groups. We also used key informant interview data to identify geographic locations within the tribal service area that may be priorities for data collection based upon information that emerged regarding issues with access to care.

Our recruitment methods for the focus groups involved working with tribal health staff to identify key players within various tribal departments and programs who were well connected to the community groups and community stakeholders of interest. The key contacts at each tribal agency worked with tribal health agency staff to distribute emails, letters, and flyers to community members in targeted groups. Whenever possible, focus groups were held at community locations that required no transportation or were held in conjunction with other events that were already bringing people to the location. For example, the tribal youth education program helped organize two focus groups with youth that were held in conjunction with a tribal youth leaders meeting. The tribal housing staff helped get information out to residents about a focus group being held at the housing sites. See #7. Focus Group Recruitment Flyer for an example recruitment flyer.

As with interviews, it is a good idea to set a goal for the number of focus groups and the number of participants you want to complete. For focus groups, we would suggest that you identify the most important groups (e.g. elders, parents, etc.) and aim for complete two groups with each type. Each focus group will ideally include 6-10 people per group.

Collecting data

The data collection period for our study lasted six months. Collecting data took longer than we expected. For a system assessment, we felt it was most important to have a good amount of information from a very representative group of people within the system, in order to draw accurate conclusions from the data. Therefore, we made the choice to continue collecting data until our goals were met.

Key informant interview

Key informant interviews followed a semi-structured protocol with a set of questions that were primarily open-ended. The protocol encouraged people to talk and provide detailed responses related to very specific topics. See #8. Key Informant Interview and Ecomap Protocol.

The interviews asked about the mission and purpose of the public health system and individual organizations; the structural capacity of the tribal public health system (i.e., organizational, financial, workforce) and how it influences collaboration and communication across entities; the power and influence of key decision-makers on public health practices; the role of other macro-systemic forces in shaping system organization and functioning; and implementation of Ten Essential Public Health Services.

Each interview lasted between 30 minutes and 4 hours. The length of interview varied depending upon the level of involvement the individual had with delivering public health services and how many other people the person interacted with in order to carry out their work. Individuals who came up during data collection were subsequently invited to participate in an interview. Participants were offered a $20 gift card in exchange for their participation.

Ecomapping

As part of the key informant interview, participants were also asked to complete an ecomap. Ecomapping is an approach that involves a semi-structured interview with a person of interest and development of a visual diagram over the course of the dialogue[2]. Ecomaps were used to visually display the relationships and interactions of professionals within the tribal public health system. During the key informant interview, the interviewers took note of specific organizations and individuals mentioned by the participants. After the interview, the interviewers worked with the participants to diagram their relationships to each person and to individuals at the organizations listed. For each relationship, participants identified the direction and intensity of the exchange of information and resources, as well as which of the 10 Essential Public Health Services they performed with that person. Each person in the ecomap, including the participant, was labeled with their organization, title, and supervisor.

During the interview, the interviewer took detailed notes, specifically writing down any names the person mentioned of individuals or agencies with whom he or she interacted in order to carry out essential public health services. At the conclusion of the interview, the interviewer explained the ecomapping process using the standard script and protocol.

As mentioned previously, interviews and ecomaps together lasted an average of 1 and ½ hours, with a range of 34 minutes to 4 hours. People who were very involved in delivery of public health services had a more complicated ecomap diagram and their ecomapping portion of the interview lasted much longer. We estimate that the ecomapping process on its own required about 30 minutes on average to

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[2] McCormick, K., Stricklin, S., Rous, B., Kohner-Coogle, M., Nowak, T., & National Early Childhood Transition Center. (2005). *Using eco-mapping to understand family strengths and resources*. Retrieved from http://www.hdi.uky.edu/nectc/Libraries/NECTC_Presentations_Research_Techniques/Using_Eco-Mapping_to_Understand_Family_Strenghts_and_Resources.sflb.ashx

complete. We used a basic template for drawing the ecomap together while sitting with the key informant. See #9. Ecomap Diagram Template.

One of the strategies we used for keeping the system assessment focused on the tribal public health system (and to avoid defining the system too broadly) was to only complete ecomaps with individuals working in tribal agencies. Although we conducted the interview with all partners and stakeholders identified as playing a role in the system, we developed the ecomap for the system based only on the perspective of tribal agency staff.

Focus groups

The moderator's protocols for the focus groups were developed, reviewed, and finalized through a collaborative process with project stakeholders. See #10. Focus Group Protocols for the questions and guidance for focus groups with parents, elders, youth, and adults. The focus group protocol asked about how participants defined health and the health outcomes that are valued within their community. They also asked about how effectively the public health system performs with regards to access to services, community engagement, evidence-based interventions, education about public health issues and functions, strategies addressing health disparities, and public health laws. Supplemental questions were added to the focus group protocol for the parent and elder focus groups that asked about experiences particular to those groups (e.g., parent concerns about raising healthy children, unique health issues affecting elders). A separate focus group protocol was used for youth that used developmentally appropriate language. All focus groups were audio-recorded using digital recorders.

Review of program documentation and secondary data

In addition to collecting primary data, we collected existing documents, legal records, and datasets to assess the historical and current tribal context, public health system organization, performance, and outcomes. Particular attention was given to processes related to performance monitoring and tracking health outcomes, service delivery, community mobilization, tribal public health law implementation and enforcement, tribal workforce, and policies and procedures. Potential sources of information you may wish to include in a review like this would be a population-based health survey; clinic or electronic health record data; US Census data; the current agreement with IHS; strategic plans; grant workplans; Tribal Constitution; Tribal Codes; Tribal Board or Council resolutions and/or meeting minutes; the Tribe's website (webpages and downloadable files) and newspaper. We recommend setting a target time period for all the documents you will be collecting and analyzing so that they are all describing the context around the same point in time.

Compiling and analyzing data

Qualitative data analysis

All interviews and focus groups were transcribed verbatim by professional transcription services. Analysis followed the methods of Taylor and Bogdan[3]. The members of the study team developed a coding scheme based on emerging ideas, themes, concepts, and propositions discovered through transcript analysis. See #11. Qualitative Analysis Coding Scheme. Using the coding scheme, each

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[3] Taylor, S.J., & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resource* (3rd ed.). New York, NY: John Wiley & Sons, Inc.

interview transcript was coded independently by two study team members, using the qualitative software NVivo. Any coding discrepancies were discussed until a consensus was reached. Once the data from the interviews and focus groups had been coded, the study team reviewed the data to develop interpretations, findings, and conclusions.

Social network analysis

Ecomaps were analyzed using the network analysis software, NodeXL. NodeXL is a free, open source template for MS Excel. For a description of how to use this program to enter and code ecomaps, see #12. Network Analysis using NodeXL.

Each relationship present in the ecomaps was entered as an edge into a single NodeXL file. The result was a network graph of all of the ecomaps combined, representing the tribal public health system. The characteristics of each relationship (e.g., resources, 10 EPHS) were also entered into the NodeXL file. Using the reported organization for each person in the network, the study team categorized the organizations as tribal/non-tribal and as one of 20 different organizational sectors adapted from the National Public Health Performance Standards' description of a public health system[4], the IOM's model of a public health system[5], and the partner sectors described in the County Health Rankings Roadmaps to Health Take Action model[6].

Data from the interviews indicated that staff from the Tribe's medical clinic and Community Health Program did not consider themselves to be two separate entities, but rather, all part of one agency – the Health Division. This finding was confirmed through member checking. Therefore, individuals in the network graph who worked for the tribal medical clinic or Community Health Program were all assigned to one organizational sector, Tribal Health Division, for analysis. Data from interviews also indicated that the 10 Essential Public Health Services did not accurately represent the core services and functions performed by the Health Division. Therefore, the 10 Essential Public Health Services were collapsed into the IOM's (1988) three core functions of public health for analysis: Assessment (EPHS 1 & 2), Policy Development (EPHS 3-5), and Assurance (EPHS 6-9).

Graph metrics were calculated for the tribal public health system network graph. Groups were created based on the assigned organizational sectors and group metrics were also calculated. A description of each metric calculated can be found in Table 1.

Table 1. Tribal public health system network analysis metrics

Graph Metric	Description
Connected component	Vertices that are connected to each other, but disconnected from other parts of the network.
Density	The degree or level of interconnectedness.

[4] CDC. (2014). *The public health system and the 10 Essential Public Health Services*. Retrieved from http://www.cdc.gov/nphpsp/essentialServices.html

[5] Institute of Medicine [IOM]. (1988). *The future of public health*. Washington, D.C.: National Academy Press.

[6] County Health Rankings & Roadmaps. (2015). *Action center*. Retrieved from http://www.countyhealthrankings.org/roadmaps/action-center

Geodesic distance	The shortest path between two vertices (e.g., people).
Degree centrality	The total number of connections for a vertex.
Betweenness centrality	How often a given vertex is on the shortest path between two vertices (geodesic distance). In other words, how often does one individual serve as a bridge connecting other individuals in the network, on average, determined by how well connected an individual is to others in the network.

Content analysis

In order to identify themes that emerged from the collection of program documents and secondary data sources related to public health services and laws we used content analysis techniques. Legal documents, such as the Tribal Code, Tribal Constitution, and Tribal Board or Council resolutions were analyzed using a basic conceptual approach to content analysis. The existence of the term 'health' and related concepts (e.g. healthy, wellbeing, wellness) within the documents were used to identify and describe three types of policies: tribal public health policies and laws, tribal laws and policies with health implications, and non-health laws and policies. The number of policies and resolutions in each category were counted. In order to track our categorization of legal documents and articles we created a spreadsheet. See #13. Tribal Codes, Laws, and Resolutions Spreadsheet.

In addition, conceptual analysis within the public health laws and policies and policies with health implications was conducted to identify the existence of text which describes purpose, goals, authority, jurisdiction, enforcement, key agencies and individuals, and implications of each policy within the tribal community.

