

Community Health Assessment Guide

Book



NC Division of Public Health

North Carolina Department of Health and Human Services

Revised June 2014



STATE OF NORTH CAROLINA

Pat McCrory, Governor

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Aldona Wos, Secretary

<http://www.ncdhhs.gov/>

DIVISION OF PUBLIC HEALTH

Penny Slade-Sawyer, Division Director

<http://publichealth.nc.gov/>

With support from

State Center for Health Statistics

www.schs.state.nc.us/SCHS

Update contributions by:

Joy F. Reed, EdD, RN, FAAN

Updated June 2014

The NC Department of Health and Human Services does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provision of services.

Acknowledgments

We appreciate the numerous local health departments and their partnerships across North Carolina who have helped shape and refine this publication. Their enthusiasm, experience, and insight in community health assessment have greatly informed the development and updating of this Community Health Assessment Guide Book.

We gratefully acknowledge the joint work of the Kansas Department of Health and Environment, the Kansas Hospital Association, and the Kansas Association of Local Health Departments in producing the Kansas Community Health Assessment Process (CHAP) Workbook. Many of the tools and text have been adapted from the Kansas CHAP Workbook.

Thanks also to the Bureau of Community Oriented Primary Care in the Texas Department of Health. Several ideas and text from their Community Assessment Guidelines have been adapted for this Guide Book.

The original work undertaken to complete the Community Health Assessment Guide Book was funded in part by a grant (U82/CCU417938) from the Centers for Disease Control and Prevention (CDC). In 2007, the Office of Healthy Carolinians and Health Education was awarded another grant (1U38HK000047-01) for a second five-year grant cycle from CDC. The goals of this second grant are to complete the community health assessment model by integrating community health assessment findings with state level program planning and funding, to expand web-based data query systems necessary for data collection, to develop a comprehensive training plan to build public health workforce capacity in community health assessment skills, and to update tools and resources to assist communities in conducting a quality assessment.

Public Health - The science and art of preventing disease, prolonging life, and promoting health through organized efforts of society.

C. E. A. Winslow (1920)

Preface

Community health assessment (CHA) is the foundation for improving and promoting the health of county residents. **Community is defined as “county”** for the purposes of the North Carolina Community Health Assessment Process. The role of CHA is to identify factors that affect the health of a population and determine the availability of resources within the county to adequately address these factors. Through collaborative efforts forged among county leaders, public health agencies, businesses, hospitals, medical providers, academic centers, and others interested in community health, residents can begin to answer key questions such as: (a) “What are the strengths in our community?” (b) “What health concerns do county residents have?” (c) “What are the emerging health issues in the community?” and (d) “What other resources are needed in the county to address these concerns?”

Because it is good evidence-based public health practice, CHA is required of public health departments in the consolidated agreement between the NC Division of Public Health and local public health departments. Furthermore, it is required for local public health department accreditation through the NC Local Health Department Accreditation Board. (G.S. § 130A-34.1)

Community-based assessment is the first step in the community health planning process. As encouraged in the North Carolina Community Health Assessment Process, county residents take the lead role in forming partnerships, gathering health-related data, determining priority health issues, identifying resources, and planning community health programs. In this framework, the assessment process starts with the people who live in the community and continues their involvement through the implementation of strategies developed for addressing these problems. This way, community health assessment is done by the community rather than on the community.

The community health assessment process is a three or four year cycle (depending on whether a county has changed their schedule to align with their local hospital’s IRS requirements) which continually repeats itself. Year 1 is the health assessment process: planning the assessment, gather the necessary data and information and developing and submitting the community health assessment document. The first half of Year 2 is devoted to developing community health action plans and initiating their implementation. The rest of Year 2, Year 3 and Year 4 (if applicable) are occupied with implementing, reassessing, and evaluating the community action plans. At the end of Year 3 or 4, it is time to start the cycle over to do the health assessment process to evaluate the interventions of the previous community health action plans and to determine current health concerns and resources.

