GUAM DEPARTMENT OF PUBLIC HEALTH & SOCIAL SERVICES

COMMUNITY HEALTH ASSESSMENT PLAN

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I. INTRODUCTION

In 2010, the Guam Department of Public Health and Social Services (DPHSS) received a grant from the Centers for Disease Control and Prevention under the auspices of the National Public Health Improvement Initiative (NPHII). NPHII is a national initiative to improve the performance of public health departments (state, local, tribal and territorial) by building and implementing capacity to evaluate the effectiveness of their organizations, practices, partnerships, programs and use of resources through performance management. As a NPHII recipient, Guam DPHSS has dedicated funds to conduct a comprehensive community health assessment. Red Star Innovations was contracted to conduct the pre planning and readiness phases of a Community Health Assessment (CHA), and provide a plan for implementation.

Community Health Assessment (CHA) is a critical public health function and a national strategic priority for territorial, tribal, states and local health departments. Public health accreditation, which launched in September 2011, provides a set of standards and measures by which health departments can systematically strengthen their health system and raise the level and quality of services it provides to the community. The Public Health Accreditation Board (PHAB), the national accrediting body for public health accreditation, has identified Community Health Assessment as one of three prerequisites for public health accreditation, followed by a Community Health Improvement Plan and an Organizational Strategic Plan.

Community Health Assessment

CHA is defined in many ways; however, most definitions describe it as a collaborative *process* that includes regular and systematic collection, analysis and dissemination of information on community health status to inform priority setting and health improvement planning. According to the PHAB, a CHA is defined as follows:

> *" A collaborative process of collecting and analyzing data and information for use in educating and mobilizing communities, developing priorities, garnering resources, and planning actions to improve the population's health. The development of a population health assessment involves the systematic collection and analysis of data and information to provide the health department and the population it serves with a sound basis for decision-making and action."*

CHA typically includes a variety of data sources and methods as means for telling a more complete story about specific health issues. It provides information about community health status, describes factors that contribute to health challenges, prioritizes areas of health

improvement, and identifies resources to mobilize to address them. A CHA will often explore community health more broadly and typically, answer the following questions[1]:

- What are the health concerns in a community?
- Why do health issues exist in a community?
- What factors create, influence or determine the health concerns?
- What resources are available to address the health concerns?
- What are the health needs of the community as a whole?

Public health accreditation requires documentation and evidence that comprehensive, broad-based data and information was collected from a variety of sources. Sources may include federal and local data; data from hospitals, healthcare providers, schools, academic institutions, and other Guam governmental departments (education, social services, housing). Examples of the health categories often covered in a CHA are provided in Table 1 found below.

TABLE 1. Health Categories

HEALTH CATEGORY	EXAMPLES
Demographic Information	Population size, age and gender distribution, languages spoken
Socioeconomic	Income and education levels, family size, employment
Quality Of Life	Satisfaction with healthcare services, availability of childcare, civic engagement and volunteerism, family relations, elder care
Behavioral Factors	Physical activity, commercial tobacco use, nutrition
Environment (Including the Built Environment)	Outdoor and indoor air quality, land use, radiation, hazardous materials; Built environment can include areas for physical activity, safe roads, sidewalks
Morbidity and Mortality	Rates of illness or injury, rates of death by illness or injury and distribution by age, gender or community
Social Determinants of Health	Access to care, economic and social conditions that impact individual and group differences in health

[1] National Association of County and City Health Officials. *Community Health Assessment & Improvement Processes.* http://www.naccho.org/topics/infrastructure/CHAIP/chachip-online-resource-center.cfm. Accessed April 3, 2012.

Benefit of Conducting a CHA

A CHA is a beneficial process because it can lead to improved understanding of community health issues and inform strategic action, program development, resource allocation, and evaluation. Other important benefits include the use of baseline data to track and identify important trends on significant health issues among the population over a period of time. Tracking health conditions over time can assist with the evaluation or assessment of health prevention or intervention program effectiveness and impact. In addition, CHA results can also be used to substantiate community need based on current data in funding applications to address health priorities.

Potential Risk and Challenges

Collecting health data carries with it certain risks to both individuals and communities, and therefore, it is critical to obtain support from policy makers, health department leadership and/or the community at-large to ensure neither is harmed. Respect for policies and protocols regarding data collection and reporting ensure that high ethical safeguards are maintained.

II. BACKGROUND

There are a number of models and approaches to conducting a CHA. Determining which one is best suited depends largely on the purpose and objective for conducting the CHA. As mentioned in the previous section, public health departments conduct CHAs to inform program and services planning, prioritize resource allocation, policy development, assess health status and evaluate improvement in health outcomes over time. Whichever model or approach is taken, CHAs are conducted using a systematic process that includes the following steps:

1. Develop a CHA plan
2. Engage the community
3. Define the population
4. Identify community health indicators
5. Collect data
6. Analyze data
7. Identify health priorities
8. Report results

For purposes of the of the *Guam Community Health Assessment (Guam CHA)*, the Mobilizing for Action through Planning and Partnership (MAPP)[2] will serve as the primary model. Strategies and approaches to community engagement and other activities found in the Northwest Portland Area Indian Health Board Community Health Profile Toolkit and other models will also be used.

Pre-Planning Activities

To initiate the planning, Red Star facilitated preliminary meetings with DPHSS staff, including Mathi Mathews, Performance Improvement Manager; Josephine O'Mallan, Administrator, Bureau of Communicable Disease Control; and Bertha Taijeron, Program Coordinator III, Director's Office. Red Star convened conference call meetings with the DPHSS staff to provide an overview and orientation to the primary elements of a CHA, discuss the DPHSS readiness to conduct a CHA, identify strategies for community engagement, and to identify representatives to serve on a Core Planning Team to lead the effort.

DPHSS staff provided a brief orientation on the department and the unique social, political, and cultural history of Guam. When asked about community engagement, DPHSS staff shared that many of their programs maintain community coalitions and/or committees representing community voice on Guam. Community was also engaged in the development of a 5 Year Strategic Plan, which had been drafted, but had not yet been released. They discussed a number of DPHSS reports, community needs assessments, and other strategic planning activities completed by various programs throughout the department.

[2] National Association of County and City Health Officials. *Mobilizing for Action through Planning and Partnerships (MAPP): Achieving Health Communities through MAPP, A User's Handbook.* Washington, DC: National Association of County and City Health Officials; 2001.

Red Star discussed the importance of having a Core Planning Team to conduct the CHA. The Core Planning Team is responsible for planning and conducting the community health assessment, defining community, health indicators, data collection methods and producing a useful CHA report. Important considerations for selecting the team include those individuals who hold leadership positions within DPHSS; have historical knowledge; maintain community knowledge and relationships; and are familiar with data both within DPHSS and sources outside of the Guam Government. Red Star recommended that the Core Planning Team remain relatively small with 6-8 members. Guam representatives felt that more information on CHA was needed to be able to select individuals to participate on the Core Team.

Based on preliminary discussions and preplanning, three important decisions were made: 1) Training on accreditation and community health assessment were needed to better prepare DPHSS personnel and engage community stakeholders; 2) Core Planning Team members would be identified during the site visit; and 3) Guam staff would complete Committee and Planning Report Logs to document existing mechanisms for community engagement and current assessment activities. A detailed agenda was then developed to provide training, engage community and initiate the Core Planning Team. Table 2 below provides an overview of Site Visit activities.

Table 2. Initial Site Visit Agenda Overview

DAY	DATE	TIME	MEETING	DESCRIPTION
1	Monday, July 30	9:10 am – 4:00 pm	Accreditation 101 Training	DPHSS administrators and managers
2	Tuesday, July 31	9:00 am – 4:00 pm	CHA Training	DPHSS staff and community leaders; facilitated engagement
3	Wed, August 1	9:00 am– 12:00 pm	CHA Planning Team Meeting	Discuss the draft approach to the CHA
		1:30 pm– 5:00 pm	DPHSS Tour & Community Tour	DPHSS staff will lead a community tour for Red Star Team
4	Thursday, August 2	9:00 am– 12:00 pm	CHA Core Planning Team Meeting	Identify CHA vision, purpose and outcomes
		2:00 pm– 5:00 pm	Informal meetings with DPHSS key staff	DPHSS key staff will be identified for key informant interviews
5	Friday, August 3	9:00 am– 11:00 am	Closing Meeting with CHA Planning Team	Summarize meeting outcomes and discuss next steps

Site Visit Outcomes

The Guam CHA pre-planning activities resulted in the establishment of a Core Planning Team composed of representatives from all five DPHSS divisions: Division of Environmental Heath, Division of Public Health, Division of General Administration, Division of Senior Citizens, and Division of Public Welfare. The majority of representatives have experience and expertise with assessment and planning, which are very important to completing the Guam CHA. Members of the Core Planning Team were invited to join the planning team meetings during the Site Visit. The Core Planning Team members are listed alphabetically by first name in Table 3 below.