Member checking

Preliminary analyses from all data sources for the study were presented to the tribal staff workgroup and other tribal public health stakeholders through a series of meetings and workshops in order to engage stakeholders in interpretation and member checking. Member checking focuses on respondent validation, and for this study, checking took place once qualitative data were interpreted and summarized. Member checking involves going back to research participants to provide them the opportunity to critically analyze the study findings to ensure they reflect their experiences (Richards, 2015). It also affords members of the advisory group and additional stakeholders the opportunity to vet the findings and speak to the extent to which the findings from the selected tribal public health system resonate and are reflective of the experiences of members within other tribal public health systems.

Bringing it all together

Synthesizing your results

Once all of the data are analyzed, the key findings of the complete assessment need to be identified and described. One way to approach this process that is fairly deductive would be to describe what you learned from the data as it relates to a specific model of public health, such as the conceptual model we used for the study (see #2. Tribal Public Health System Conceptual Model), or to a set of standards such

as the Public Health Accreditation Board's Standards and Measures for National Accreditation in Public Health.

Another way to organize and describe your findings which is more emergent or inductive is to engage stakeholders in a participatory process of categorizing your results into strengths, weaknesses, opportunities, and challenges. For example, results of each of the assessment data sources can be presented to a group of stakeholders and afterwards the group can answer a set of questions to generate a list of facts or data points into each of the four categories. Following are questions that are useful for this type of group activity:

- What do our results tell us our public health system is doing well right now?
- What do our results tell us about services or activities that are not going as well as they need to be going in order to fulfill our goals or address community needs?
- What results suggest opportunities exist for strengthening our system and improving services?
- What results describe challenges our community is currently facing in our efforts to deliver public health services?

Using your results for action

Once the key findings of the assessment are organized and summarized, there are a number of ways that this information could be used for public health system improvement. Following is a list of a few potential activities for maximizing your assessment results:

- Give presentations to tribal leaders and other local leaders to increase awareness about essential public health services in the tribal community.
- Give presentations to community groups to increase awareness about essential public health services and gather input on opportunities for improvement.
- Develop a set of factsheets about the tribal public health system and services that are provided to community partners to generate understanding of how the system is organized and functions.
- Develop a statement of need or describe the community context in grant proposals.
- Use the findings as part of the environmental scan and SWOC analysis for your organizational strategic plan for the health department.
- Develop policy briefs for tribal leaders and local leaders to educate and inform governmental bodies about public health policies and codes that could protect and promote health.

Section 2: Protocols, Tools and Resources

#1. Definitions and Models of Public Health Systems

"Public Health" (World Health Organization[7]):

Public health refers to all organized measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole. Its activities aim to provide conditions in which people can be healthy and focus on entire populations, not on individual patients or diseases. Thus, public health is concerned with the total system and not only the eradication of a particular disease. The three main public health functions are:

4. The assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities.
5. The formulation of public policies designed to solve identified local and national health problems and priorities.
6. To assure that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services.

"Public Health System" (Institute of Medicine[8]):

A public health system describes a complex network of individuals and organizations that have the potential to play critical roles in creating the conditions for health. They can act for health individually, but when they work together toward a health goal, they act as a system—a public health system (see Figure).
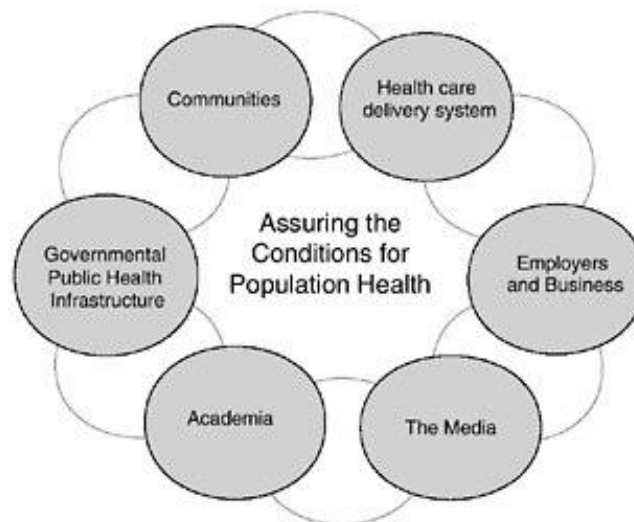
Figure. The intersectoral public health system.

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[7] World Health Organization. (2015). *Public Health*. Retrieved from http://www.who.int/trade/glossary/story076/en/

[8] IOM. (2003). *The future of the public's health in the 21st century*. Washington, D.C.: National Academies Press.

A public health system would include the governmental public health agencies, the health care delivery system, and the public health and health sciences academia, sectors that are heavily engaged and more clearly identified with health activities. The committee has also identified communities and their many entities (e.g., schools, organizations, and religious congregations), businesses and employers, and the media as potential actors in the public health system.

Characteristics of Public Health Systems

A public health system is multiple sectors of "actors" who, together with the government public health agencies, are in a position to act powerfully for health. *For the purpose of brevity, some sectors or potential partners have been subsumed under the category of community (e.g., schools, law enforcement).*

- It is **not just health departments that play a role in carrying out the 10 essential public health services**. Other sectors of society can contribute by transforming their impacts on the public's health so that they are no longer the result of random and unintentional actions but are the result of **informed, strategic, and deliberate efforts to positively affect health**.
- The emphasis on an intersectoral public health system does not supersede the **special duty of the governmental public health agencies** but, rather, complements it with a call for the contributions of other sectors of society that have enormous power to influence health.
- **Non-traditional "actors"** can be considered part of public health systems, too.
  - Businesses play important, often dual, roles in shaping population health: occupational setting, environmental impacts, as members of communities, and as purveyors of products available for mass consumption; facilitating economic development and regional employment and workplace-specific contributions such as health promotion and the provision of health care benefits.
  - The media has a deeply influential role as a conduit for information and as a shaper of public opinion about health and related matters.

10 Essential Public Health Services

The strength of a public health system rests on its capacity to effectively deliver the 10 Essential Public Health Services:

1. **Monitor** health status to identify community health problems.
2. **Diagnose and investigate** health problems and health hazards in the community.
3. **Inform, educate and empower** people about health issues.
4. **Mobilize** community partnerships to identify and solve health problems.
5. **Develop policies and plans** that support individual and community health efforts.
6. **Enforce** laws and regulations that protect health and ensure safety.
7. **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. **Assure** a competent public health and personal health care workforce.
9. **Evaluate** effectiveness, accessibility and quality of personal and population-based health services.
10. **Research** for new insights and innovative solutions to health problems.

#2. Tribal Public Health System Conceptual Model

Context/ Environment

History
Geography
Climate
Social Norms
Economy

Mind/ Infrastructure

Jurisdiction
Governance
Financing
Partnerships

Spirit/ Community Spirit

Cultural tailoring
Cultural competence

Body/Resources

Human resources
Community knowledge

Mission & Purpose
Culturally constructed
Philosophy and goals

Processes

Assure personal health services are person-centered, holistic, culturally tailored, integrated, and available to all community members.

Design and administer culturally tailored community health programs to Improve population health.

Offer education and information to community members to engage them in health improvement; shift knowledge, beliefs, behaviors, and norms; and honor traditions and values.

Build networks and engage with partners across systems to impact priority health issues.

Monitor threats to health, and plan for and respond to emergencies on tribal lands and across jurisdictional boundaries throughout the service area.

Advocate for policy, funding, programs, and services that would improve the community's health.

Assess health status around specific issues & develop plans to address community health concerns.

Use data and best practices to improve services, both for the tribe and through sharing lessons learned.

Outcomes

Harmony & balance within the individual, family, community & with nature

Social/ emotional, physical, intellectual, & spiritual wellness

Equity

#3. Partner Brainstorm Worksheet

	10 Essential Services	**Tribal Public Health System Partners (agencies and groups)**	**Key contacts (most knowledgeable person)**
1	Monitor health status to identify and solve community health problems		
2	Diagnose and investigate health problems and health hazards in the community		
3	Inform, educate, and empower people about health issues		
4	Mobilize community partnerships to identify and solve health problems		
5	Develop policies and plans that support individual and community health efforts		
6	Enforce laws and regulations that protect health and ensure safety		
7	Link people to needed personal health services and assure the provision of health care when otherwise unavailable		

8	Assure a competent public health and personal healthcare workforce		
9	Evaluate effectiveness, accessibility, and quality of personal and population-based health services		
10	Research for new insights and innovative solutions to health problems		
*	**OTHER KEY PARTNERS IMPORTANT TO TRIBAL COMMUNITY HEALTH**		

#4. Participant Recruitment Tracking Spreadsheet

Name	Position	Organization	Email	Phone Number	1st contact date	1st contact method	2nd contact date	2nd contact method	3rd contact date	3rd contact method	Interview complete (date)

#5. Key Informant Recruitment Emails

Greetings [name]:

You are invited to take part in an interview about health and wellness in the Tribe community. The Tribe Community Health program would like to get input from key members of the Tribe public health system about their agencies and how they work with other organizations in the Tribe community to protect and promote health and wellness.

These interviews are one way Tribe Community Health is gathering data for the study being conducted by the Tribe in partnership with [other partners]. The study will help us understand how a Tribe structures its public health system and partners with other agencies to protect and promote health of people in the tribal community.

The interview should take about 60 minutes to complete. We can conduct the interview by telephone or in person on [dates]. If you are willing to participate, please contact [contact person name] by phone XXX-XXX-XXXX or email person@address. Each participant will receive a $20 gift card as a 'thank you' for their time and cost of participating.

If you are willing to participate, please reply to this email with your first and second choices for a time slot. Or go online to [WEBSITE ADDRESS] to sign up for a time slot for your interview.

If you have any questions about this interview or the research study, please contact [contact person above] or NAME, TITLE, CONTACT INFORMATION.

Thank you for your time and consideration. Your input would be a valuable contribution to the study and our efforts to improve community health programs.

Sincerely,

Name

Title

Agency

Contact information

Greetings,

Tribal Community Health has identified your agency as being an important partner in their efforts to protect and promote the health and wellbeing of Tribe members living in communities throughout the Tribe's service area. Because of the key role that you play, we are asking you to allow us to interview you about how you work with the Tribe around issues that affect community health.