The Community Health Assessment Guide Book (Guide Book) and the County Health Data Book were created in 2002 and are updated regularly to provide communities a systematic means of engaging residents in assessing local concerns and assets with a framework and guidelines for conducting a comprehensive and collaborative community-oriented health assessment.

This Guide Book is a resource document or toolkit for local public health departments and other community agencies. If an agency or organization in the county has recently completed a comprehensive community health assessment, there is no reason to start from scratch and do another one. Several community groups like emergency preparedness agencies, and non-profit hospitals may be required to complete a community assessment as part of their certification process. This normally involves broad representation from across the community, which is very much in the spirit of the process proposed here. There is no need to form a new community health assessment team (Phase 1) if a suitable community group already exists. Use the tools and guidance in this Guide Book as needed to complement existing information. A Community Health Assessment Document (Phase 6) and the Community Health Action Plans (Phase 8) are required of local public health departments as part of the Consolidated Agreement. If a community health assessment has been recently carried out, the results of that assessment will help complete these two requirements. The appendices to the Guide Book are located on the DPH web site at www.publichealth.nc.gov/lhd/cha The Community Health Opinion Survey is on the website in both English and Spanish and can be downloaded and modified.

Community health assessment is an ongoing process. It is not possible to carry out all of the recommendations in this Guide Book in only a few months, particularly the surveys or small-group discussions like listening sessions or focus groups to measure community opinion. Budget enough time and money for the CHA process. Use the resources in this Guide Book to enhance understanding of the community's health and help plan a feasible, systematic approach.

The NC Community Health Assessment Initiative's goal is to build the capacity of communities to use data for public health program planning and policy making. To achieve this goal, Division of Public Health staff is working to connect and strengthen the assessment activities of local public health departments and other community organizations.

Since 2002, local public health departments have worked collaboratively with community partnerships to broaden the community health assessment process to serve the planning needs of the local public health department and the community as a whole. Collaborative assessments reduce data collection and the analysis required, reduce potential confusion caused by multiple studies of single counties, and broaden citizens' involvement in assessment activities. The NC Community Health Assessment Initiative supports those engage in this collaborative process with the skills and tools needed to assess the health of their communities, develop effective public health programs and policies, and evaluate the impact of such interventions.

Public health activities in the United States are delivered through multiple public and private organizations that vary widely in their resources, missions, and operations. Without strong coordination mechanisms, these delivery arrangements may perpetuate large gaps, inequities, and inefficiencies in public health activities.
Mays GP, Scutchfield FD. Improving public health system performance through multiorganizational partnerships. *Prev Chronic Dis* 2010;7(6). http://www.cdc.gov/pcd/issues/2010/nov/10_0088.htm. Accessed January 2011

Community Health Assessment Standards

The accreditation standards and components required by the consolidated agreement are listed in the table below. For a complete description of the required standards for community health assessment, see Appendix A.

Standards for Community Health Assessment			
Activity	Accreditation		Consolidated Agreement
	Essential Services	Benchmarks & Activities	
Phase 1 – Establish the CHA Team	4	1(1.1.a , b), 11	See Appendix A
Phase 2 – Collect Primary Data	1	1(1.1e, g, i), 11, 19	See Appendix A
Phase 3 – Collect Secondary Data	1	1(1.1b, c, d, g, h), 19	
Phase 4 – Analyze and Interpret County Health Data	1	1(1.1d, e, f, g, h, i, j, k), 11, 19	
Phase 5 – Determine Health Priorities	1	1(1.1.k), 11	See Appendix A
Phase 6 – Create CHA Document	3	1(1.1.k)	See Appendix A
Phase 7 – Disseminate CHA Document	3	1(1.3), 11	
Phase 8 – Develop Community Action Plan	4, 5	1, 11, 12, 13, 21, 22, 38	See Appendix A

For more information on CHA, check out *Frequently Asked Questions* in Appendix B. An annual statewide CHA Institute is conducted in February to provide training and assistance. In addition to the Institute, NC Community Health Assessment Initiative consultants are available to provide limited support to individual counties during the process.