Table 3. Guam CHA Core Planning Team

NAMES	TITLES	DIVISION/BUREAU
Abraham Mora	Program Coordinator III	Northern Region Community Health Center
Alyssa Uncangco	Program Coordinator IV	Bureau of Community Health Services
Bertha A. Taijeron	Program Coordinator III	Division of General Administration, Director's Office
Cindy Naval	Planner IV	Division of Environmental Health
Elizabeth Ignacio	Program Coordinator IV	Bureau of Social Services Administration
Geraldine Gumataotao	Management Analyst III	Division of Senior Citizens
Josephine O'Mallan	Administrator	Bureau of Communicable Disease Control
Mathi Mathews	Performance Improvement Manager	Division of General Administration, Director's Office
Margaret M. Bell	Program Coordinator	Bureau of Family Health and Nursing Services
Margarita B. Gay	Administrator	Bureau of Family Health and Human Services
Rosalie Zabala	Administrator	Bureau of Community Health Services

It is important to establish values to guide the team's work and to discuss their roles and responsibilities, including time commitment. Establishing decision-making processes (e.g. decision by vote or consensus) and methods for ensuring accountability by the team are also important activities. Through facilitated discussion, the Core Planning Team identified the following values to guide their work throughout the Guam CHA plan development and implementation:

- Service before self
- Integrity
- Respect
- Be non judgmental
- Be culturally sensitive
- Hard working
- Stay focused on task
- Commitment
- Shared decision making
- Leadership – be open minded and collaborative
- Be accountable and follow through
- Trust

Defining the community and identifying the vision, purpose and desired outcomes are foundational elements to the development of the Guam CHA Plan. Defining the community is an important step as it sets the parameters for developing measurable health indicators and guides data collection for defined health indicators. Health Departments seeking public health accreditation ought to align the definition of the community with the "population served by the jurisdiction" as identified in the application for accreditation. (See Public Health Accreditation Board website: www.phaboard.org.)

During the two-day planning, the Core Planning Team identified the "community" to be addressed by the CHA as all those who live on Guam. The primary audience of the CHA includes the Governor's Office, the Mayors Council, the Community Health Center Board, and DPHSS Division Heads. Once the community was defined, they *drafted* a vision, purpose, and outcomes, which are highlighted below. The vision, purpose and outcomes will be finalized during plan implementation.

Vision of Health:

All people of Guam will have access to affordable healthcare, choose to live a long, more productive life (body, mind and spirit), and live in a clean environment.

Purpose of the Guam CHA:

The primary purpose of the Guam CHA is to provide a centralized source of data, information, and community strengths to support collaboration and coordination among DPHSS programs, community partners, policy makers and funders for a healthier Guam.

Desired Outcomes:

By providing a centralized source of information and data about the health status of all those who live on Guam, our hope is to achieve the following:

- Provide policy makers with information and data to inform important public health policies, laws and legislation that promote health and wellness.

- Inform community health improvement planning based on community engagement and greater collaboration and coordination of services.
- Strengthen coordination of services among community agencies and organizations through formal mechanisms, such as Memoranda of Understanding, data sharing agreements, and co-sponsored events.
- Strengthen DPHSS capacity through greater internal and external collaboration and coordination of services.
- Continuation of the planning committee with biannual meetings to maintain momentum generated by this community health assessment planning process

On Day 5 of the Site Visit, Red Star presented a draft Guam CHA Work Plan for review and input by the Core Planning Team. The draft work plan included goals, objectives, activities, lead or responsible party, and process documentation. Red Star incorporated the suggestions made by the team and finalized the plan as presented here. As with any plan, it is a living document that may be modified as needed. There may be additional tasks identified by the team or the timeline may be adapted as activities are completed more quickly than expected or there are unanticipated delays. Regardless, the Guam CHA Work Plan is designed to serve as a roadmap and guide throughout the community health assessment process and to be adapted as necessary.

III. GUAM CHA PLAN

The Guam CHA Plan is divided into four standard phases: 1) Guam CHA Readiness; 2) Health Prioritization and Indicator Identification; 3) Data Collection and Analysis; and 4) Reporting. Each section of this plan includes a brief explanation of the purpose and intent of the phase, a description of planned activities, and points for consideration when making important decisions during implementation. The Guam CHA Plan is designed to be a tool to support the Guam DPHSS Core Planning Team as they engage in activities within each phase.

The Guam CHA Work Plan, found on Table 4 of the following page, was developed to guide the Performance Improvement Manager (PIM) and Core Planning Team through the necessary tasks to complete a comprehensive CHA. The key phases of the Guam CHA are framed as goals and objectives. Each objective is broken down into tasks/activities and identifies process documentation, lead personnel or party responsible for completion, and the estimated timeline for completion. The timeframe for implementation of the entire plan is twelve months. It is important to remember the Guam CHA Work Plan is a living document and may be modified during implementation.

The Core Planning Team is vital to the successful completion of the Guam CHA. Coordinating the Guam CHA includes maintaining regular communication with the Core Planning Team, convening and facilitating regularly scheduled meetings, providing summaries, and ensuring action steps are identified at the end of each meeting. The DPHSS PIM will convene and maintain the team to ensure they have the information needed to make decisions and complete important tasks.

Developing a simple evaluation for the Guam CHA process is an important component of the planning. Red Star worked with the Core Planning Team to identify process documentation to track fidelity to the plan and ensure integrity and transparency of the process. Process documentation will be important to collect and maintain for purposes of accreditation and to guide future iterations of a CHA. Outcome measures will need to be identified to determine whether the Guam CHA achieved its goals. This is discussed in more detail in *Guam Readiness (Goal 1)* section of the plan.

Table 4. Guam CHA Work Plan

OBJECTIVE	TASKS	PROCESS DOCUMENTATION	LEAD	2012			2013								
				O	N	D	J	F	M	A	M	J	J	A	S
GOAL 1: Conduct activities designed to establish and document DPHSS readiness to conduct a CHA.															
(1a) Define the Vision, Purpose and Desired Outcomes	a. Convene and maintain the DPHSS Core Planning Team	Meeting Agendas	PIM	X	X	X	X	X	X	X	X	X	X	X	X
	b. Identify outcome measures to evaluate implementation of the CHA	Outcome measures	PIM w/ Core Team	X											
	c. Finalize vision, purpose and outcomes with Director and Division Directors' input	1-page description	Core Team	X											
(1b) Obtain Leadership Support	a. Obtain formal DPHSS Director's support	Letter of Support (LOS)	PIM w/ Core Team	X											
	b. Inform Legislators of CHA and seek support	LOS or Meeting Minutes	PIM w/ Core Team	X	X										
	c. Inform the Governor's Office of the CHA and seek formal support	Executive Order	PIM w/ Core Team	X	X										
	d. Obtain formal Mayors Council support and obtain input on health priorities	LOS/Meeting Minutes	PIM w/ Core Team	X	X										
(1c) Engage Key Stake-holders (Community Organizations, community members and DPHSS)	*Refer to definition of Community and the CHA planning team vision/purpose/outcomes for the following tasks:*														
	a. Identify representatives to serve on the Community Stakeholder Committee (CSC)	CSC List	PIM	X											
	b. Identify DPHSS representatives from diverse divisions and/or bureaus	Representatives list	Core Team	X											
	c. Identify strategies to engage and inform DPHSS stakeholders throughout the CHA	Meeting Summary	Core Team	X											
	d. With involvement of CSC, identify specific/target groups to engage in CHA	Meeting Summary	Core Team		X										

OBJECTIVE	TASKS	PROCESS DOCUMENTATION	LEAD	2012			2013								
				O	N	D	J	F	M	A	M	J	J	A	S
(1d) Determine Data Availability	a. Gather key DPHSS assessments and surveillance conducted in past 5 years	Assessments and Reports Log	PIM	X											
	b. Generate a comprehensive matrix of health priority areas and indicators	Assessments & Reports Inventory	PIM/Data Workgroup		X										
	c. Assess availability, quality and limitations of data sources used for these reports	Memo	Data Workgroup		X										
	d. Document that quality and accessible data exists within DPHSS	Memo	Data Workgroup		X										
GOAL 2: Identify health priorities and define health indicators based on community input.															
(2a) Identify Health Priority Areas	a. Ensure identified health priority areas are aligned Guam CHA purpose and objectives	Meeting Summaries	Core Team		X										
	b. Engage CSC and DPHSS representatives to identify data gaps and prioritize health topics and explore root causes	Meeting Summary	PIM		X										
	c. Finalize health priority areas to be covered by the CHA	Final List	Core Team		X	X									
	d. Present to internal leadership for final approval	Meeting Summary	PIM			X									
(2b) Identify Health Indicators And Data sources	a. Identify and define health indicators to be used	Health Data Indicator Table	Data WG				X								
	b. Compare health indicators to HP 2020	Meeting Summary	Core Team												
	c. Identify data sources for the measurable indicators	Meeting Summary	Core Team Data WG				X								
	d. Draft Final Health Indicator Data Sheet for presentation to the Core Team	Health Data Indicator Table	Data Workgroup				X								
	e. Present final health indicators to the Core	Meeting	Data				X								

OBJECTIVE	TASKS	PROCESS DOCUMENTATION	LEAD	2012			2013								
				O	N	D	J	F	M	A	M	J	J	A	S
	Planning Team	Summary	Workgroup												
	f. Present final health indicators to internal leadership for final approval	Meeting Summary	PIM				X								
GOAL 3: Collect, analyze and report data based on a data collection plan															
(3a) Develop a data collection plan and collect data	a. Identify data collection tools, methods and analysis	Data Collection Plan	Data WG Core Team				X	X							
	b. Determine protocols for primary and secondary data collection	Meeting Summary	PIM				X	X							
	c. Determine data: storage and security	Collection Plan	PIM				X	X							
	d. Collect data according to methods	Datasets	PIM						X	X	X				
(3b) Analyze data	a. Conduct the analysis: clean and prepare data 2) use formulas and statistical tests	Outputs of results	Data WG								X	X			
	b. Present findings to CSC for input on analysis and identify strategies	Meeting Summary	PIM									X			
	c. Finalize data analysis and interpretation	Analysis Report	Data WG									X			
GOAL 4: Disseminate and make available the results of the Guam CHA to a broad audience															
(4a) Develop a CHA Report	a. Develop draft outline and share with planning team, revise and finalize	Outline	PIM								X				
	b. Draft community profile CHA results and priorities	Draft Profile	PIM									X	X		
	c. Incorporate and finalize report	Final Report	PIM										X		
	d. Obtain formal approvals from leadership		PIM										X		
(4b) Disseminate the Report	a. Develop a plan for dissemination of the CHA Report	Dissemination Plan	Core Team							X	X	X			
	b. Disseminate CHA Report broadly	Dissemination activities	PIM											X	X

The simplest way to identify an outcome measure is to ask the question: How will we know we have achieved the desired outcome? The outcome above is focused on providing policy makers with data and information to inform their work. We will know we have achieved that outcome by providing them with a CHA report that highlights health priorities as identified by DPHSS and its community stakeholders.