We are interviewing several people throughout the community to gather data for study. The Tribe is conducting this study in partnership with other tribal agencies. The purpose of the study is to understand how a public health system is organized and operates in tribal community settings. The study results will be used by the Tribe to strengthen our public health system, and also shared with other tribes across the country to help them in their efforts to improve capacity to improve health.

We are hoping you will allow a member of the study team to conduct an in-depth interview with you about the work of your agency. The interview will take about 1 hour. We will ask you questions about your agency's mission and purpose, the activities you undertake in cooperation with the Tribe, and how your agency's work aligns with the Tribe's fulfillment of essential public health services. The interview will be confidential. If you would like, we can provide you with the questions prior to the interview.

We will work with you to conduct the interview at a time and place that is convenient for you. To compensate you for your time and contribution to the research, you will be given a $20 gift card for your participation.

By clicking the link below, you will be able to view the time slots we have available to conduct the interview. The interview will take about one hour to complete. If you are able to help us by doing an interview, please click on this link to schedule your interview:

[INSERT UNIQUE WEB SCHEDULING LINK for www.signupgenius.com]

If you have any questions, please reply to this email, or contact Name, Title, Agency, Contact Information

#6. Study Factsheet

The Spirit of Community Health Study

In May 2014, the Sault Tribe Board passed a resolution to partner with the Michigan Public Health Institute (MPHI), Inter-tribal Council of Michigan (ITCM), and a national Tribal Advisory Group on a study that explores the Tribe's capacity to fulfill the Ten Essential Services of Public Health. This study is funded by Robert Wood Johnson Foundation Public Health Services and Systems Research (PHSSR) program. PHSSR examines the organization, financing, delivery, and quality of services that promote health and wellbeing. RWJF funds PHSSR studies with a goal of improving performance and efficiency of community health agencies.

Ten Essential Services of Public Health

➢ This research study will:
- Be overseen by Sault Tribe staff and leadership;
- Honor principles of a community-based participatory approach;
- Seek to answer questions about how organizations communicate, share resources, and work together to protect and promote wellbeing of tribal community members;
- Use methods and approaches that are culturally relevant and appropriate for Sault Tribe; and
- Receive guidance from an Advisory Group made up of professionals working in tribal communities and conducting research with Native Americans across the nation.

➢ The role of Sault Tribe as the Community Research Partner in this study is to:
- Help inform and oversee research activities to make sure study goals are met while honoring culture;
- Get community members, leaders, and partners involved in the study;
- Lend expertise and insight for understanding the results; and
- Create and share the findings and recommendations of this study to tribal leaders and partners to guide future efforts to improve health in Indian Country.
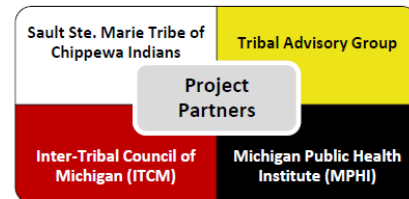
➢ The questions to be explored through this study are:
- How does Sault Tribe view their community health system?
- Who are the key actors and decision-makers within the tribal community health system?
- In what ways are community partner agencies monitoring system performance and tracking health data?
- How do agencies, leadership, human resources, financial support and other infrastructure elements within the tribal community health system influence how the Tribe addresses pressing health issues?
- What influence do organizational relationships have on the Tribe's capability to improve health of community members?

➢ Sault Tribe can use the results and information created through this study to:
- Strengthen partnerships with agencies that can help better ensure wellbeing of the tribal community;
- Guide strategic planning, grant writing, and decisions about financial resources;
- Make decisions about services and programs that will help the Tribe achieve its community health goals; and
- Guide efforts to assure capacity to protect and promote health and wellbeing in the future.

This groundbreaking study will fill critical gaps in knowledge of tribal community health and guide future research efforts by tribal agencies. Results of the study will be shared widely to help improve health and wellbeing in Indian Country.

For more information about this study, please contact Shannon Laing, MPHI Program Coordinator at 517.324.7344 or slaing@mphi.org.

What do you think about health in [Tribe]?

Community Health wants your input on the health needs of community members and how the Tribe is meeting or not meeting these needs through current programs and services. We are hosting several focus groups to gather this input.

These focus groups are part of our "Spirit of Community Health" study being conducted by the Tribe in partnership with other community agencies. This study will help us improve our public health system and the health of the tribal community.

The focus group should take about 1 hour. Each person gets a $20 gift card for participating.

To join this focus group or get more information, please contact:
[CONTACT NAME, PHONE, AND EMAIL]

Date:

Time:

Location:

#8. Key Informant Interview and Ecomap Protocol

Hello, I'm [*interviewer name*] and I am from the [*agency name*]. I am a member of the study team working on a research project funded by [name of funding agency]. As you know, we are talking with you today about your experiences working with the Tribe on efforts that affect community health. During this interview we hope to learn about the mission and purpose of the agency where you work and how your agency works with other organizations in the community to protect and promote health. As part of the interview, we will be creating a diagram called an ecomap, to represent the network of individuals at other agencies with whom you interact and exchange resources. As you mention individuals or agencies during the interview, I will write them down. Then, at the end of the interview, we will draw the ecomap, which I will explain in more depth at that time. The interview and ecomap will take between 1 and 3 hours to complete depending upon your answers.

Before we get started I need to be sure that you understand all your rights as a research participant. I have given you a consent form. Please take a few minutes to read the consent statement and let me know if you have questions or if there is any information I need to explain further.

[*DIRECT INDIVIDUAL TO THE CONSENT FORM*]

As this consent form states:

- Your participation in this study is totally voluntary.
- If you decide you want to quit participating at any time, it will not affect you in any way.
- The chances of experiencing risks from participating in this study are very low.
- There are no direct benefits to you for taking part in this study.
- I will be audio recording the interview as well as taking notes. The recording and typed notes will be kept confidential and secure.
- To compensate you for your participation, you will receive [incentive] when we finish the interview. It is your responsibility to know your agency policy about accepting compensation to answer questions on behalf of the agency and/or during work time.

Do you have any questions? Please indicate your consent to participate (verbally/in writing) for documentation purposes. [*TELEPHONE INTERVIEW: ASK CONSENT QUESTIONS AND DOCUMENT RESPONSE; IN-PERSON INTERVIEW: COLLECT CONSENT FORM*]

[*HAND RESPONDENT A BLANK COPY OF THE CONSENT FORM*]. This copy is for you to keep. If you have any questions about your participation in the study, or about this project in general, you may contact the study coordinator, [coordinator name]. If you have questions about your rights as a research participant you can contact [IRB Chairperson name] Institutional Review Board Chairperson. Their contact information is on the bottom of the consent form.

Interviewee Name:	_____
Agency:	_____
Title:	_____
Date:	_____
Time:	_____
Interviewer:	_____

INTERVIEWER: Numbered, bolded items are the broad, overarching questions to be asked of all respondents. Sub-questions are probes to be used in the event that the respondent a) is unable to provide a response given the original wording of the question or b) provides a specific answer that could still benefit from further probing to get more information. Not all probes will be necessary for all respondents.

<div style="background-color:orange">**Key Informant Interview Questions**</div>

I will be asking you a series of questions. Please remember that there are not right or wrong answers; I am looking for your perspectives and opinions. Please let me know if any question is unclear.

1. **Where do you work?** *[Gather full name of agency]*
   a. Tell me about the organizational structure of your agency.
   b. Where do you fit within that structure? [*Gather information about the department/unit the position is located within*].

2. **What is your title and what are your roles at this agency?**
   a. What do you do on a day to day basis?
   b. What position do you report to (who is your supervisor)?

3. **What is your agency's mission (or purpose)?**
   a. What is the mission (or purpose) of your department/unit specifically?

4. **What are the most important goals your agency works to achieve?**
   a. How does your agency try to achieve these goals?

5. **What types of funding support your agency?**
   a. How adequate is this funding for working toward your agency's goals?
   b. If you had additional funding, what else would you be able to do?

6. **Who does your agency serve?**
   a. Does your agency have any restrictions on who you can and cannot serve?
      i. Are there any boundaries to the area served by your agency?
   b. *Do you serve clients who are Native American? Who are members of the Tribe? [probe to understand how they identify clients as NA and/or tribal members]*

7. **In what ways are the Tribe's culture, values, or traditions honored in the work of your agency?**
   [Probe regarding work with specific departments, e.g. Traditional Medicine and cultural programs]

8. **When I say "public health," what does that term mean to you? What comes to mind?**
   a. What does public health do? What is the purpose of public health?
   b. *What agencies in this community are responsible for preventing sickness, promoting health, and making sure tribal members live in a place where they can be healthy? [probe regarding the role of the tribal health center]*
   c. In what ways are public health services and medical care services different? How do they overlap?

9. *[FOR TRIBAL AGENCIES ONLY]* **What are the responsibilities of the Tribe to protect and promote the health of tribal members and their families?**
   a. What limitations does the Tribe face as leaders working to protect and promote the health of tribal members?
   b. What can't you do that would be in the best interest of members' health?