Completed CHA, state-of-county’s health reports (SOTCH) and community health action plans **for 2014 and on send to:**

Branch Head
 Local Technical Assistance and 1915 Mail Service Center Training Branch
 1916 Mail Service Center
 Raleigh, NC 27699–1916
 Email: beth.murray@dhhs.nc.gov

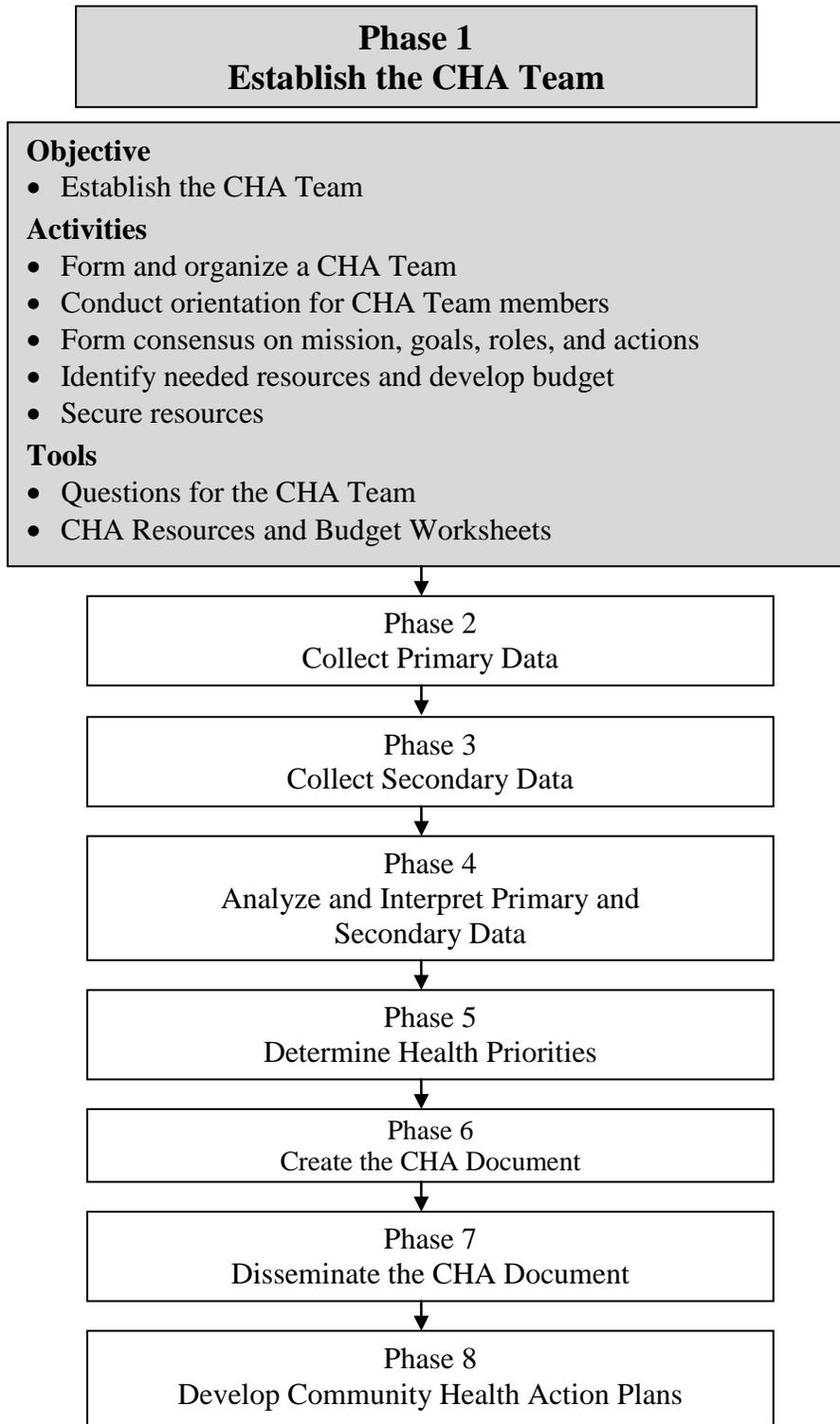
Reminder: Send one hard copy and one electronic (PDF or Word) copy of the CHA or SOTCH.