Obtain Leadership Support

Conducting a comprehensive community health assessment reflective of the health and wellbeing of Guam residents is an endeavor that requires both DPHSS leadership and community/key stakeholder support. Leadership support will ensure there is broad-based support for the project and its process, including the selection of meaningful health indicators that are aligned with leadership priorities, appropriate methods are used for data collection and analysis, and the interpretation of findings is useful to DPHSS and key stakeholders in Guam. The Core Planning Team identified the following leadership support needed to conduct the Guam CHA: DPHSS Director, Governor of Guam, Guam Legislators, and the Mayors Council.

The Core Planning Team identified various mechanisms for documenting support from the leadership identified above. The Core Planning Team will need to determine the best approach to obtaining support, whether by letter, presentation, or information session. This may include activities such as preparing and presenting on the importance of conducting a Guam CHA to the Governor's Office and/or Mayors Council, and then following up with a request for an Executive Order or Letter of Support. (Refer to *Sample Letter of Support Request*, Appendix B.)

Engage Key Stakeholders

A collaborative approach to conducting a CHA is critical to ensuring a community driven process. Community participation fosters greater collaboration and coordination of services to address community needs, engages partners in both the identification of and solution to important community health concerns, and it builds community capacity and accountability to improve health outcomes.

Guam Public Health System

The Guam Public Health System includes all stakeholders and partners responsible for assuring the health of a community. During the Site Visit, training participants identified key

stakeholders and community resources and activities, and organized them according to the 10 Essential Services. (See *Guam Stakeholders and Services by Essential Public Health Service*, Appendix C.) The Core Planning Team will refer to this list of stakeholders when considering representatives to participate in community engagement activities.

The Core Planning Team determined that a Community Stakeholder Committee (CSC) will be convened to ensure a systematic process for community engagement occurs throughout the process. Community representatives need to be identified to serve on the CSC. Considerations when selecting community members and/ or community organizations are: their level of interest, availability to actively participate, and past experience conducting assessments. The Core Planning Team ought to consider shared goals and the potential to mutually benefit the community and organization through their participation. Transparency is important; if there are past challenges or barriers to effective collaboration and partnership they should be shared and addressed if possible.

The CSC will be involved in tasks including, but not limited to, the following:

1) Assist with obtaining leadership support, if needed
2) Identify health priorities areas
3) Identify effective and appropriate methods for data collected from key stakeholders
4) Participate in data interpretation of findings and providing feedback on final report
5) Assist with its distribution to a broad audience

Along with identifying representatives to serve on the CSC, the Core Planning Team also discussed the importance of involving internal DPHSS key stakeholders representing diverse Division, Bureaus, Programs and Committees. These individuals may play a vital role in providing input at various stages of the Guam CHA and assist with the dissemination of the Guam CHA report.

Helpful Tips! Community engagement is an essential element of the CHA process and is a requirement for public health accreditation. DPHSS can involve community members in a variety of ways and at different times throughout the CHA process. Community participation and input can be valuable since the CHA results could potentially influence the health status and health service delivery in the community. DPHSS may host events, such as

community forums or town hall meetings, to prioritize health concerns, identify community strengths, and explore root causes to important health concerns. During the week-long Site Visit, the DPHSS staff and community representatives discussed community engagement and identified the following:

- Who to engage in the community
- Ways to engage members of the community
- Strengths & Potential contributors in the community
- Why engage/Desired outcomes

The outcomes of their participation are summarized in *Community Engagement Outcomes,* Appendix D.

Assess the Availability and Quality of Existing DPHSS Data

DPHSS has experience conducting assessments, surveys and surveillance in a variety of health areas. Taking the time to review past assessments, surveillance reports and plans helps prevent duplication, reduce undue burden on DPHSS personnel, and acknowledges previous work of various DPHSS divisions. Red Star conducted an initial review of assessment and program reports provided by DPHSS and drafted a *DPHSS Assessment and Reports Inventory* (See Appendix E). The inventory contains preliminary information found in the various DPHSS assessments and reports, including:

- Health priority areas or categories
- Health indicators, if available
- Identification of data sources
- Community engagement: partners and/or methods used

The Core Planning Team identified members who have experience and expertise with data management to serve on a Data Workgroup. The Data Workgroup will need to assess the availability, quality and limitation of the data sources used in the Assessment and Reports Inventory. It will be critical to document health status data to be included in Guam CHA as current (within the last 3 years), quality (valid and reliable) and accessible (available). The Data Workgroup review of the inventory data will be documented by the creation of a Health Data Indicator Table. Data indicator tables should include columns that list important information, including the health topic, data indicators (measure), data source(s), and notes about availability, quality and limitations. Once completed, it is recommended that the Data Workgroup present the Data Indicator Table to the Core Planning Team in the form of a memorandum along with recommendations or considerations for the team.

Helpful Tip! Often there are limitations to data. The data may not be representative of the entire community or it may not be current or outdated. Data sources may not be available or are very limited for some health topics, such as substance use or addiction. Sometimes only estimates for a health indicator are available. When reviewing the data, consider the following:

- Is the data current – collected and representative of health status within the last 3 years?
- Is the source credible?
- Are the data complete? Are you getting all of the information or only a portion?
- Are there issues with the data or errors such as duplicates, incorrect values, missing values, or missing variables?
- Do the data make sense?
- What are the limitations to the data?
- Are there any factors or intervening variables causing distrust of the data?

Data collection and indicators are covered in more detail in the following section. The resources listed below are available to provide additional guidance on documenting data indicators and data availability. Links to websites and tools are provided below to help guide this effort.

- ✓ National Association of County and City Heath Officials – Clearinghouse: Community Health Status Assessment
  http://www.naccho.org/topics/infrastructure/mapp/framework/clearinghouse/phase3CHSA.cfm
- ✓ Northwest Portland Area Indian Health Board – Community Health Profile Toolkit
  http://www.npaihb.org/resources/project_toolkits/
- ✓ University of Kansas - The Community Toolkit: Evaluation Planning
  http://ctb.ku.edu/en/default.aspx

IDENTIFYING HEALTH PRIORITIES AND DEFINING INDICATORS PHASE (GOAL 2)

The second goal of the Guam CHA Work Plan is to identify health priorities and define health indicators based on community input. The objectives for this goal are (2a) Identify Health Priority Areas; and (2b) Identify Health Indicators and Data Sources for Priority Areas. The ultimate goal is to generate a final health indicator list, which is the foundation of a community health assessment. Accomplishing this phase of the Guam CHA Plan will ensure that the data and information included in the CHA is meaningful and useful for the DPHSS and community stakeholders.

Identify Health Priority Areas

During the Site Visit training, DPHSS staff and community representatives participated in an activity to identify and prioritize health topics by data category. Data categories used for the activity include demographics, socio-economics, non-communicable diseases, communicable diseases and morbidity, and quality of life, among others. A summary of health priorities, indicators and data sources is provided in the *DPHSS Staff and Community Identified Health Indicators*, Appendix F.

It is recommended that the Core Planning Team review and compare the health priority areas and indicators summarized in the DPHSS Staff and Community Identified Health Indicators with the Health Data Indicator Table completed by the Data Workgroup. The outcome of the comparison will be a **draft** of health indicator areas, approximately 10 – 15, to be presented to the CSC and internal DPHSS representatives for community input, to identify data gaps and prioritize health topics.

The PIM and/or the Core Planning Team will then convene the CSC and internal DPHSS representatives and facilitate health priority setting activities to identify gaps in the data, explore root causes, and obtain final recommendations regarding the health topics to be included in the Guam CHA. Convening these groups will include invitations and providing needed materials (e.g. draft health indicators areas and Guam CHA Description). Once input is obtained, the PIM will work with the Core Planning Team to finalize a list of health topics and potential indicators to be included in the Guam CHA. The final task for this objective is to present to internal leadership for final approval.

While there is no set number for how many health indicators should be used in the CHA, it is important to ensure that you have enough data to provide an overall snapshot of the community's health. Data collection is both labor and time intensive so it is just as important to prioritize health indicators so that data collection and

analysis are manageable. To prioritize health indicators, the Core Planning Team will need to identify a set of criteria for determining which indicators to include in the CHA. Examples of criteria include:

- Importance - as communicated by Leadership and community
- Size of the problem - number of people affected
- Seriousness - leading causes of death
- Trends - increase in prevalence among specific age groups or gender
- Equity - addressing health disparities

Other criteria may be used as well. Whatever criteria are used, it is important that there is a general consensus among the group prior to data collection.

Visit the NACCHO Accreditation Preparation Toolkit for Tools & Templates: Prioritization Methods for prioritization activities. http://www.naccho.org/toolbox/tool.cfm?id=2057

Identify Health Indicators and Data Sources

Defining health indicators and identifying data sources can be time consuming. It will require the Core Planning Team, with support from the Data Workgroup, to investigate the availability and feasibility of collecting data on the health indicators identified. When data are available, reliable and appropriate, the health indicator values of one group can be compared to the values of the same health indicator for other groups. Comparisons are useful in determining how the community fares in relation to other groups (e.g., other territories, islands, racial, state-wide, or nationwide groups or populations).