The next set of questions will help me better understand what role your agency plays in community health. You may only be able to answer some, or even none, of the following questions, and that is okay. If you can't answer a question just let me know and we will move to the next one. Also, the questions ask specifically about tribal community members. If you aren't sure how to answer a question for tribal members, in particular, just answer for the population you serve. *[HAND THE RESPONDENT THE 1-PAGE INFO SHEET ON ESSENTIAL SERVICES. In the space provided on the right of the page, write down the name of any partners or collaborators that the respondent mentions during the interview, and return to this list to ask more specific questions about these partners to complete the ecomapping portion of the interview.]*

10 Essential Services	Partners
1. [ES 1: Monitor Health Status to Identify Community Health Problems]	
I. **What information (or data) does your agency use to assess the health status of tribal members or the factors that affect their health?**	_____ _____
i. *Examples: national, state, or regional surveys done by the tribe, government or other agencies; tribal health clinic records such as RPMS system or GPRA reports; maternal child health data; public health data; etc.*	_____ _____
ii. Does your agency play a role in collecting this information? Gathering data from other places? Providing data?	_____
1. Does your agency participate in or lead community health assessment processes?	
iii. What gaps are there in the data available to your agency?	
II. **How is that information used by your agency?**	
i. *Examples: Making decisions, use of resources, prioritizing, identifying health problems, grant/funding applications, etc. (See ES5 – CHIP and other plans)*	

ii. What kinds of community health problems have been identified based on information/data? *(Transition to ES2 – Diagnose and investigate health problems)*

2. [ES2: Diagnose and investigate health problems and health hazards in the tribe]   _____

    I. **How does your agency find out about threats to the health of tribal members and their families?**   _____

        i. *Examples of ways to find out about health problems: Regular assessment, review of available data (see ES1 – Monitor health status), communicating with partners (See ES 4 – Community partnerships)*   _____

        ii. *Examples of health problems: potential threats to health, widespread lack of insurance coverage, flu outbreak, water contamination, spike in rates of drug use, dip in rates of breastfeeding, etc.*   _____

        iii. Think about a recent health problem – how did you find out about it?

        iv. What health problems are more challenging to identify?

    II. **How does your agency respond to situations/problems that threaten the health of tribal members and their families?**

        i. *Examples: Emergency planning, investigation, emergency response, etc.*

        ii. Who is responsible (agencies, staff, etc.) for leading the response in these situations?

        iii. How effective is your agency's response to health problems? *(See ES9 – Performance Monitoring, CQI, Evaluation)*

3. [ES3: Inform, educate, and empower people about health issues.]

    I. **What does your agency do to help raise awareness about making healthy choices among tribal members?**   _____

        i. *Examples: health education; community forums; tribal newsletters; media such as TV, radio, billboards; social media (Facebook, twitter, etc.); email; flyers posted in the health center*   _____

        ii. What methods seem to reach people best? Seem to be most effective?   _____

        iii. How do you tailor your messages to tribal members?   _____

    II. **What types of health information does your agency share with tribal members and their families, and how is this done?**

        i. *Examples: upcoming health fairs, screenings, and events; programs and services; tips for prevention; data reports*

        ii. What health topics are covered most in this communication?

4. [ES4: Mobilize community partnerships to identify and solve health problems.]   _____

    I. **How do you work with other agencies and community groups on efforts to improve community health?** *(Make detailed notes for Ecomapping)*   _____

     i. *Examples: leading or participating in community health*   _____
      partnerships and coalitions, providing technical assistance
      on community engagement, communicating with   _____
      governing entities or advisory boards
     ii. Types of partners   _____
     iii. Types of health topics/problems
     iv. What partnerships are most effective? Why?
     v. Who do you work with most?
     vi. What other partnerships are needed to improve
      community health?

5. [ES5: Develop policies and plans that support individual and community
  health efforts.]   _____

   I. **What plans does your agency work with to protect and promote**
    the health of tribal members and their families?   _____
     i. *Examples: Community health improvement plan, strategic*
      plan, all-hazards emergency operations plan   _____
     ii. What topics, settings, or activities?
     iii. Who is involved?   _____
     iv. What is the process for developing/implementing such
      plans and policies?   _____
       1. Communication
       2. Documentation
       3. Stakeholder considerations
       4. Specific tools—MAPP, CHANGE, ITCA Tribal
        Community Health Assessment for Public Health
        Accreditation; Community Toolbox
       5. Revisions and updates
       6. Monitoring progress
     v. If no, what types of plans are needed?
   II. **What policies does your agency work on to protect and promote**
    the health of tribal members and their families?
     i. *Examples: statutes, regulations, rules, executive orders,*
      ordinances, case law, and codes in your agency's
      jurisdiction
       1. *Public health laws: Environmental public health*
        (food sanitation, lead inspection, drinking water
        treatment, clean air, waste-water disposal,
        animal/vector control), infectious disease
        (outbreak investigation, required newborn
        screenings, immunizations, infectious disease
        reporting requirements, quarantine, tuberculosis
        enforcement, STD contact tracing), chronic disease
        (sales of tobacco products to youth, smoke-free
        ordinances, adoption of bike lanes), and injury
        prevention (seat belt laws, helmet laws, and speed
        limits), worksite breastfeeding policies.
     ii. What topics, settings, or activities?
     iii. Who is involved?

          iv. What is the process for developing/implementing such policies?

                1. Communication
                2. Documentation
                3. Stakeholder considerations
                4. Specific tools
                5. Revisions and updates
                6. Monitoring progress

          v. If no, what types of policies are needed?

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6. [ES6: Enforce laws and regulations that protect health and ensure safety.]

      I. **What health-related laws or policies does your agency help monitor?**   _____

          i. *Monitoring – review, revise, update*   _____

          ii. *Examples: statutes, regulations, rules, executive orders, ordinances, case law, and codes in your agency's jurisdiction*   _____

                1. *Public health laws: Environmental public health*   _____

                    (food sanitation, lead inspection, drinking water treatment, clean air, waste-water disposal,   _____
animal/vector control), infectious disease (outbreak investigation, required newborn screenings, immunizations, infectious disease reporting requirements, quarantine, tuberculosis enforcement, STD contact tracing), chronic disease (sales of tobacco products to youth, smoke-free ordinances, adoption of bike lanes), and injury prevention (seat belt laws, helmet laws, and speed limits), worksite breastfeeding policies.

          iii. What is your agency's level of involvement?

          iv. What other agencies are involved? *(See ES 4 – Community partnerships)*

     II. **What does your agency do to make sure that laws or policies that impact health are followed [enforcement and compliance]?**

          i. *Examples: Provide community education/media, public access to information about laws, notify relevant parties of violations*

          ii. What partners does your agency work with to enforce health-related laws or policies?

---

7. [ES7: Link people to needed personal health services and assure the provision of health care when otherwise unavailable.]   _____

      I. **What does your agency do to make sure people get the health services they need?**   _____

          i. *Examples: identify populations with barriers to healthcare services (such as low-income or other disadvantaged groups); identify gaps in access; provide outreach,*   _____

education or transportation services; link specific communities/populations to available services; collaborate with partners to reduce barriers (See *ES 4 – Community partnerships*); use culturally competent initiatives to increase healthcare access

       ii. What services does your agency connect community members to?

           1. What partners provide these services? *(See ES 4 – Community partnerships)*

      iii. Where do gaps exist in access to health care services?

           1. Populations, geographic areas, specific services

           2. How do you determine where gaps may exist?

II. **What health services does your agency offer to tribal members and their families?**

    i. *Examples of health care services: tobacco cessation, health screenings, chronic disease treatment (heart disease, diabetes, cancer), traditional medicine, nutrition services, communicable/infectious disease treatment, behavioral health, weight/obesity assessment pharmacy, substance abuse, emergency services, prenatal care, urgent care; mental health, psychiatry, psychology, occupational medicine, ambulatory care, dental treatment, HIV/AIDS, STDs treatment*

8. [ES8: Assure a competent public health and personal healthcare workforce.] _____

    I. **How does your agency ensure that staff members have the training or education they need for their job [health-related aspects of their job]?** _____

      i. *Examples: Partnering with local colleges or training programs, actively recruiting college students and recent grads with public health expertise* _____

      ii. What training or education do you have for your job? _____

           1. Did your training/education prepare you well for current job duties? _____

           2. Do you feel that you need any other training or education for your job?

9. [ES9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services.] _____

    I. **How does your agency know if your programs and services are working well?** _____

      i. How does your agency determine whether it is meeting its goals? _____

      ii. How does your agency evaluate its programs and services?

           1. *Examples: Evaluation required by program funders, evaluating community health programs, customer satisfaction surveys, focus groups or interviews with program participants* _____

        iii.   What actions do you (your agency) take in response to performance monitoring and evaluation results?

II.   **How does your agency work on improving your programs and services?**
      i.   *Examples: Performance management, quality improvement, quality improvement plan*
      ii.   How does your agency get better at its work?
      iii.   What performance management or quality improvement practices does your agency use?
           1.   *Definitions:*
               a.   *Performance management is the practice of using data to improve performance.*
               b.   *Performance management systems ensure that progress is being made toward department goals by systematically collecting and analyzing data to track results to identify opportunities and targets for improvement.*
               c.   *Quality improvement in public health is the use of a deliberate and defined process to improve performance (to meet your performance targets).*

10. [ES10: Research for new insights and innovative solutions to health problems]   _____

   I.   **How does your agency decide which approaches, interventions, or strategies to use to promote the health of tribal members and their families?**   _____
      i.   *Examples: evidence-based strategies, best practices, curricula, other tribes' recommendation, existing models/frameworks/interventions*   _____
            _____
      ii.   What makes you trust that an approach is effective before you start using it?   _____
   II.   **Does your agency share lessons learned to improve your work or help other programs/communities improve?**
      i.   *Examples: evaluating programs and using results to refine approach, presenting at conferences or trainings to share innovative and effective approaches with other tribes and communities, relationships/partnerships with academic institutions or research centers, communicating results of interventions to practitioners and general community, providing technical assistance to partners/other communities to implementing effective interventions or using best practices*
      ii.   What new or innovative approaches do you use? Have you shared?

11. **Thinking about all the services you've described, to what extent does this agency have what it needs to deliver these services well?**
    I. How do aspects of the general community environment affect your ability to deliver services? By "environment" we mean things like the physical environment, economics, politics, and social issues.
    II. How does the community infrastructure help or hinder your ability to deliver services? By "infrastructure" we mean things like laws, policies, finances, services systems, and partnerships.
    III. How do community resources help or hinder your ability to deliver services? By "resources" we mean things like human resources, leadership, community knowledge, community groups, or funding.

12. Thinking about everything we've talked about so far today, what people or organizations do you think are most influential when it comes to protecting and promoting the health of tribal members and their families?