TABLE OF CONTENTS

PHASE 1: ESTABLISH THE CHA TEAM.....	1
CHA Team Model.....	3
CHA Team Orientation.....	4
CHA Resources.....	5
PHASE 2: COLLECT PRIMARY DATA.....	11
Health Resources Inventory.....	13
Community Health Opinion Survey.....	15
Small Group-Discussions.....	24
Key Informant Interviews.....	29
Asset Mapping.....	32
PHASE 3: COLLECT SECONDARY DATA.....	41
Secondary Data Sources.....	43
Secondary Data Needed.....	45
PHASE 4: ANALYZE AND INTERPRET COUNTY DATA.....	51
Analyze Data.....	57
Peer Counties.....	64
Putting It All Together.....	69
PHASE 5: DETERMINE HEALTH PRIORITIES.....	71
Share the CHA.....	72
Select Health Priorities.....	75
PHASE 6: CREATE THE CHA DOCUMENT.....	81
Suggested Outline.....	83
Future Plans.....	86
PHASE 7: DISSEMINATE THE CHA DOCUMENT.....	88
PHASE 8: DEVELOP COMMUNITY HEALTH ACTION PLANS.....	93

Appendices which house data resources, action plan, tools and definitions is located at <http://www.publichealth.nc.gov/lhd/cha>

NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Essential Services #4 Mobilize community partnerships to identify and solve health problems

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessment

Accreditation Activity 1.1.a Evidence of community collaboration in planning/
conducting assessment

Accreditation Activity 1.1.b Reflect the demographic profile of population

Benchmark #11 LHD shall convene key constituents and community partners to identify, analyze and prioritize community health problems/issues.

Consolidated Agreement Be a collaborative effort with local partners such as hospitals and local Healthy Carolinians Partnerships (if such exists).

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 1: Establish the CHA Team

Community health assessment (CHA) is a process to determine the health status, needs, and health resources in a county. In order for this to be meaningful, people from throughout the county must be mobilized throughout the process. While building commitment takes lots of time and energy, there is no better way to build support for public health interventions than to engage residents in identifying important health issues, developing strategies for addressing these issues, and initiating actions and interventions. Simply stated, change "...is more likely to be successful and permanent when the people it affects are involved in initiating and promoting it." (Thompson & Kinne, 1990, p. 45)

The first phase of the CHA process starts with forming a CHA Team. This CHA Team should have a broad representation of county residents and representatives from strategic agencies and organizations that have a good understanding of the county and are willing to commit the time and effort necessary to make the process a success. The development of the CHA involves the participation of a wide range of key community members who reflect all facets of the county. Members of the CHA Team can include representatives from:

- Business and industry
- Health care providers
- Public health
- School systems
- Media
- Local universities and colleges
- Civic and social organizations
- Local government
- Voluntary agencies
- Hospitals
- Other appropriate groups

It is very important that the CHA Team involve people who have significant influence in the county (e.g., elected officials), as well as the people who are most affected by health problems (e.g., residents of low-income neighborhoods). Because assessment can bring about changes in the community, it is essential to involve those who might be affected by any changes.

Other county residents, who are not serving on the CHA Team, can serve on committees like publicity or finance, participate in surveys, provide feedback on particular issues, or volunteer resources.