The approach taken to identify the Guam CHA health indicators is a form of triangulation, which entails the use of two or more methods to determine if they lead to the same results. For the Guam CHA plan, two methods were used during the pre planning phase: 1) Obtaining input from DPHSS personnel and community stakeholders during the Site Visit training and planning meetings; and 2) Review of existing assessment and reports identified in the Assessments and Reports Inventory. The Core Planning Team will identify areas of overlap in terms of identified health priorities.

Health Indicators Health status is often assessed using objective measures called *health indicators*. A health indicator is a measurement or characteristic of an individual, population or environment used to describe one or more aspects of health. Health indicators are used to define a health concern at a particular point in time; indicate change in the level of health over time; and/or define differences in the health of communities

or populations. Health indicators are commonly presented as numbers, percentages or rates. Three examples of measures mentioned are provided in Table 5 below:

Table 5. Common Health Indicator Measures

TYPE OF MEASURE	DESCRIPTION	EXAMPLE
NUMBER	A count of individuals, cases or health events	10,000 individuals were enrolled in Medicaid in 2010
PERCENTAGE	The number of cases or health events in relation to the whole, or per 100	40.0% of injuries were due to motor vehicle crashes in 2010
RATE	The number of cases or health events divided by the total or average population in a specified time period	For every 100,000 individuals, 175 had type-2 diabetes in 2010 **(175 individuals per 100,000 in 2010)**.

The following are resources to assist in defining health indicators and identifying data sources.

- ✓ Health Indicators
  - ➢ Health Indicators Warehouse: http://healthindicators.gov/
  - ➢ Healthy People 2020: http://www.healthypeople.gov/2020/default.aspx
  - ➢ Government Performance Results Acts (GPRA)
  - ➢ NACCHO: http://www.naccho.org/topics/infrastructure/CHAIP/
- ✓ Indicator Documentation Page and Indicator Development Worksheet:
  - ➢ NPAIHB Indian Community Health Profile: http://www.npaihb.org/resources/project_toolkits/
  - ➢ University of Kansas Community Toolkit: http://ctb.ku.edu/en/default.aspx

DATA COLLECTION AND ANALYSIS (GOAL 3)

This third component of the Guam CHA is to collect, analyze and report data. This will be achieved through the following objectives: 1) Develop a plan for data collection and collect the data; and 2) Analysis of data collection, primary and secondary. A data collection plan describes what types of data will be collected, methods for data collection, how the data will be stored and handled, and how the data will be analyzed. When collecting data, all Guam governmental and departmental policies and procedures should be followed. All persons involved should be familiar with policies and procedures related to collecting data to ensure appropriate collection, use and management of data.

There are six steps to developing a data collection plan: 1) Determine primary and secondary data to be collected; 2) Select data collection methods and tools; 3) Consider important concepts of measurement and data collection; 4) Identify record keeping process; 5) Determine how data will be analyzed; and 6) Data interpretation and prioritization. Each step is described below.

1) Determine Primary And Secondary Data To Be Collected

Refer to list of selected health indicators and proposed data sources and determine whether existing data or new data needs to be collected. Depending on the health indicator and data source, the data may have already been collected and analyzed. When data are initially collected for one reason, but later utilized for another purpose the information collected is called secondary data. Advantages of utilizing secondary data are saving cost and time. Since the data were collected for other reasons, however, secondary data may not be available for the selected health indicator or the community. When appropriate, and if secondary data are not available, primary data (data collected specifically for the assessment, study or project) can be collected utilizing methods described below.

2) Select Data Collection Methods and Tools

The next step is to determine the type of data that needs to be collected and the methods that will be used to gather the information. *Quantitative* and *qualitative* data are the two major types of data and data collection methods. Quantitative methods are used to obtain generalizable information and answers questions regarding whom, how much, and how many. Statistical analysis of quantitative data produces frequencies, averages, and percentages. Qualitative methods characterize and convey meaning, but do not numerically measure attributes. Although more time and effort may be required, qualitative data is advantageous because it describes perceptions and opinions.

Data Collection Methods

Quantitative and qualitative data can be collected in several ways. Common examples of data collection methods are described below. Be sure to identify staff or collaborators with skills in quantitative and qualitative data analysis.

Surveys. A survey is a common quantitative data collection method. However, some surveys include open-ended questions for qualitative data. For a survey, information is gathered from only a portion of the community. This portion is called a sample, is systematically selected, and is intended to represent the entire community. A questionnaire is a common instrument used to obtain responses.

Interviews. Key Guam DPHSS staff and members have a wealth of knowledge about the community, health services, assets or resources for a CHA. Individuals who are well informed about one or more aspects of community health can be considered "key informants." The interviewer asks a set of predetermined questions, and at times, will ask follow-up questions to obtain more information. This method generates qualitative data. Develop a protocol that outlines the interview process, especially when there is more than one person conducting the interviews. A great deal of information is shared during an interview and must be recorded by taking detailed notes or by using an audio recorder.

Focus Groups. Like interviews, a focus group is a qualitative method. Groups of individuals are asked open-ended questions regarding their thoughts, beliefs, opinions, and attitudes to a group of individuals by a skilled moderator. The participants interact with each other as they respond to the questions guided by the moderator. Unlike a "key informant interview" the participants are not necessarily experts on the topic. Similar to interviews, the focus group should be recorded by audiotape or note taking if the participants grant permission.

Observations. During a planned event or activity, healthy behaviors can be observed. For example, staff can conduct a checkpoint in the community to observe seatbelt usage of the passengers in vehicles that pass. Trained staff are not the only persons with the ability to collect data through observation. Community members can participate in windshield

surveys by following predetermined criteria to identify meaningful people, places or objects in the community. The individual can take a picture and explain why it is related to community health.

Community Meetings or Forums. This method encourages community members to share their own thoughts, opinions, experiences, and perceptions in an open meeting. Be certain to use a format that allows for community members to have a collective discussion and share ideas.

Record or Chart Review. Existing records or medical charts can be examined for measurements, disease occurrence and other health-related information. Establish criteria for determining which records are eligible for review and what information will be collected.

3) Consider Important Concepts of Measurement and Data Collection

Select the most appropriate methods and tools for measurement with careful consideration. Ultimately, the methods and tools need to be able to measure and collect sound data. Two important concepts to consider are reliability and validity. Reliability relates to consistency; in order to be considered reliable, the method or tool should produce comparable results if used again on the same group. Validity refers to accuracy or the essential truthfulness of data. Accuracy is important because the data should measure or reflect what it was intended to measure, such as health events in the CHA. Once data collection methods are identified, the next task is to ensure appropriate protocols are followed: 1) Primary data source may require IRB approval and 2) Secondary data may require MOA or MOU, agreements and protocols.

4) Data Storage and Management

Data are usually recorded on paper or electronic documents. Both are appropriate ways to record data, but electronic records allow for easier access, comparison of information and generation of statistics. Like electronic records, paper records should be secured properly. If data are collected from different sources, the data must be kept separate during data collection and analysis.

A component of the data collection plan is identifying the type of data management that will be used to store the Guam CHA data. This system must be secure to protect the health information. All data used for the Guam CHA will be de identified and aggregated to produce the proportions used in this area. Once data have been collected and recorded, the next concern is data storage. Data must be stored and protected in a secure manner. Adequate

storage of the data ensures that results can be repeated and reconstructed at a later time, if necessary. In addition to the data, relevant notes and observations should be saved.

Data can be stored as paper files, but storing data on a computer is common and necessary for conducting statistical analysis tests. Data can be entered and stored in a database or through a number of computer software applications. Some examples of data entry and storage software include Microsoft (MS) Excel, MS Access and Epi Info®. Common characteristics of electronic data storage include the following:

- Prompt access to the data
- Low cost, if there is a computer system in place already
- Data can be archived
- Backup systems are available

Data Protection Data protection relates to safeguarding the written and electronic data from physical damage and protecting data integrity, including damage from tampering or theft. In order to maintain the integrity of stored data, it should be protected from physical damage as well as from tampering, loss, or theft. Limiting access to the data is good practice for protecting data. An appropriate person of authority ought to decide who has authorization to access and manage the stored data. Notebooks and questionnaires should be kept together in a safe, secure location away from public access like in a locked cabinet. It is important to fully educate all project members and individuals with access about data protection procedures. Electronic data can be protected using precautions found in Table 6.

Table 6. Data Protection Strategies

PROTECT ACCESS TO DATA	PROTECTING THE SYSTEM	PROTECTING DATA INTEGRITY
• Use unique user identification logins and passwords that cannot be easily guessed • Change passwords often to ensure that only current project members can access data • Provide access to data files through a centralized process • Limit access rights • Ensure that outside	• Keep updated anti-virus protection on every computer • Maintain up-to-date versions of all software and media storage devices • If your system is connected to the Internet, use a firewall • If your system is connected to the Internet, use intrusion detection software to monitor access	• Record the original creation date and time for files on your systems • Record changes made to the data and data files • Regularly back up electronic files (both on and offsite) and create both hard and soft copies • Ensure that data are properly destroyed

wireless devices cannot access your system's network • Ask your IT department about other data safety procedures		

There is no set amount of time for which data should be stored. This may be dependent on existing data policies within Guam government departments. The DPHSS may decide to keep data indefinitely and past the end of the project. Reasons for keeping data may include needing to evaluate the data in the future. On the other hand, keeping data indefinitely increases the risk for possible unauthorized access. When the decision has been made to end data storage, data should be thoroughly and completely destroyed.