13. What do you think are the most important things that need to be done to make the Tribe healthier?

FOR TRIBAL LEADERS/DECISION MAKERS
14. As a tribal leader, what do you think your role should be in helping the Tribe fulfill the essential public health services?

15. What impact, if any, do you believe self-determination has on health and wellbeing for the Tribe?
    I. What role does tribal self-determination play in promoting good health for tribal members?
    II. What constraints and opportunities does self-determination create for the Tribe related to health of tribal members?

16. What factors limit or support the Tribe's ability to fully exercise self-determination for tribal member health?
    I. What policies are a factor?
    II. What systems or structures are a factor?
    III. What is the Tribe able to do?
    IV. What is the Tribe not able to do (that is desired)?

Key Informant Ecomap Protocol

1. Explain the ecomapping process to the interviewee.
    a. Show the interviewee the legend and explain the different symbols and lines.

2. Sketch the ecomaps in collaboration with the interviewee.
    a. Begin with the partners listed during the interview. Discuss the current relationships that the interviewee has with other individuals from outside organizations/agencies.
        i. Represent each individual as a circle on the ecomap. Under the individual's name label and list:

a. T - title
                    b. S – supervisor
                    c. O – organization
             ii.   Have the interviewee rate the strength of their relationship on a scale of weak to
                    strong.
            iii.   Draw a line from the individual to the interviewee; the thickness of the line and
                    characteristics of line will depend on the strength of the relationship. Refer to the
                    legend.
            iv.   Ask if the relationship has any conflict. If so, indicate this (refer to legend).
             v.   Draw arrows at the ends of each line to signify the direction that communication
                    flows.
            vi.   Add symbols to each relationship accordingly ($ for financial resources, % for FTE, @
                    for supplies/equipment). Place the symbol closest to the individual who receives that
                    resource. If they both receive a resource, place a symbol at both ends of the arrow.
           vii.   Add numbers along each line to represent the 10 Essential Services that they work on
                    with each individual.

3. Review the sketch of the ecomap with the interviewee and discuss the accuracy of the diagram.
       a. Determine if any edits are needed.
       b. Ask for thoughts and impressions about the diagram.

4. If by phone: Send them the ecomap template before the interview. After completing the ecomap,
     send it to them (by email or fax) so they can review it. If necessary, schedule a follow-up
     conversation to revise the ecomap.

Key Informant Ecomap Introductory Script

We are going to discuss the partnerships that you have with other people at agencies and organizations
involved in delivering the 10 Essential Services in Public Health. The purpose of this activity is to create a
picture of the network that you exist within related to delivery of the 10 Essential Services.

We are going to focus our discussion on how individuals at other agencies interact with and exchange
resources with you. While we talk, I will be creating an ecomap to represent the network that you
describe to me. I will draw a circle in the middle to represent you, and draw additional circles around
you to represent the people in your network. The lines I draw connecting you to others represent the
strength of the relationship and the flow of resources. Today, we will be using these symbols to create
the ecomap (show interviewee the ecomap Legend).

The questions that I will be asking you are subjective. Please give us your honest opinion about the
nature of the relationships that exist between you and the individuals at each agency. There are no right
or wrong answers. Feel free to interrupt the drawing at any time to provide your input. Remember that
the information you share today will be summarized and combined with the results of other ecomaps
before it is shared with anyone outside of the research team, and all of the information you provide will
be kept confidential. Once the ecomap has been roughly sketched, we will review it for accuracy and
clarity. [*If phone interview*: *Once the ecomap has been sketched, I will send it to you to review for
accuracy and clarity. We can arrange another time to speak by phone if it needs to be revised.*]

Do you have any questions before we begin?

1. We are going to start by sketching an ecomap of your current network that exists. The center circle represents you. I am going to draw circles around the inner circle to represent each individual from agencies in your network.
2. Let's begin by reviewing the list of people and organizations that I created during the interview. Which of the following people/organizations do you PERSONALLY work with? [*Probe for individuals if only given organization during interview; if they work with many people at one agency ask them for the 3 they work with the most; probe for organization if only given person during interview*]. For each individual (circle), we are going to talk about the strength of your relationship with them, your communication with them, and the flow of resources as well as the contributions they make as an agency or organization toward the Ten Essential Services.
   [For each person]:
   a. What is this person's title? Who is his/her supervisor? [*if they do not know the supervisor, ask for the supervisor's position; ask for each person as you go through the list*]
   b. Would you describe the relationship that you have with [person] as weak, average, or strong? Is there any conflict in this relationship?
   c. What direction does communication travel? Do both of you communicate with each other, or does only one person communicate with the other?
   d. What direction do resources (staff time, money, supplies/equipment) flow? Do you share resources with each other equally, or do you primarily give or receive the resources?
   e. Looking at the list of Ten Essential Services in Public Health provided to you, which of these services do you work on with this person?
3. Who else is part of your network? What organization or agency in your community (tribal or otherwise) are they a part of? [*repeat 2a-e for each person*]
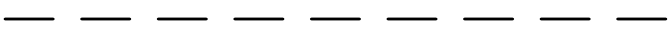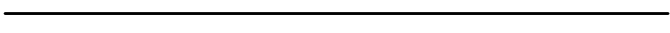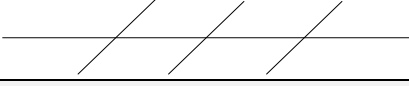
[IN PERSON INTERVIEW ONLY]

4. Let's look at the diagram and see if there is anything that we need to revise or anything else that we need to add.
   a. Looking at the ecomap of your network, are there any additional partnerships with individuals that need to be added to your personal network?
   b. Are the relationships accurately represented?
   c. Is there any additional (anecdotal) information that I need to note?
5. Thinking about the ecomap that we have created, what are your impressions of the network that you exist within?
6. Are there any additional thoughts or ideas that you would like to share?

[TELEPHONE INTERVIEW]

3. Are there any additional thoughts or ideas that you would like to share?

4. I will send you a copy of the ecomap to review. When you look at the ecomap, think about whether there are any additional partnerships with individuals that need to be added to your personal network. Also think about whether the relationships are accurately represented and if there is any additional information that should be included.

Ecomap Legend	
Strength of relationship	Lines connecting the center circle and outer circles
Weak	▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬ ▬
Average	─────────────────
Strong	━━━━━━━━━━━━━━━━━
Conflicting relationship	⟋⟋⟋
Communication	Arrows at the end of connecting lines that show direction of communication
	One way → Reciprocal ←→
Resources	Symbols that accompany arrows that show what resources are exchanged
Staff/volunteer time	%
Supplies and equipment	@
Financial support	$

Essential Services Provided (What essential services do you work on together?)	Numbers correspond to each Essential Service
Monitor health status to identify community health problems.	1
Diagnose and investigate health problems and health hazards in the community.	2
Inform, educate, and empower people about health issues.	3
Mobilize community partnerships to identify and solve health problems.	4
Develop policies and plans that support individual and community health efforts.	5
Enforce laws and regulations that protect health and ensure safety.	6
Link people to needed personal health services and assure the provision of health care when otherwise unavailable.	7
Assure a competent public health and personal healthcare workforce.	8
Evaluate effectiveness, accessibility, and quality of personal and population-based health services.	9
Research for new insights and innovative solutions to health problems.	10

#9. Ecomap Diagram Template

Strength	
Weak	– –
Average	————————
Strong	▬▬▬▬▬▬
Conflicting	—/—/—/—
Communication	
	→ ◄►
Resources	
Staff time	%
Supplies/equip	@
Financial	$
Essential Services	
Monitor health	1
Diagnose/Investigate	2
Inform/educate/empower	3
Mobilize partnerships	4
Develop policies	5
Enforce laws	6
Link to/provide care	7
Assure competent workforce	8
Evaluate	9
Research	10
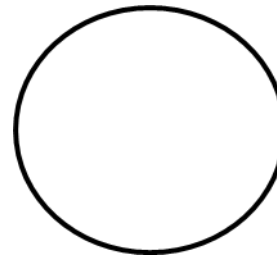
#10. Focus Group Protocols

Introduction and Informed Consent

Before we begin, I just need to check that everyone is at least 18 years old.

Hello, I am [facilitator's name], and this is [assistant name] and we are from the [agency]. We work on a research project funded by [funder] that aims to understand how the Tribe organizes its community health system and works with other agencies to protect and improve the health of people in the tribal community. We are working to understand how you think about health and wellness, what people in your community do to get and stay healthy, and what you think about current efforts to promote health and wellness in the tribal community.

Your participation in this conversation is totally voluntary. You can stop participating at any time, and decide not to answer any question. Should you choose at any time to quit participating in the discussion it will not affect you in any way or impact the services or benefits you may be otherwise eligible to receive through The Tribe Health Services. We are asking you to give verbal consent to participate rather than written. Your continued participation in the focus group will be considered your consent. Please feel free to leave at any time if you wish to no longer participate. The chances of facing physical, psychological, or social risks from participating in this study are minimal. It is possible that the focus group will discuss topics that you find upsetting. Also, even though we will keep all information confidential, we cannot guarantee that other participants in this focus group will not share information discussed today. While there are no direct benefits to you for taking part in this study, we believe that members of the the Tribe community may benefit from what we learn through this study because it could be used to create or improve programs or services that help make The Tribe members healthier.

We hope that each of you will share your experiences and opinions with us openly. We will be audio recording the group discussion as well as taking notes on the computer. The recording and typed notes will be kept confidential by project staff. We are asking that you not share information discussed today with others outside of the focus group.

After today, the conversation on the recording will be typed up and then destroyed. No names, even should you mention each other's names during the discussion, will be included in the transcripts or the report. Only agency staff will have access to the recordings and transcripts of the focus group. We may use quotes from this interview in reports or other publications. Please let us know at any time if you are concerned about the discussion being recorded or if you have questions about confidentiality. If you chose to withdraw from the study, we will ask your permission to keep any of these documents or audio files that we have collected. If you wish for us not to use these materials, we will eliminate your information from the focus group transcripts.