Most counties already have working groups with diverse membership in community partnerships. Such a group can serve as the CHA Team so there is no need to start one from scratch.

Value of CHA to the Community	
✓	To share the assessment process and findings with the county residents and to educate local residents, health care providers, and students regarding pressing health problems
✓	To empower community members to act on issues of concern
✓	To identify emerging issues, to provide data for deciding programmatic/organizational decisions, and to plan effective, collaborative interventions to promote better health
✓	To advocate for community change with politicians and other local decision-makers
✓	To promote collaboration and partnership among community members and groups
✓	To furnish a baseline by which to monitor changes
✓	To serve as a reference point and a historical perspective for future county assessments
✓	To provide a resource for activities such as writing grant applications
✓	To serve as a model for other counties who are planning an assessment

CHA Team Model

One successful CHA Team model has three levels of participants:

- **Advisory Group** – The Advisory Group is a large group of people who agree to serve as advisors or overseers for the project.
- **Work Group** – The Work Group can be a subset of the Advisory Group. The Work Group plans for collecting, analyzing, and interpreting the data, develops the CHA document, and then presenting the results to the Advisory Group for approval.
- **Project Facilitator** – The Project Facilitator is responsible for coordinating and leading the CHA process.

Advisory Group

The Advisory Group should have at least 10 members who are interested in health assessment and community planning and who agree to function as an advisory board or steering committee throughout the process. This group can be very large depending on the interest in the county and should include a broad representation of the residents of the county. Members need to understand the CHA process and decide on the overall goals. As advocates and leaders, they serve as the watchdog for the process, making sure that everything is going as planned, and act as advocates of the process in the county. The following are some responsibilities of the Advisory Group:

- Agree to meet for a defined period of time (e.g., at least 9-12 months)
- Review the CHA process materials
- Review statistics, survey data, and other forms of information about the county
- Review recommended goals and objectives
- Act as advocates for the CHA process in the county, including helping identify resources and support
- Work with local constituents to explain the process and provide feedback

Work Group

The Work Group may include four to 10 people from the Advisory Group. Although this group is smaller than the Advisory Group, it should also contain representatives of the county as a whole including representatives from both the local health department and local hospitals. This Work Group provides the majority of the work necessary to complete the process.

The Work Group needs available “support” staff. Support staff may be several volunteers or paid staff from a local agency who are willing to make copies, prepare mass mailings, enter data, schedule meetings, etc. The following are some duties of the Work Group:

- Lead the process and become the CHA process “experts”
- Establish and meet with subcommittees as needed
- Perform or delegate data collection work
- Interpret findings
- Develop the community health action plans
- Ensure that interventions are implemented and evaluated

Project Facilitator

The Project Facilitator coordinates the CHA process. This person is responsible for keeping the process moving and making sure that everyone is aware of the progress and tasks at hand. Within the CHA Team, however, there may be others assigned to lead subcommittees to complete special tasks. For example, one member may coordinate a group to conduct a survey. The following are some duties of the Project Facilitator:

- Assure broad representation of county residents and communication links to the county
- Keep the process moving, make sure tasks are completed on time and delegate tasks
- Coordinate CHA meetings
- Make sure the members of the Advisory and Work Groups have the information and tools needed to complete their tasks
- Coordinate access to support materials (e.g., equipment, work space, office supplies, etc.)
- Serve as the central contact person for the CHA Team, county residents, and media
- Serve as contact person to request technical assistance

CHA Team Orientation

An effective way to get a CHA process off the ground is for the local public health department and/or a community partner to host an orientation for the CHA Team members. This orientation will help to solidify the group and will provide a foundation for future work.