5) Determine Methods for Data Analysis

There are two steps to analysis of quantitative data: 1) Processing and preparing the data for analysis; 2) Conducting the analysis, which means running the appropriate statistical test and formulas; and 3) Illustration of results using graphs and tables. Table 7 below, is a sample of a data analysis plan

Table 7. Sample Data Analysis Plan

PURPOSE OF CHA AND ANALYSIS	The purpose of the analysis should correspond to overall goals of the community health assessment.
VARIABLES FOR ANALYSIS	Identify and describe the variables that will be used during analysis.
SOFTWARE TO BE USED	Determine what computer application or software will be used for analysis and generation of graphs such as Microsoft Excel, Epi Info®, SAS, or Stata, NVivo, Atlas.
METHODS USED TO ANALYZE THE DATA	There are many statistical procedures used to analyze data, but not all address the purpose of the survey or are appropriate for the data.
DATA PRESENTATION	Anticipate how the data will be displayed after analysis by creating example tables, charts and graphs.
PERSONS RESPONSIBLE	Select who will be responsible for each task related to data analysis.
TIMELINE	Establish a timeline for data analysis and provide an estimate of the total time needed to complete the analysis.

Before conducting analysis, the collected data must be properly managed and prepared for testing. This often includes data cleaning and coding. Data cleaning involves the identification of data that are inaccurate, incomplete, missing or unreasonable and the steps taken to fix

these errors. Table 8 lists the types of values that might be labeled, corrected, or removed prior to conducting analysis.

Table 8. Data Cleaning Methods

TYPE	Description	Possible Action Taken
Missing Values	Observations that are missing in the dataset	Check records to make sure the data was not mistakenly omitted from being entered into the dataset. Record the observation as missing in the dataset, if appropriate for analysis. The dataset may not be considered complete if there are too many missing values.
Outliers	Unusually large or small values that are separated from the rest of the data	The data analyst ought to determine the extent to which the value is an error, or if it is truly an outlier. One approach is to review the data records to make sure a mistake in data recording or data entry occurred. Outliers often are excluded from analysis, but some may provide valuable information.
Invalid or Implausible Values	Values that are considered to be unreasonable or beyond the range of what is considered possible. (Example: A patient's birth date was January 1, 2010, but listed that the individual died in 2009.)	Review data records to make sure a mistake in data recording or data entry occurred. The data analyst ought to consider eliminating invalid or implausible values from the analysis.

Data coding is a process that assigns a value, usually a number, or a label to observations. This improves the data entry process and prepares the data for analyses that require a numeric value. When possible, a coding system ought to be developed prior to data entry, but data can be re-coded during the data cleaning process. For example, a "yes" response can be coded as "1" in the database, and a "no" response can be coded as "0".

The data analyst will use statistical tests and formulas to obtain measures of the presence and distribution of health issues. There are many ways to analyze data. The technique used depends on the health indicator and the type of data. Refer to description of selected health indicators developed in the planning process to recall if the results ought to be presented as a count (frequency), percentage, or rate. When possible, examine the data by distribution. A distribution is the organization or arrangement of all the different values of a variable into groups to show occurrence. Distributions are often examined according to age, gender or other demographic characteristics. If comparison data will be included in the CHA, the data analyst should utilize similar methods on all groups.

6) Interpretation and Identify Health Priorities

Once the data for the community health assessment has been analyzed, the next step is to make sense of the data. It answers the questions, "What story is the data telling?" Did the data provide more information about the scope of health issues in the community? Did the data demonstrate a need for concern in the areas expected by the Guam Core Planning Team and CSC?" No matter how well the assessment was conducted, data cannot answer or explain everything. However, an objective interpretation of the findings will relate the relevant issues and concern to context of the community.

The data analyst and/or Data Working Group will compile tables and graphs for use in interpretation of findings. Tables provide a simple summary of information in categories. Charts and graphs are more visual than tables making it easier to see trends over time more clearly and make comparisons between groups. Common types of charts include line graphs, bar charts and pie charts. Line graphs and bar charts are good for trends and comparisons. Generally, fewer categories are better for bar graphs. Pie charts are good when using percentage data or parts of a whole. Again, fewer categories are better. When developing graphs show the complete picture; clearly define the population, select appropriate categories, and include a title with descriptive labels.

The Guam Core Planning Team will plan and prepare material for a meeting(s) with the Community Stakeholder Committee. The purpose of this meeting (s) is to 1) Interpret the results and 2) Determine the health priorities for Guam. This is an important step because it provides the content material for the Guam CHA report. By engaging the CSC in the process, there is more assurance that the report is useful and meaningful.

Data Interpretation Data interpretation of results refers to how the data is presented and understood by key stakeholders. The following activities contribute to data interpretation:

- Determine Guam's health status based on primary and secondary data
- Look for trends over time
- Compare the territory data with other territories, states or even countries with demographics, geographic size and location, and other similar characteristics
- List the most important strengths and challenges posed by the results

The Guam Core Planning Team will engage the CSC in an activity to determine the health priorities that will be highlighted in the report. The Guam CHA is a basis for setting priorities,

health program planning, funding applications, and allocation and coordination of community resources. The DPHSS health priorities may or may not change when using the Guam CHA as a support document. Explain the reasons why the selected health conditions are considered priority and describe the evidence for why a health focus area should be considered a priority.

Data collection is estimated to take 6 months, from January 2013 – June 2013. The time period may be reduced if only secondary data is used. It primary data collection is conducted then it will take the full 6 months. The analysis should be completed in 2 months, May – June 2013.

REPORTING PHASE (GOAL 4)

The final component of the Guam CHA, and goal for the Core Planning Team, is reporting on the findings from the community health assessment. The major objectives associated with this component are: 1) Develop a Guam CHA report or community health profile; 2) Disseminate the Guam CHA report.

Guam Community Health Assessment Report or Profile

A "community health profile" report is a product of the community health assessment. The Guam Core Planning Team will determine the elements that ought to be included in the community health profile and how to best present the findings in an organized format. The table below is an example of a community health assessment report outline:

Table 9. Sample Community Health Profile

1. Background
   - History of Guam
   - Background (Location, Government, Economy and Resources, Culture, etc.)
   - Community Resources
   - Other information might be considered useful or needed
   - Map of Guam, outlining villages
2. Methodology
   - Approach to conducting the community health assessment (i.e. community engagement at every step)
   - Identification of Health Priorities and Defining Health Indicators
   - Data Collection and Data sources
   - Methods of Data Analysis and Interpretation of Findings
3. Limitations of data and analysis
   - Address your limitations
   - Describe how the findings are affected
4. Data on the health indicators
   - Health Indicator background/impact, contributing factors (root causes)
   - Key Findings
   - Table, graph and charts
   - Next Steps
5. Summary of Findings, including health priority areas identified from the data and contributing factors for these findings
6. Appendix (Additional relevant information)

Once you have a solid outline, the next task is to draft the community health assessment report or profile highlighting the priority health status data, interpretation, contributing factors and possible strategies to address the problems or support the areas of strength. Review draft and finalize with Guam Core Planning Team and CSC and then obtain leadership approval for the final report from the DPHSS director. The PIM is responsible for coordinating the meetings and drafting the Guam CHA report with support from the Data Working Group and/or contractors.

Disseminate the Guam CHA report

Sharing and reporting results serves several purposes for any project. The ultimate goal is for the information to be used to improve the health of the community, so the findings should reach all persons involved or interested in this topic. The information can be shared through written reports and oral presentations to the Guam government and Mayors Council, program directors, health staff, community members, partners, and other appropriate stakeholders. All findings, including lessons learned, should be communicated in a timely and understandable manner. If the DPHSS decides to release the community health profile, be sure to incorporate a section with key findings into the report so that the major results are clear to the users.

It is recommended that a simple, written plan be written to outline methods to be used to disseminate the Guam CHA Report. A *Dissemination Plan* will include the following elements:

- *Purpose and Use of CHA*
- *Community Engagement*
- *Format and Method of Delivery*
- *Methods for Obtaining Feedback from Community Members*
- *Person(s) Responsible*
- *Timeline*

Once the report is developed and ready for dissemination, the final task involves getting the information to the broadest audience and receiving their feedback and comments. The Guam CHA Report will ensure the information shared is available for use by community key stakeholders, and can be an excellent tool to garner support from leadership. After collecting and sharing information, obtaining feedback from community members, and identifying health priorities, the next step is to act on the information to promote the health of the community and address health risks. Action is not based on data alone. The process ought to be guided by DPHSS leaders and key stakeholders. The findings in the Guam CHA and the selected health priorities are valuable resources when highlighting where a positive impact on the community can be made, or other areas of opportunity. At this point, consider recommending the

development and implementation of public health policies, processes, programs or interventions.

The following are examples of communication approaches for disseminating information related to the Guam Community Health Assessment report:

- Meetings (e.g., presentations to the Mayors Council, other government leaders, health committees, district, village or chapter houses)
- Community events
- Coalitions and interest groups
- Media campaigns
- Community vigils
- Digital storytelling

Remember Your Audience When communicating the CHA findings, be sure to consider the audience when deciding which type of data to share. For instance, Mayors Council members or the health committee may request more information on the technical aspects of the project, while community members may expect the information to be presented in a way that is applicable to their lives. Think about the goals for sharing the information, and the impact you want to have. Graphs and charts are good visuals, but need to be visible to every participant. Be sure to explain any comparisons that were made to other groups and also changes over time. Provide general explanations when presenting data on health indicators, especially when rates or distributions are involved.