This focus group will take about 1 hour today. In order to thank you for your time and any costs associated with being here today, you received a $20 gift card before the focus group. Your active participation in the discussion will help us to understand topics such as how community members define health and wellness, how people in this community get or stay healthy, and how tribal organizations work together to better community health.

We will ask the group a series of questions to keep the discussion going. Please remember that there are not right or wrong answers; we are looking for your perspectives and opinions. All comments are welcomed. Please let me know if any question is unclear.

Is there anything that you would like me to explain more clearly?

Answer any questions. If you don't know the answer, direct them to the contacts on the informed consent handout.

Should you have questions after we are done here today about your rights as a participant in this study, please contact Shannon Laing, MPHI Project Coordinator, whose contact information is on the informed consent handout. You have also received contact information on your handout for NAME in case you have any questions about your rights as a research participant.

Group Name: _____

Date: _____

Time: _____

Location: _____

 # Participants: ___   (__male) (___female)

Facilitator: _____

Recorder: _____

Overall – All Participants (Adult community members)

Intro: We will start by going around the circle and asking each person to <u>introduce</u> him or herself. Please share your <u>name</u>, or how you would like us to refer to you, and a <u>little about yourself</u>.

Begin Recording

1. **In your own words, what do you think it <u>means</u> to be healthy?**
    a. **Where, or from whom, did you <u>learn</u> about what it means to be healthy?**
    b. **How do your personal cultural beliefs, traditions, or ceremonies shape your ideas about what it means to be healthy?**

    > *Focus: Understanding participants' own <u>definitions</u>/understanding of health.*
    >
    > *Tips: This is a good place to get at <u>similarities and differences</u> between participants – after several people have answered, ask if anyone thinks about health differently. You can <u>refer participants back</u> to their answers to this question when asking about health or being healthy.*

2. **What are the most <u>important</u> health issues facing the The Tribe community?** *<u>What is it about [issue] that makes it one of the most important?</u>*

    > *Focus: Getting a sense of which health issues are most important to community members.*
    >
    > *Tips: Get a sense of <u>why they think these issues are the most important</u> (most widespread, hardest to address, etc.).*

3. **Are there some <u>groups</u> of people in this community who experience <u>more</u> health problems than others? If so, tell me about them.** *<u>Why do these groups experience more health problems</u>?*
    a. **What is being done to help these groups with their health problems?**

    > *Focus: Knowledge and perceptions of how certain groups within The Tribe experience more health problems than others (disparities in health status) and efforts to address them.*

4. **Currently, what groups in The Tribe, if any, are not getting their health needs met?**

    > *Focus: Again, this is about health disparities, but rather than being about health problems/status, it is about <u>NOT getting the SUPPORT necessary to be healthy</u> – for example, access to care.*
    >
    > *Tips: They may have already talked about this some in the previous question – this is a chance to get more information. If so, you can say "we've talked about this a little already, but…"*

5. **What aspects of this community <u>help</u> The Tribe families lead a healthy way of life?**
[By <u>healthy way of life</u> we mean things such as walking more, eating more fruits and vegetables, avoiding eating unhealthy food, getting the healthcare that you need, avoiding exposure to smoke; By <u>aspects of the community</u> we mean things like sidewalks, farmers markets, access to traditional medicines or traditional healing/ceremonies]

> *Focus: Aspects of the community environment that affect health positively.*
>
> *Tips: Use the prompts if participants seem like they don't understand the question (e.g., not answering, giving answers that miss the point). The prompts provided are some possible examples, but be open to whatever they consider an aspect of the community, as long as <u>it gets at environment and goes beyond health care</u>.*
>
> *Make sure they give <u>specific examples</u>, like in the prompt (e.g., farmers markets).*

6. **What aspects of this community may <u>keep</u> people from being as healthy as they could be?**
[For example: not enough sidewalks to walk to places in community, too many unhealthy foods offered at gatherings, historical trauma, loss of traditions, etc.]

> *Focus: This is the flip side of the previous question. The two questions together should give a thorough explanation of <u>community/environmental factors affecting health</u> positively and negatively.*
>
> *Tips: Again, use the prompt as needed and make sure they give <u>specific examples</u>.*

7. **How does The Tribe help community members be healthy?** *[For example, offers health screenings, keeps parks clean, makes fresh produce available through farmers' market]*

   a. **How do tribal policies and laws support health and wellness of tribal members?**
   b. **How are cultural beliefs and traditions for health honored?**

> *Focus: Knowledge and perceptions of <u>things (services, policies, laws) The Tribe does</u> to promote health.*
>
> *Tips: Make sure participants give specific examples of services, policies, laws, and examples of <u>how cultural beliefs and traditions are honored</u>, like in the prompt.*

8. **Who do you USUALLY turn to when you need advice or information about your health?**

   a. **Who or what do you think are** *GENERALLY* **good sources of information about health issues?** *(…even if you don't regularly access them)*

> *Focus: The first part of this question is getting at <u>who they turn to most of the time</u>. The second part is a chance to get a more complete list of all the different sources of <u>information they generally trust</u>.*
>
> *Tips: Can include things other than people (certain websites or magazines). Make sure they give specific examples.*

9. **What health programs or resources are available for The Tribe members and their families? For instance, fitness programs, support groups, community health coalitions, or school health programs?** *<u>(List of all the services they know about)</u>*

    a. **How <u>well</u> do these programs help support good health for tribal members?**
        <u>(Evaluation of the services mentioned, and WHY good or bad)</u>
    b. **What programs or resources have <u>you</u> participated in or used?**
        <u>(Services they have used personally)</u>

> *Focus: Knowledge and perceptions of programs and resources that exist within the community.*
>
> *Tips: Make sure participants give specific examples of programs and resources and are explaining why they think they are good or bad.*

10. How do you <u>find out about</u> programs, services, and opportunities to improve health?

> *Focus: Understanding <u>how information is spread</u> and which methods are most effective.*
>
> *Tips: Probe with the services mentioned in question 7 or programs and resources mentioned in question 9, if needed. You can say, <u>"So how did you find out about X?"</u>*

11. How do the Tribe and community agencies help people <u>access</u> health programs and resources? *<u>How effective are they at helping people access these programs/resources?</u>*

> *Focus: Understanding <u>the extent to which</u> the tribe and agencies are <u>helping people access programs</u> and resources and <u>how effective they are</u>.*
>
> *Tips: Again, probe with the things mentioned in questions 7 and 9, if needed. You can say, "How does the Tribe help people access X?"*

12. What <u>barriers</u> are there to using existing health programs and resources? *<u>(Generally)</u>*
    a. **What keeps <u>you</u> from using these programs and resources, if anything?** *(Personally)*

> *Focus: The first part of this question is asking for <u>barriers that exist generally</u> within the community, while the second part is asking for things that keep the focus group participants from using programs personally (<u>barriers participants have experienced</u>).*
>
> *Tips: Make sure they give <u>specific examples</u> for both parts (e.g., they don't have a way to get there).*

13. What, if any, barriers keep The Tribe members from getting needed <u>medical care</u>? *<u>(e.g. care from a doctor or other provider)</u>*

> *Focus: Similar to the previous question, but about <u>care from a doctor or other provider</u>.*
>
> *Tips: Again, make sure they give <u>specific examples</u>.*

14. What opportunities are there for community members to <u>have a say</u> in what health programs, services, and resources are provided for the community?

> *Focus: Understanding the extent to which <u>community members are/feel included in program/service planning.</u>*
>
> *Tips: Probe with community programs mentioned earlier in questions 7 and 9, if needed.*

15. What more could the Tribe do to create a healthier community?

        a. What else is needed to help people who experience poor health?

        b. What changes are needed to prevent poor health and chronic disease?

> *Focus: Understanding <u>gaps in what the Tribe is currently doing</u>, with a focus on both treatment and prevention.*
>
> *Tips: Make sure participants are giving <u>specific examples</u> (e.g., types of programs, programs for certain issues).*

<u>PROBES</u>

- Can you give me an example?
- Can you tell me about a time that X?
- Is there a specific incident of X that stands out in your mind?
- Could you walk me through the last time that X?

Supplemental Questions—Parents

These questions offer a chance to talk about any issues specific to being a parent. Some of these things may have already come up in the focus group. This is a chance to ask about anything in addition, or for more information on anything already discussed. You can say, "we've talked about this a little bit already, but…"

1. ***As a parent*** **in this community, what health issues are most important to you, personally?**
   a. **What concerns do you have about raising healthy children in this community?**

Focus: Getting a sense of which health issues are most important to parents, in particular. The "health issues" referred to in this question can include both health problems and promoting health. The second part is a chance to discuss community/environmental factors affecting children's health in particular.

Tips: Get a sense of why they think these issues are the most important to parents.

2. **What programs or services are available specifically to help kids in Tribe be healthy and happy?**
   a. **How do the Tribe and other agencies in the community help parents support good health and development for their children?**
   b. **What else could be done to better support parents to raise healthy children, if anything?**

Focus: Knowledge and perceptions of programs and services that are designed specifically for children and how well the Tribe and other agencies address child health.

Tips: Make sure participants are giving specific examples of programs and services, as well as suggestions for other things the Tribe could do.