Start the orientation by asking CHA Team members their opinions about how the CHA process will benefit the residents in the county. *Questions for the CHA Team* in Phase 1 Tools provides a set of questions that are designed to help build consensus about what to do and how to do it. This exercise provides a forum for members of the CHA Team to voice their expectations and self-interests regarding the CHA process. These questions can also stimulate dialogue that allows the CHA Team members to reach a shared understanding of the goals and objectives of the CHA process. Record the group’s answers to these questions so that they can be distributed

along with the minutes of the meeting. Appendix B, *Frequently Asked Questions*, includes information to support this discussion.

The agenda should include a review of county demographics and special geographical or unique features of the county so that all members have a clear understanding of the county's make up. (Data Sources: State Center for Health Statistics, County Health Data Book, local convention and visitors' bureau, NC Department of Commerce, NC Employment Security Commissions, US Census)

CHA Team Orientation Discussion Items

- ✓ Provide an overview of the scope and the goals of community-based assessment
- ✓ Provide an opportunity for each team member to articulate his or her goals and perspectives regarding their own or their agency's involvement
- ✓ Discuss the skills needed to guide and support the CHA process and the potential contributions of resources, knowledge, and skills of each CHA Team member
- ✓ Clarify individual member's role to avoid "turf concerns"
- ✓ Give the group time to reach common ground and develop a clearly articulated mission or purpose
- ✓ Establish a budget and timeline for the CHA project
- ✓ Discuss possible resource, training, and technical assistance needs

CHA Resources

Motivated persons, who represent the county, will be needed to give their time and talents to the CHA process. The more people from the county who are involved, the more successful the CHA process will be. Have the CHA Team suggest people in the county who can assist with the process. The *CHA Resources Worksheets* in Phase 1 Tools can help the CHA Team identify organizational, individual, and financial resources.

The CHA process requires hard work, commitment of time, and a planned budget. The time, energy, and commitment of many organizations and individuals are needed because it takes a great deal of work to complete the data collection, review, and analysis, and the action planning tasks. Staff and volunteer time required to undertake an assessment should not be underestimated. The amount of time depends on the task and the availability of each person. Estimate as much as possible the time commitment needed so people understand what they are undertaking.

Develop a Budget

The financial resources needed to complete the CHA process depend on: (1) the size of the county, (2) the amount of "in-kind" resources (e.g., donated time, money, supplies, space, etc.), and (3) how extensive the CHA process is (e.g., if a survey is done, the number of collaborating agencies/ organizations). The CHA Team needs to set up a budget before beginning the process regardless of how simple the process seems and how many donations are received. See Phase I Tools for a *CHA Budget Worksheet*. Costs can be grouped into the following categories:

\$ Project Facilitator Support. A local project facilitator will be needed to coordinate the CHA process. Whether this person is full or part time depends on how much work is done by the Work Group and other community members and the length of time available to complete the CHA process. The project facilitator can be a health educator in the public health department and/or a staff person from the hospital or a community partner. A project

facilitator will still be needed to coordinate and oversee the work even if an external company is hired to facilitate or implement the CHA process.

- \$ **Office Space.** The project facilitator will need office space. This space can provide a central location where CHA Team members can review and analyze data, gather needed supplies, and leave information and materials for others. Look for space in the local public health department, hospital, or the offices of other agencies or community partners.
- \$ **Support Staff.** Staff will be needed for administrative support to duplicate materials, distributing surveys, inputting data, and many other jobs. Volunteers can provide this service but the equivalent of a half-time, paid staff may be necessary.
- \$ **Office Equipment.** Office equipment such as a computer (with appropriate software, an Internet connection, and an email account), telephone, fax machine, printer, and copy machine will be needed.
- \$ **Supplies.** Office supplies such as paper, envelopes, notebooks, pens, and pencils will be needed. These supplies can be donated.
- \$ **Meeting Space.** The CHA team will need a location for regular meetings. This space must accommodate the size of the Advisory Group comfortably. When engaging the county residents with information sharing and priority setting, the CHA Team may need to look for a larger meeting space that can accommodate a “town hall” type meeting.
- \$ **Communication.** Communication expenses for telephone, mailing, faxing, and videoconferencing will be needed.
- \$ **Travel.** Funds for mileage or overnight stays (e.g., to attend training sessions or meetings) to reimburse key Team members will be necessary.
- \$ **Public Relations.** A budget for placing advertisements or public service announcements in local newspapers, newsletters, or radio stations will be needed.
- \$ **Training and/or Consultants.** Training and/or consulting resources may be available within the public health department, community partners, educational institutions, and the NC Division of Public Health. Many resources are available at no cost. The community may choose to hire an outside consultant to perform part of the assessment (e.g., conduct a community survey).