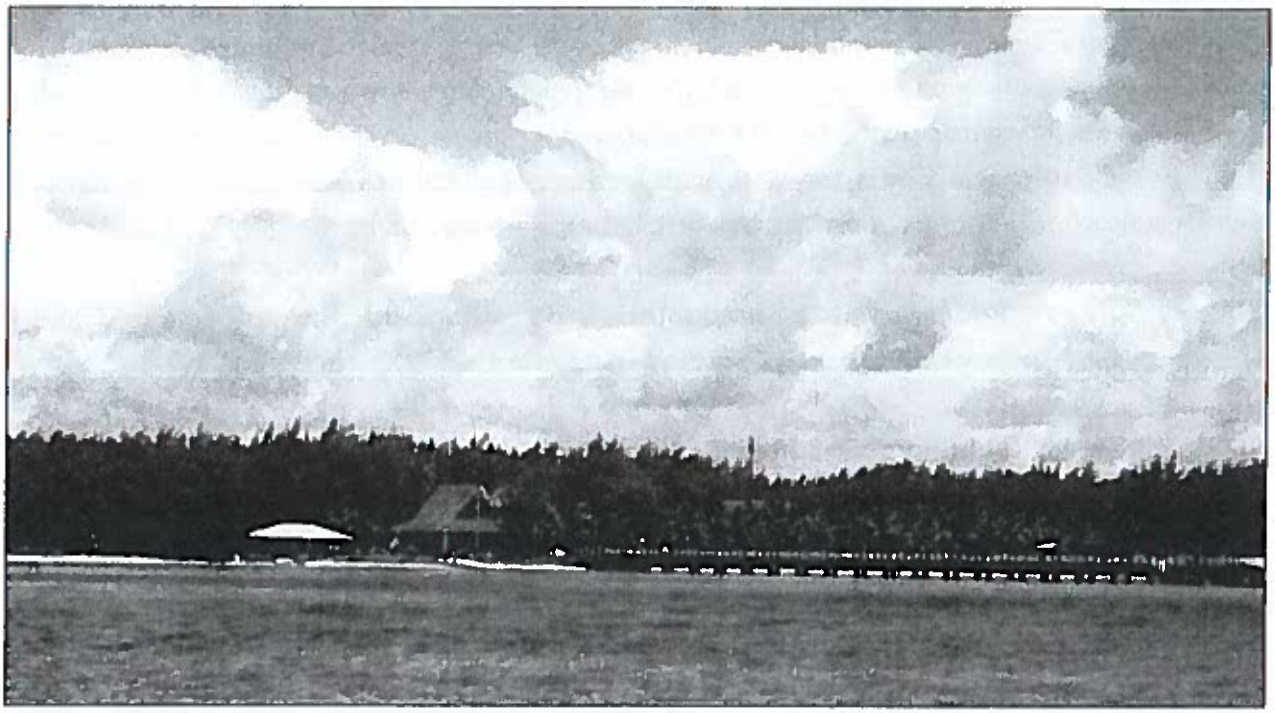
This table provides information to be used for the dissemination plan. It was generated during the pre-planning phase with the Guam Core Planning Team.

Table 10. Sample CHA Report Dissemination Plan

AUDIENCE	FORMAT	METHOD
DPHSS	Hard and electronic versions of the Guam CHA report	Post on website and list serves, Present at division budget setting meetings
Community partners / Community members	Electronic and hard copies of Guam CHA report, Press releases, Letters	Mail and email; Distribute to CSC members and others
Policymakers	Electronic and hard copies of Guam CHA report, Press releases, Letters, Topic Briefs, Fact Sheets	Website, Distributed to Governor's Office, Presented to Governor's office, Mayors' Council

The final step will be for the Guam Core Planning Team to identify next steps and determine how the Guam CHA Report will be used to develop a Guam Community Health Improvement Plan (CHIP). A CHIP identifies how the community will address health priorities identified in the CHA. This plan can be utilized as a road map for improving the health and well being of communities, and includes benchmarks for monitoring and evaluating progress. Moreover, it is a framework for rational planning and decision-making. The CHIP focuses on ways to eliminate root causes, modify behavioral risks, and improve other factors that affect health.

Helpful Tips! Table 10 is intended to be a starting point for developing the dissemination plan. It is not an exhaustive list of audiences, formats or methods. The intention of a CHA report is that DPHSS and community stakeholders use the report for programs, services and policy development. It is a resource for Guam, not only for the government but also for community members. Therefore, reaching the broadest audience possible is important.



V. APPENDIX

A. Guam CHA Description
B. Sample Letter of Support Request
C. Guam Stakeholders and Services by Essential Public Health Service
D. Community Engagement Outcomes
E. DPHSS Assessment and Reports Inventory
F. DPHSS Staff and Community Identified Health Indicators

Appendix A: Guam CHA Description

GUAM DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES
COMMUNITY HEALTH ASSESSMENT
BRIEF DESCRIPTION

The Guam Department of Public Health and Social Services (DPHSS) is preparing to conduct a Community Health Assessment (CHA), which is a collaborative process that includes regular and systematic collection, analysis and dissemination of information on the health status of a community. CHAs can be used to identify and collect information on the population's health status, community needs and assets, epidemiologic information and other aspects of health and wellness. The information gathered will be to plan, adapt and respond to important health concerns on Guam. The Guam CHA will involve a multi-step process that engages local government and community leadership in prioritizing health topics based on data, documenting and communicating results, planning for action and monitoring progress.

Vision of Health:
The guiding vision for DPHSS in its efforts to understand the health status of Guam is:

All people of Guam will have access to affordable healthcare, choose to live a long, more productive life (body, mind and spirit), and live in a clean environment.

Purpose of the Guam CHA:
The Guam CHA will seek to describe the health status of all those who live on Guam. The primary purpose is to provide a centralized source of data, information and community strengths to support collaboration and coordination among DPHSS programs, community partners, policy makers and funders for a healthier Guam.

Desired Outcomes:
By providing a centralized source of information and data about the health status of all those who live on Guam, our hope is to achieve the following:

- Provide policy makers with data and information to inform important public health policies, laws and legislation that promote health and wellness.
- Inform community health improvement planning through community engagement and greater collaboration and coordination of services.
- Strengthen coordination of services among community agencies and organizations through formal mechanisms, such as Memoranda of Understanding, data sharing agreements, and co-sponsored events.
- Strengthen DPHSS capacity through greater internal and external collaboration and coordination of services.

Appendix B: Sample Letter of Support Request

[DPHSS Official Letterhead]

Month XX, 2012

[Recipient Name]
[Title]
[Government Agency]
[Street Address]
[City, ST ZIP Code]

Dear**[Recipient Name]**:

The Guam Department of Public Health and Social Services (DPHSS) is preparing to conduct a Community Health Assessment (CHA), which is a collaborative process that includes regular and systematic collection, analysis and dissemination of information on the health status of a community. The Guam CHA will include the collection of information on the population health status, community needs and assets, and the information gathered will be used to plan, adapt and respond to important health concerns on Guam.

I am writing to you on behalf of the Guam DPHSS to request your support. The Guam CHA will involve a multi-step process that engages local government and community leadership in prioritizing health topics based on data, documenting and communicating results, planning for action and monitoring progress. As **[*enter Official's name or Government agency*]** you play an integral role in this process.

Earlier this year, DPHSS convened a Core Planning Team made up of representatives from various programs throughout the department to begin the planning process. Together, with input from community representatives and other programs, they identified the following vision, purpose, and desired outcomes for the Guam CHA:

Vision of Health:

All people of Guam will have access to affordable healthcare, choose to live a long, more productive life (body, mind and spirit), and live in a clean environment.

Purpose of the Guam CHA:

The Guam CHA will seek to describe the health status of all those who live on Guam. The primary purpose is to provide a centralized source of data, information and community strengths to support collaboration and coordination among DPHSS programs, community partners, policy makers and funders for a healthier Guam.

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By providing a centralized source of information and data about the health status of all those who live on Guam, our hope is to achieve the following:

- Provide policy makers with data and information to inform important public health policies, laws and legislation that promote health and wellness.
- Inform community health improvement planning through community engagement and greater collaboration and coordination of services.
- Strengthen coordination of services among community agencies and organizations through formal mechanisms, such as Memoranda of Understanding, data sharing agreements, and co-sponsored events.
- Strengthen DPHSS capacity through greater internal and external collaboration and coordination of services.

As mentioned previously, a Community Health Assessment is multi-step process, and one of the first steps is engaging local government and community leaders such as you.

We respectfully request **[*Choose one or more: letter of support, attendance at meeting, and assistance in collecting data.* This section should be very clear and include deadlines, meeting locations, dates and times].**

Should you have questions, or require additional information please don't hesitate to contact **[enter name and contact information].**

I am looking forward to your response.