#11. Qualitative Analysis Coding Scheme

Name	Description
PUBLIC HEALTH DEFINITION AND PURPOSE	
Community health and wellness	Public health focuses on community health and/or community wellness.
Informs	Public health focuses on informing people about health
Other	Any other important statements about the definition and purpose of public health that are not captured in the other codes.
Prevention	Public health focuses on prevention, as opposed to treatment
Safety net care	Any description of public health as targeting the poor or providing services to anyone regardless of their insurance or economic status.
Working together	Public health involves different organizations working together. The participant does not have to explicitly state this. This code can be used if the participant lists multiple organizations when discussing the definition and purpose of public health.
Mission	The mission of the participant's organization
Goals	The goals of the participants organization
TRIBAL RESPONSIBILITY	Codes under this heading are about the tribe's responsibility for protecting and promoting the health of tribal members
Health education	The tribe and its employees have the responsibility of providing information on health topics to tribal members
Health promotion	The tribe and its employees have the responsibility of living by example (leading a healthy life to inspire tribal members to do the same) and making health a priority topic for the tribe.
Other	Other statements about the tribe's responsibility to protect and promote health that are not captured by the other codes.
Policy	The tribe has the responsibility of setting policies that promote and/or protect health.
Service Provision	The tribe has the responsibility of providing health/medical services to tribal members.
Tribal leader responsibility	Tribal leaders' views on their responsibility for helping Sault Tribe fulfill the essential services.
Self-determination	Discussions of tribal self-determination
Key health issues	The health issues that the participant sees as most important to address or most important for making Sault Tribe healthier.
SERVICES	Nodes under this heading are about services provided by the participant's organization.
DELIVERY	Nodes under this heading are about the extent to which services are tailored to Sault Tribe's culture.
Culturally tailored	The services are culturally tailored to Sault Tribe in some way.
Not culturally tailored	The services are not tailored to Sault Tribe's culture in any way.
ELIGIBILITY	Nodes under this heading are about the eligibility criteria for receiving services from the participant's organization.

		Other	Other important statements about eligibility not captured in the codes.
		Requirements	Eligibility requirements or limitations to whom they can serve, aside from tribal membership or affiliation.
		Tribal community	Anyone within the tribal community, including family members, can be served by the organization.
		Tribal members only	Only tribal members can be served by the organization
		Whole community	The organization serves the whole community - tribal membership is not a factor.
	Gaps in services		Noted gaps in services being offered, or identified service needs
	Limitations		Discussions of how the organization is not serving who they should be or could be serving.
	Other		Other important statements about services that are not captured by the other codes.
	Types offered		Types of services offered by participant or their organizations
Integration			Statements about the system being designed so that services are connected (e.g., connections between the clinic and traditional medicine).
KEY ACTORS			The nodes under this heading are about the key actors in the ST public health system.
	AGENCIES		Nodes under this heading are about agencies such as health departments or ST health division that are most important.
		Federal	Federal agencies such as CDC, IHS, that are most important
		Local	Local agencies, such as city council, that are most important
		Other	Other important statements about agencies that are important to the system that are not captured in the other codes.
		State	State agencies, such as MDCH, that are most important
		Tier not specified	The tier of the agency (tribal, federal, state) is not specified or unclear.
		Tribal	Tribal agencies that are most important (e.g., ST health division)
	Collective responsibility		The participant says something about how the community, as a whole, has responsibility for health
	Individual responsibility		The participant says something about individual responsibility for health
	Other		Other important statements about the actors that are most important to the public health system that are not captured by the other codes.
	People		Statements about how specific people or groups (e.g., front line staff, coalitions) are most important.
	PROGRAMS		Nodes under this heading are about programs or departments that are most important. A program is any subgroup of an agency with a specific goal (e.g., community health, health center)
		Non-tribal	Non-tribal programs (e.g., WIC) are most important.
		Other	Other important statements about programs that are most important that are not captured by the other codes.
		Tribal	Tribal programs (e.g., community health, health center) are most important.
		Tribal not specified	Programs that are not specified (or clear) as tribal or non-tribal.
	Tribal nation		Tribal board or government is most important
Philosophy/view non-tribal to tribal			Statements about how non-tribal agencies view health care/public health services provided by tribal agencies

Philosophy/view tribal to non-tribal			Statements about how tribal members view health care/public health services provided by non-tribal agencies
SYSTEMS FRAMEWORK			
	Community Spirit and Culture		Any statement about the impact or role of culture, aside from statements about how culture is or is not incorporated into services
	ENVIRONMENT		Nodes under this heading are about environmental or contextual factors that impact the tribal public health system
		Economic environment	Broad economic factors, such as ses or the state of the economy
		Other	Other statements about the environment or context that do not fit in the other codes
		Physical environment	Aspects of the physical environment, such as being rural or the weather
		Political environment	Factors such as political will, board support, political agendas
		Social environment	The influence of people or groups
	INFRASTRUCTURE AND RESOURCES		Nodes under this heading are about the impact of infrastructure and/or resources on the public health system
		FUNDING-FINANCIAL	Nodes under this heading are about issues around organizational funding.
			Adequacy of funding	Whether or not the funding for the organization is adequate
			Other	Other important statements about organizational funding that do not fit in the other codes
			Sources	Sources of funding that support the organization
		HUMAN RESOURCES	The nodes under this heading are about people and management of those people within an organization
		Human resource management	The policies or practices of an organization regarding staff
		Other	Other important statements about human resources that do not fit in the other codes
		STAFFING	Nodes under this heading are about staffing issues.
			Adequacy	The adequacy of staffing within organizations
			Multiple roles	Discussions of how people hold multiple roles within the public health system (e.g., their regular position and their position in an outside group)
			Other	Other important statements about staffing that do not fit in the other codes
			Turnover	Statements about staff turnover, including discussions of how someone left a position within an organization.
		Organizational resources	Other resources not captured in the codes for funding and human resources
		Other	Other statements about infrastructure that do not fit in the other codes
ESSENTIAL SERVICES			Nodes under this heading are about the 10 essential services of public health.

ES1 - MONITOR HEALTH			Nodes under this heading are about Essential Service 1 - monitor health status to identify community health problems
	Assessment process		Looking at data on a regular basis (e.g., community health/needs assessment)
	Don't do this		The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
	Gaps in data		Data they don't have or issues they don't have data on
	Issues identified by data		Areas that have been identified as problems by data
	Other		Anything about essential service 1 that is not captured in the other codes
	Types of data		Specific sources of data (e.g., surveys, focus groups)
	Uses of data		Ways in which data that monitors health status is used. Consider double coding to another ES if the way they use the data is related to that ES (e.g., code to ES5 if they use it for planning).
ES2 - INVESTIGATE			Nodes under this heading are about Essential service 2 - diagnose and investigate health problems and health hazards in the community (e.g., outbreaks, emergencies)
	Communication of threats to health		How participants or their organizations who identify threats communicate this information. This code should be used when the participant is himself/herself communicating this information, not when they are only on the receiving end of this information.
	Conducting investigations		The participant discusses how he/she or his/her organization conducts investigations into health threats or problems
	Difficult to identify		Health problems or hazards that are difficult to identify
	Don't do this		The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
	Modes for receiving information		How the participant or his/her organization receives information about health threats or problems. Includes sources of information and modes of communication. This code is used when the participant is not the one who identifies the threat, but is instead being alerted to the threat by the person/agency who did identify it.
	Other		Other statements about ES 2 that don't fit into the other codes
	Responses to issues identified		How the participants or his/her organization responds to health threats or problems once they are identified
ES3 - EDUCATE			Nodes under this heading are about Essential Service 3 - inform, educate, and empower people about health issues
	DELIVERY		Nodes under this heading are about the details of the delivery of health education and information
		Audience	The intended audience for health education or information
		Culturally tailored	The health education or information provided is tailored to the culture of Sault Tribe in some way
		Not culturally tailored	The education or information provided is not tailored to the culture of Sault Tribe in any way
		Other	Other important statements about the details of delivery of health information/education that are not captured in the other codes
	Don't do this		The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
	Health education topics		The topics covered when educating or informing people about health
	Modes for conveying information		How health information is provided (e.g., pamphlets, health fairs)
		Most effective	The most effective methods for informing or educating people about health issues

	Other		Other important statements about ES 3 that don't fit into the other codes
ES4 - PARTNERSHIPS			Nodes under this heading are about Essential service 4 - mobilizing community partnerships to identify and solve health problems.
	CHARACTERISTICS OF PARTNERSHIP		Nodes under this heading are descriptions of the collaboration (e.g., quality, activities).
		Formal relationship	Working with others within a relationship that is documented (e.g., MOU)
		Other	Other important statements about characteristics of collaboration that are not captured by the other codes
		Sharing information	Discussions of sharing information with others
		Strength of relationship	Statements about how strong or weak a relationship/collaboration/partnership is
		Sharing resources	Discussions of sharing resources (e.g., financial, staffing, supplies, etc.) with others
	CONTEXT OF COLLABORATION		Nodes under this heading are about the context in which collaboration is occurring - where and when the participant/organization is collaborating with partners mentioned
		Committees and Coalitions	Working with others who are part of the same committees or coalitions as the participant OR working with others through one's work with committees or coalitions (regardless of the participant's own membership)
		Grant Writing	Working together on writing grants
		Other	Other important statements about the context of collaboration that are not captured by the other nodes.
		Providing Services	Working with others by providing services together or coordinating services
	Don't do this		The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
	Implementing strategies		Planned actions taken to solve specific health problems with partners
	Other		Other important statements about ES4 that don't fit into the other codes
	Partners		Who the participant mentions working/collaborating with (individuals, groups, organizations).
	Partnership needs or gaps		Partnerships or collaboration that would be beneficial but do not currently exist
	Positive outcomes		Positive things that have resulted from collaboration (e.g., things they were able to accomplish, changes they made in the community)
ES 5 - PLANS AND POLICIES			Nodes under this heading are about Essential service 5 - develop policies and plans that support individual and community health efforts
	Don't do this		The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
	Other		other important statements about ES 5 that are not captured in the other codes
	Plan process		The process used to develop the plan
	Policy process		The process used to develop the policy
	Types of plans		The type of plans that the participant mentions they or their organization works on

		Types of policies	The types of policies that the participant mentions they or their organization works on
		ES6 - ENFORCE LAWS	Essential service 6 - enforce laws and regulations that protect health and ensure safety.
		Don't do this	The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
		Educating on laws or policies	How the participant or his/her organization educates people about laws or policies that exist
		Enforcing laws or policies	How the participant or his/her organization is involved in the legal enforcement of laws or policies, such as applying fines, fees, consequences for not following policies or laws
		Other	Other important statements about ES6 that don't fit into the other codes
		Supporting compliance with laws or policies	How the participant or his/her organization helps make sure people comply with laws or policies (e.g., putting up signs)
		Types of laws or policies	The types of laws or policies that the participant or his/her organization enforces, educates on, or supports compliance with
		ES7 - LINK TO OR PROVIDE CARE	Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
		Challenges in providing services	Specific challenges to providing health care services (e.g., geography)
		Don't do this	The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
		Information on health services	Ways in which information on different health services is given to the community by participant/organization
		Other	Other important statements about linking people to care that are not captured in the other codes.
		Other linkages	Other ways in which the participant or agency links people to care and other enabling services (e.g., provides or connects to transportation, walking to another department in health center)
		People linked	Who is being provided services or being linked to services
		Referrals for services	Types of services that are being referred out (e.g., referring for specialty care)
		Referred to	Other care providers to whom participants mentioned referring patients
		Services provided	The services that are offered directly by the participant/organization
		ES 8 - COMPETENT WORKFORCE	Nodes under this heading are about essential service 8 - assure a competent public health and personal health care workforce. Only code to this node if they participant is talking about the public health/personal care workforce and training.
		Assessing workforce needs	How organization assesses who needs what development and when, as well as the needs of the organization for individuals with particular training/education
		Don't do this	The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
		How organizations support training and development	
		Needs or gaps in training	Specific types of training or education that participant identifies as being needed for the organization or staff
		Other	Other statements about ES 8 that don't fit into the other codes

	Types of education		Different formal education received as relevant to current position (e.g. formal degrees, certifications/licenses, Continuing ed. credits) or used as requirements for hiring.
	Types of trainings		Different training opportunities done by participants (e.g. webinars, conferences) or types of training used as requirements for hiring.
ES 9 - EVALUATE			Nodes under this heading are about Essential service 9 - evaluate effectiveness, accessibility, and quality of personal and population-based health services
	Don't do this		Participant/organization are not involved in this essential service (or thinks they are not). This applies to statements about any part of evaluation, performance management, or QI that they do not do. Code to this node even if they person then later
	Gaps or needs in evaluation		Programs or projects that need more or better evaluation
	Other		Other important statements about ES9 that are not covered in the other codes
	Performance measurement		Collecting information to see how they are meeting specific targets or objectives
	Performance standards		Ways in which participants/agency follows public health standards or best practices
	Programs and projects evaluated		The specific programs or projects that are evaluated
	QUALITY IMPROVEMENT		Nodes under this heading are about ways in which quality improvement (informal and formal) is being used
		Methods and tools	The specific tools, materials and processes for doing QI
		Other	Other important statements about how the participant/organization is using quality improvement.
		Projects and aims	Types of projects where they use QI and what the project seeks to improve
	Types of evaluation activities		Ways in which evaluation is done
	Uses of evaluation		How evaluation data is used
ES 10 - RESEARCH NEW SOLUTIONS			Nodes under this heading are about Essential service 10 - research for new insights and innovative solutions to health problems.
	Don't do this		The participant/organization is not (or thinks they are not) involved in this essential service. Code to this node even if they person then later describes something that does qualify as this essential service.
	RATIONALE FOR STRATEGIES USED		Why participant/organization uses the approach, intervention, strategy, etc. that they do; how they make decisions about what strategy to use
		Community fit	Strategy is selected because it provides a good fit with the community's needs, preferences
		Dictated by funding	Approaches/work is dictated by what funding (e.g., grants) is available or their funding specifies which approach/work must be used
		Evidence-based	Strategy is selected because it is evidence-based
		Other	Other rationale for choosing strategy that is not captured by other codes
		Trusted source	Strategy is selected because they trust the source or view the source as reputable
	Sharing lessons learned		Lessons shared with other people or agencies
	SOURCES OF INFORMATION		Nodes under this heading are about the sources of information that the participant/organization uses to identify approaches, interventions, or strategies

			Client feedback	Information gathered from clients/community is used as a source of information on potential approaches, interventions, or strategies
			Evidence-based	Participant specifically mentions looking for evidence-based strategies
			Individuals or groups	Individuals or groups (e.g., other tribes) are used as a source of information on potential approaches, interventions, or strategies
			Literature	The literature (e.g., journals, reports) is used as a source of information on potential approaches, interventions, or strategies
			Organizations	Organizations (e.g., CDC, IHS) are used as a source of information on potential approaches, interventions, or strategies
			Other	Other important sources of information used as a source of information on potential approaches, interventions, or strategies that is not captured in the other codes
			Research	Participant/organization conducts their own research studies to identify new approaches, interventions, or strategies
			Research partners	Who participant/organization works with on conducting research to identify new strategies
Good quotes				Particularly good quotes that we may want to use in reports.
Interesting				Any statements that are interesting for the project, but are not captured in the existing codes.

#12. Network Analysis using NodeXL

NodeXL[9] is a free, open-source template for Microsoft Excel that can be used to analyze social network data. This document provides some foundational terminology and outlines some of the analyses you can do with NodeXL. For more information, visit http://nodexl.codeplex.com/.

What is social network analysis?

- Social network analysis is the application of network science to the study of human relationships and connections.
- We can use social network analysis to learn about things such as:
  - which people are connected to one another,
  - how far apart people are within a network,
  - the importance one person within a network,
  - whether a network has smaller communities, and
  - how resilient a network is to loss of certain people or connections.
- Social network graphs are visual representations of networks. They are made up of two basic elements:
  - Vertices – the units that are connected (e.g., people, organizations), also called nodes.
  - Edges – the relationships between vertices.
    - Edges can represent a variety of relationships (e.g, formal relationships like MOUs, email exchanges, Facebook friends, Twitter @replies).
- In NodeXL, you can assign attributes to edges (e.g., strength of relationship) and vertices (e.g., organizational sector).
- Network metrics provide measurements of social networks.

Network Metrics [Graph Metrics -> Overall Graph Metrics]

- NodeXL can calculate metrics that describe a network as a whole.
- Connected Components
  - Vertices that are connected to each other, but disconnected from other parts of the network. Can be important for seeing how different parts of a system are disconnected. This disconnect is a structural hole.
  - Can get metrics for the largest connected component (number of vertices and edges).
- Density
  - Level of interconnectedness (# of relationships present divided by the total # of possible relationships).

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[9] Smith, M., Milic-Frayling, N., Shneiderman, B., Mendes Rodrigues, E., Leskovec, J., Dunne, C., (2010). NodeXL: a free and open network overview, discovery and exploration add-in for Excel 2007/2010, http://nodexl.codeplex.com/ from the Social Media Research Foundation, http://www.smrfoundation.org

Vertex-specific metrics [Graph Metrics]

- NodeXL can calculate metrics for individual vertices.
- Degree centrality – count of total number of connections for a vertex.
  - In-degree – number of connections that point inward toward a vertex.
  - Out-degree – number of connections that originate from a vertex and point outward.
- Geodesic distance – shortest path between two vertices. NodeXL can calculate maximum and average.
- Betweenness centrality – how often a given vertex is on the shortest path between two vertices, or serves as a bridge.
- Closeness centrality – average distance between a vertex and every other vertex reachable in the network (in NodeXL, a small closeness centrality means that a vertex is closely connected to others in the network).
- Eigenvector centrality – measure of the importance of a vertex in a network, measured by looking at the degree centrality of the vertices to which a vertex is connected (high if a vertex is connected to a vertex that is connected to many others).
- Clustering coefficient – density of a 1.5 degree egocentric network. An egocentric network is a network of individuals who are connected to a specified person. So, a 1.5 degree egocentric network would be how many of that person's connections are connected to one another (e.g., how many of your friends are friends).

Visualization

- NodeXL provides a variety of options for changing the way your network graph appears. Some of these options also provide ways to change which nodes or edges are included in network metrics.
- Manually move vertices by clicking and dragging. Move several at once by drawing a box around them or holding CTRL when clicking.
- There are several visualization options. Each of these can be connected to values of attributes [Autofill Columns].
  - Color of vertices
  - Color of edges
  - Size of vertices
  - Width of edges
  - Opacity of edge
  - Opacity of vertices
  - Vertex shape
  - Visibility of vertices
  - Visibility of edges
  - Tooltips – labels that only show up when you mouse over a vertex
- When you autofill visibility, you can open "Visibility Options" and set the visibility to "Skip" those that don't meet certain criteria. When you do this, those vertices that are not visible are also not

included in calculations of graph metrics. This allows you to compare portions of the overall network graph.

- You can filter [Dynamic Filters] by any property or attribute in the spreadsheet. If you want to filter by more than one at once, you have to create a new attribute that represents that relationship (a and b, a or b, etc.).
  - o You can also do this by autofilling visibility with the attribute of interest.
- Subgraphs – create egocentric network graphs for each vertex in the network.
  - o Subgraph Images -> choose level of adjacent vertices (1.5 is one person's contacts and connections between them; 2 is contacts of contacts) -> check boxes for "select the vertex" and "select the vertex's incident edges."

Groups

- NodeXL can use an algorithm to find clusters/groups that occur in the network [Groups -> Group by cluster; Groups -> Group by motif].
- You can also manually enter data into the Groups and Group Vertices worksheets or create groups based on vertex attribute or connected component [Groups -> Group by vertex attribute; Groups -> Group by connected component].

Resources

- NodeXL website
  - o http://nodexl.codeplex.com/
  - o Download the software for free
  - o Browse publications
  - o Access the discussion boards where users can post questions for the software creators and other users.

- NodeXL book
  - o Hansen, D., Shneiderman, B., & Smith, M. A. (2010). *Analyzing social media networks with NodeXL: Insights from a connected world*. Morgan Kaufmann.

- Free courses on network analysis from Coursera
  - o Social Network Analysis (University of Michigan): https://www.coursera.org/course/sna
  - o Networked Life (University of Pennsylvania):https://www.coursera.org/course/networks
  - o Social and Economic Networks: Models and Analysis (Stanford University): https://www.coursera.org/course/networksonline

#13. Tribal Codes, Laws, and Resolutions Spreadsheet

Article #	Title	Date	Purpose/Goals	Related agencies
Tribal public health policies and laws				
Tribal laws and policies with health implications				
Non-health laws and policies				