Sincerely,

[Your Name]

Appendix C: Guam Stakeholders and Services by Essential Public Health

ESSENTIAL SERVICE	SYSTEM STAKEHOLDER
1) Monitor health status to identify and solve community health problems	• Guam Cancer Registry-Cancer Surveillance • BRFSS-Island Wide Health Status • HIV Surveillance/STD Data Registry • TB Epi Anywhere/TB Database ACCESS • State Epi Outcome Workgroup • YRBS-GDOE-Bureau of Nursing: orthotics • Global Youth Tobacco Survey • Patient Electronic Care Service (PECS)
2) Diagnose and Investigate health problems and health hazards in the community	• TB Responds/investigates outbreaks/nurse screening for GDOE • HIV/STD outbreak/care services through Ryan White Care services • Impact study-based on claims • Environmental Health-Avian Flu, H1N1 • CDC Outbreaks: Dengue/malaria • Supervised Treatment-under DOT • GMHA-Environmental Food and Waterborne outbreaks
3) Inform, Educate, and Empower people about health issues	• BCHS – Tobacco, Cancer, Diabetes, BRFSS, CLAS, MSS: C5HCN and CHCP • BCDC-HIV/STD/TB, Immunization, Media Release • BES – Bureau of Economic Security, Child Care Services, CCDF (Child Care Development Fund) • Nurses-Island Wide District Nursing • CBOs-GALA, Guam Diabetes Association, GMA, GNA, GMS, American Cancer Society, GDDC, GUAHAN project, Ayuda Foundation • Media-TV/Radio: KUAM, Sorenson Fafi, SDA (GAP) • Healthy Mothers/Health Babies • Breastfeeding Coalition • Prutehi Hao website • Project Kariñu/Project Bisita

ESSENTIAL SERVICE	SYSTEM STAKEHOLDER
4) Mobilize community partnerships and action to identify and solve health problems	• Guam Food Safety Task Force • HIV community planning group and Ryan White care group • Foster Families • Aging Disabilities Center (ADRC) • Catholic Social Services, SPIMA, Mayors Council of Guam • Healthcare providers • GDOE/GMH/Clinical/GMA, GNA
5) Develop policies and plans that support individual and community health efforts	• Food code – legislature • Programmatic interrelated • Nonprofits (GALA, GUAHANS) MOU/ • Child care standards • Guidance/medical advisory • Guam pandemic plan • Mass care/ Emergency Task Force • Guam eHealth Collaborative • Project Kariñu
6) Enforce laws and regulations that protect health and ensure safety	• Health Professional Licensing Office (HPLO) • APS mandate • Enforcement of (i.e. food safety) • Internal approach review existing laws, mandates • Proposed health planning and development act
7) Link People to needed personal health services and assure the provision of health care when otherwise unavailable	• Access to transportation • No health insurance • Language and culture • Socioeconomic status / can't afford
8) Assure competent public and personal health care workforce	• GC – Human Resources for health • UOG- School of Nursing assessment • HPLO
9) Evaluate effectiveness, accessibility, and quality of personal and population based health services	• CHC Boards • NGOS (ACS Guam association and other disease specific) • GCC – HRH
10) Research for new insights and innovative solutions to health problems	• UOG- Cancer Research center, CNAS, and CEODARS • Dept of Labor/Agency for Human Resource Development (Not connected but written in)

Appendix D: Community Engagement Outcomes

Community engagement strategies identified by DPHSS representatives and community stakeholders during the Site Visit training.

<table>
<tr><th colspan="2">WHO TO ENGAGE</th></tr>
<tr><td>Leadership
• Mayors Council
• Legislative, Executive and Judicial branches
• Government agencies
Community Stakeholders
• NGOs
• Faith-based groups
• Veterans, military
• Business
• Healthcare providers
• Universities, schools</td><td>Community At Large
• Consumers
• Residents
• Ethnic groups
• Family support groups
• Various target populations – teens, youth, adults, etc.
• FSM/FAS migrants*
• Clients served</td></tr>
<tr><th colspan="2">Engagement Strategies</th></tr>
<tr><td>Communications
• Social marketing (FB, Twitter, Government web sites)
• Community meetings
• Surveys, focus groups, health fairs, outreach activities, conferences
• Media – print, talk, etc
• Mayors mass mailing
Community Locations and Events
• Village outreach
• Churches, faith-based organizations
• Courts/police
• Schools
• Social Security Office
• Sporting events</td><td>Information Gathering
• Focus groups
• Surveys assessment and planning process
• Innovative methods to distribute surveys
• Online/web-based surveys/tools/FB
• Invite to PH meetings/conferences
• Personal stories/testimonials Incentives</td></tr>
<tr><th colspan="2">Community Strengths</th></tr>
<tr><td>• Networking
• Different ideas and perspectives (thinking outside the box)
• Learn from others
• Translators
• Planning team/ buy-in
• Ownership/part of the solution
• Taxpayers</td><td>• Outreach
• Access to others (culture/ethnic groups)
• Information/Data
• Resources (funds, manpower, services...)
• Lessons learned/best practices
• Firsthand knowledge of needs</td></tr>
</table>

• Part of workforce • Peer leaders • Resource for interpretation/translation	• Diversity/culture • Work in groups/support • Law-abiding
DESIRED OUTCOME FOR COMMUNITY ENGAGEMENT	
Service Outcomes • Improve our services • Assessing various components of the HC system (what's working) • Helps us think outside the box • Helps us focus on achieving a goal • Helps with collaboration • Helps to identify problems that may not be apparent in the data • Identify duplication of services and complement the existing services provided • Real understanding of the issues/problems • Cost savings • Collective involvement • Effective management of resources • Clear direction • Win/win? Yes!	*Community Outcomes* • Gives group/stakeholders empowerment and voice • Healthier community* • Experience the greatest disparities • Most vulnerable • Under-represented, insured/underinsured • Disproportionately represented in jails/prisons/courts/crimes committed, accessing PH services, unemployment • Empower to become responsible citizens to be more self-sufficient contributors to society • Eliminate disparities • Decrease reliance/dependency on PH services

Appendix E: DPHSS Assessment and Reports Inventory

REPORT NAME & HEALTH TOPIC AREAS	HEALTH INDICATORS TOPICS	DATA SOURCES	COMMUNITY ENGAGEMENT
Non Communicable Disease (NCD)			
2007 – 2012, Non Communicable Disease Strategic Plan TOPIC AREAS: • Physical Activity • Nutrition & Obesity • Tobacco and Alcohol Control	Refer to the Body of Report and Evaluation matrix to identify measurable health indicators associated with strategic goals	Detailed List providing data sources Primarily: BRFSS	NCD Consortium: DPHSS lead Steering committee: DPHSS NCD and DMHSA Working Groups/Community Forums 1) Physical Activity 2) Nutrition & Obesity 3) Alcohol Prevention & Control 4) Tobacco Prevention & Control
2007 – 2012, Guam Cancer Control Plan (strategic plan) TOPIC AREAS: • Prevention • Screening/Early Detection • Treatment • Survivorship/Quality of Life • Data-Research • Financing and Insurance • Policy and Advocacy	Example of prevention indicators include tobacco, betel nut, alcohol, nutrition/physical activity, infectious disease, environmental, agrichemical and cancer education	Guam Cancer Registry, Cancer Research Center of Guam, YRBS, BRFSS, Guam State Epidemiology Workshop, PEACE project, surveys, and program specific evaluation results	Cancer Control Coalition and DPHSS Guam Comprehensive Cancer Control Program
2012 Assessment of the Capacity and Needs for Diabetes and its Related Risk Factors: A Systems Perspective TOPIC AREAS: • Diabetes prevalence and associated risk factors • System of services for prevention and control of diabetes and other chronic	Diabetes prevalence Diabetes co morbidity with tuberculosis NOT Indicators but descriptive information: Governance, public health laws; Partnership/Collaborations; Research activities; clinical services; and support services	BRFSS, WHO report, STEPS survey, Morbidity and Mortality reports, NCD Strategic Plan, program specific summary and evaluation reports, Pacific Daily News, Community Health Center's Patient Electronic Care System	A CBPR approach was taken to develop this assessment, NIH grant funded. Focus groups and prioritization activities conducted

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REPORT NAME & HEALTH TOPIC AREAS	HEALTH INDICATORS TOPICS	DATA SOURCES	COMMUNITY ENGAGEMENT
diseases			
2010 Behavioral Risk Factor Surveillance System TOPIC AREAS: Major behavioral risk factor categories for non communicable diseases and conditions	Categories: alcohol consumption; asthma, cardiovascular disease, colorectal cancer screening, demographics, diabetes, disability, exercise, health care access/coverage, health status, immunization, injury, oral health, overweight and obese, prostate cancer, tobacco use, women's health. • NOT collected arthritis, cholesterol awareness, chronic health indicators, fruits and vegetable consumption, hypertension awareness, and physical activity.	Surveillance Data: Collected annually, cross sectional, telephone survey	Addressing major limitation to engaging community: PIHOA is piloting a in person administration
Communicable Disease			
2012 HIV Surveillance Report	• Incidence rates (age and ethnicity) • Proportion of death (age and ethnicity) • Residency • Transmission categories • Diagnosis (race/ethnicity, age, and gender) • Percentage Living with HIVAIDS • Cumulative rates for HIV/AID	Surveillance Data	This report has been used for the RWAP Statement of need and Part B report; HIV community planning group's reports (resource inventory and strategies), STS Prevention Report, and Category A HIV Prevention Report
Mental and Substance Abuse Behavioral Health			
2010 A Profile of Suicide on Guam TOPIC AREAS: Prevention	Mortality numbers, crude and age adjusted rates of death, disaggregated death and rates by age and gender; cumulative rate by age and ethnicity; ethnicity specific suicide rates; site; method; and intention to commit suicide	Office of the Guam Medical Examiner; Grant Suicide Database; in past Youth Risk Behavioral Surveillance System	Peer and Community Review Process: preliminary results presented to prevention and mental health stakeholders and community at large to obtain feedback
Demographics			
2010 US Census Reports for Guam	Population characteristics: sex by age, relationship, school enrollment, education attainment, sex by marital status, employment status, household income	US government collection of census data	Door to door survey/questionnaires
Maternal and Child Health			

Appendix E: DPHSS Assessment and Reports Inventory

REPORT NAME & HEALTH TOPIC AREAS	HEALTH INDICATORS TOPICS	DATA SOURCES	COMMUNITY ENGAGEMENT
2010 MCH Needs Assessment report TOPIC AREAS: • Socio Demographic Material • Child Health Indicators	Pregnant Women, Mothers, and Infants Under Age 1 • Infant Death: 3 indicators • Maternal Health: 7 indicators • Infant Health: 8 indicators • Population Denominators and Characteristics: 13 indicators Children and Adolescents • Preventive Health Measures for Children: 7 indicators • Injury Prevention and Safety Promotion: 8 indicators • Overall Population related to Children and Adolescent Services: 6 Indicators Children with Special Health Care Needs • 8 indicators	DPHSS's Office of Vital Statistics (hand count), WIC program, CSHCN Program and Immunization program; GMHA Office of Planning; Dept of Education Special Education, Early Intervention System and Head Start Programs; Guam CEDDERS, Guam Early Hearing Detection and Intervention ChildLInk Data system; Office of the Governor, Bureau of Statistics and Plans and Department of Mental Health and Substance Abuse (DMHSA) Focus on Life Project. NO Pregnancy Risk Assessment Monitoring System (PRAMS)	• Department of Education: – Guam Early Intervention System – Head Start Program – Parent Information and Resource Center – Division of Special Education • Department of Public Works Office of Highway Safety and Guam Police Department • Department of Youth Affairs • CSHCN in Special Needs Identification Program • Housing and Urban renewal Authority • Guam Memorial Hospital Authority Labor and Delivery Ward, OB Ward and Nursery; breastfeeding coalition • University of Guam • Anderson Air Force Base Family Health Services and US Naval Hospital • Not for Profit Organizations; Autism community Together, Catholic Social Services, Guam Positive Parents Together, Guam Developmental Disabilities Council, Guahan Project, Island Wide Breastfeeding Coalition and Sanctuary

Appendix E: DPHSS Assessment and Reports Inventory

REPORT NAME & HEALTH TOPIC AREAS	HEALTH INDICATORS TOPICS	DATA SOURCES	COMMUNITY ENGAGEMENT
2010 MCH Project Bisita Needs Assessment TOPIC AREAS: • At risk communities in Guam for MCH indicators • Quality and capacity of childhood home visits • Capacity to provide substance abuse treatment and counseling services	Example Risk Indicators: premature birth, low birth weight infants, and infant mortality, including infant death due to neglect or other indicators of at risk prenatal, maternal, newborn or child health; poverty; crime; domestic violence; high rates of high school drop outs; substance abuse; unemployment or child maltreatment;	• Office of Vital Statistics (hand count), Department of Education (Health Start and School Report Cards) • Housing and Urban Renewal Authority • Policy Department, Uniform Crime Report • Substance Abuse Epidemiology Profile	Limited current and available data per village Need for inter departmental data sharing
2011 Progress Report on a 2006 Action Plan for Human Resources for Health TOPIC AREA: Health Workforce	• Health care workers (type and ratio): Nurses physicians (primary care and specialists), allied health, mental health • Recruitment, Retention, and Continuing Education • Local capacity to provide trainings and scholarships		
Title XX, Consolidation of Grants Program TOPIC AREAS: • Child and Family Welfare • State Plan for Guam's child and family welfare services	This is a resource to use to develop indicators in this area, is chosen. Child protection, case management, foster care, family preservation and support, adoption home studies, custody home studies, childcare licensing and foster family licensing.		DPHSS Bureau of Social Services Administration
Comprehensive Indicators			
WHO Community Health Information Profile	• *Demographics* (area, population, pop growth, age, urban, birth and death rates, increase in pop, life expectancy, fertility rate) • *Socio-Economic* (adult literacy rate, per capita	Guam Statistical Workbook Guam cancer facts and figures	

Appendix E: DPHSS Assessment and Reports Inventory

REPORT NAME & HEALTH TOPIC AREAS	HEALTH INDICATORS TOPICS	DATA SOURCES	COMMUNITY ENGAGEMENT
	GDP, growth of per capita, Human Development index (no data source) • *Environmental Communicable and non communicable disease*; acute respiratory, diarrhea, TB, cancers, circulatory, diabetes, mental, injuries • *Leading causes of mortality and morbidity* • *Maternal child infant disease; Health Infrastructure* facilities, health, financing, human resources for health, early retirement impact on health workforce	DPHHS Office of Vital Statistic US Census Secretariat of Pacific Communities	

Appendix F: DPHSS Staff and Community Identified Health Indicators

CATEGORY	HEALTH PRIORITY TOPIC	INDICATORS	SOURCES
Demographic	Immigration statistics	– Number of Island raised or other place of birth	Birth Certificates, Census Data, YRBFS, Social Security, Vital Statistics, Statistical Yearbook
	Ethnicity	– Distribution of population by ethnicity	
	Age	– Distribution of population by age	
	Gender	– Distribution of population by gender	
Quality of Life	Type of Care: Elder, Hospice Palliative	– Percentage of population in care	Hospital Discharge Data, Surveys, Uniform Crime Report, Guam Memorial Hospital, Public Transportation Report, Land Management Parks And Recreation Report?
	Hospital Services	– Number of quality medical care services	
	Wellness & Healthy lifestyle	– Number of youth under 25 on dialysis – Number admitted to ER for lifestyle diseases such as diabetes/hypertension – Number of people who exercise daily at the gym – Number insured	
	Crime Prevention	– Number of crimes committed with in the villages	
	Transportation	– Number of public buses	
	Environment	– Number of public parks and open spaces	
Health Behavior	STDs	– Number of condoms distributed – Number of HIV individuals not in care	Surveys, YRBS, BRFSS, DPHSS Vital Statistics, Communicable Disease Report
	Tobacco Use	– Rates of tobacco use	
	Teen Pregnancy	– Number of condoms distributed	
	Alcohol and Drug Use	– Number of treatment services available – Percentage of population smoking ice	
Socio Economic	Basic Utilities	– Percentage of population with running water and electricity	Bureau Of Economic Security, School District Annual Reports, Hospital Data,
	Employment	– Number of people employed and what type	

CATEGORY	HEALTH PRIORITY TOPIC	INDICATORS	SOURCES
	Education	– Percentage high school graduates annually – Number of students who pursue higher education	Survey, Census Data
	Access to Care	– Number of uninsured – Percentage of women receiving prenatal care	
	Income level	– Number living below poverty level – Number of households headed by single women	
Non-Communicable Diseases	Obesity	– Youth obesity rates – Number of BMIs over 85th percentile – Heart disease rates	Non-Communicable Disease Report, Surveys, YRBS, BRFSS, DPHSS Vital Statistics, Communicable Disease Report
	Diabetes	– Youth obesity rates – Number of BMIs over 85th percentile – Number of cases of gestational diabetes	
	Heart Disease	– Heart disease rates – Obesity rates	
	Cancer	– Cancer rates	
Mortality	Infant Mortality	– Infant mortality rates	DPHSS Vital Statistics, Hospital (ER) Report
	Death from preventable disease	– Number of death by disease (heart disease, cancer, CVD, diabetes)	
	Accidental death/Injury	– Number of deaths due to accidental injury – Number of suicides on Guam – 5 year trend of leading cause of death	
Communicable Disease/Morbidity	STDs	– 5 year disease trends – Number of clients confirmed HIV positive referred to care – Number of pregnant women screened for HIV	MMWR Reports, HIV CTR Database (DPHSS), TB Data Base, DPHSS Vital Statistics,
	Tuberculosis	– Number of confirmed cases	
	Diabetes related deaths	– Number of deaths related to diabetes	

CATEGORY	HEALTH PRIORITY TOPIC	INDICATORS	SOURCES
	Co-morbidities (HIV/STD/TB)	– Number of cases determined	
Mental/Behavioral Health	Access to Mental Health services	– Number of mental health facilitates/programs	Vital Statistics (DPHSS), Crime Report, Hospital Report, UOG Suicide Program,
	Mental Disorders (Bulimia, Anorexia, Depression, Bipolar)	– Number of cases – Number of people being treated for disorders	
	Tobacco Use	– Number of people who smoke our use tobacco	
	Substance abuse	– Number of IV drug users – Number arrests for substance use – Number of adolescents treated for prescription drug abuse – Number of people who abuse alcohol	
	Suicide	– Suicide rates	
	Gambling Addiction	– Number of people diagnosed	
Environmental (Physical/Built)	Access to parks and open space	– Number of recreational facilities – Number of open (green) spaces – Number of trails and bike paths	DPW, Land Management, Parks And Recreation, GHURA, Guam Housing, Mayor's Office, Department Of Agriculture
	Access to fresh, healthy foods	– Amount of green space – Number of organic farms – Number of households with vegetable/fruit garden	
	Trash & Debris	– Number of tires around home – Number of trash-ridden areas	
	Accessible transportation	– Number of sidewalks – Number of accessible roads	
Social Determinants	Language/Cultural barrier	– Distribution of population by ethnicity – Distribution of population by language spoken in home	Census, Vital Statistics, Education Department Annual Report, Hospital Data, Crime Reports, Surveys
	Lack of Education	– Graduation rates by race/ethnicity	
	Lack of Care	– Percentage of people seeking care	

CATEGORY	HEALTH PRIORITY TOPIC	INDICATORS	SOURCES
		– Percentage of people with health insurance	
	Poverty	– Poverty rates – Unemployment rates	
	Human Trafficking	– Number of cases	
Other Topics	Disparity/ Inequality	– Percentage of over identification – Percentages of health disparities by race or ethnicity	No sources identified
	Oral Health	– Percentage of people with dental insurance – Gum disease rates	
	Autism	– No indicator identified	
	Aging Population	– No indicator identified	