Points to Keep in Mind When Working With the CHA Team and County Residents

- ✓ Recognize that one or two people will not be able to complete the CHA
- ✓ Assure all populations within the county are represented
- ✓ Develop a time line for the project
- ✓ Stay on target
- ✓ Obtain needed training for participants
- ✓ Coordinate appropriate office space and support staff
- ✓ Develop a method of keeping county residents informed
- ✓ Build consensus
- ✓ Reward participants for doing a good job
- ✓ Seek outside help in dealing with sensitive issues

Financial Support

The CHA Team needs to develop a plan to secure the needed funds. Be cautious about allowing one stakeholder to provide all of the needed resources (e.g., one local hospital supplying all of the needed funds, space, supplies, and support staff time). Even with the best intentions, the outcome of the assessment may be biased in favor of that stakeholder. Plan for several interested parties to contribute funding.

Work with the local governments – county commissions and/or city councils – to include funding in the annual budget for CHA. Ask for this funding to be recurring. The best way to secure this funding is to prove to the government officials the value of this project to the county and local agencies. Show them how the data gathered can be used for planning and evaluating programs that they fund and support.

CHECKPOINT

Before leaving Phase 1, check to see if the following tasks are completed:

- ✓ Formed a CHA Team with members assigned to Advisory and Work Groups and a Project Facilitator identified
- ✓ Held an orientation for CHA Team members
- ✓ Developed a CHA budget (see CHA Budget Worksheet)
- ✓ Identified additional CHA resources (see CHA Resources Worksheet)

PHASE 1 TOOLS

Questions for the CHA Team

1. Why are we initiating a community health assessment process in our county?
2. What do we want to know about the county's health and well-being?
3. How will the community health assessment change/benefit the residents of our county?
4. What issues of particular importance do we want to make sure to investigate?
5. Do we have equal representation from various and diverse groups of health-care consumers and providers?
6. How will our county make sure that all county resident's opinions—providers and consumers—are heard and respected?
7. How do our county residents deal with fractious or sensitive issues? How will the team deal with differences in opinion over these issues?
8. How will our county use the results of the community health assessment process in the development of county community health action plans, even if we are uncomfortable with the results?

Check out Appendix B: *Frequently Asked Questions* for additional questions and information.

CHA Resources Worksheet Examples

Potential Subcommittee Members - There may be people who don't have time to participate on the CHA Team, but who might serve on a subcommittee for a shorter period of time or help complete or offer expertise on a specific task or area. Depending on how the CHA Team structures the health assessment, subcommittees may be needed to focus on specific neighborhoods or townships, types of organizations, sub populations, or age groups. Alternatively, the subcommittees may carry out specific tasks, such as gathering secondary data, facilitating listening sessions or focus groups, or administering a survey. *(Note: Add rows)*

Name/Organization	Phone number/email	Potential subcommittee

Potential Staff Support. Staff, either volunteer or paid, will be needed throughout the project to stuff envelopes, make copies, enter survey data, etc. *(Note: Add rows)*

Name/Organization	Phone number/email	Potential Support

Potential Financial Aid. Many people, organizations, or businesses who cannot contribute time or human resources may want to contribute financially because they recognize the importance of the CHA process. *(Note: Add rows)*

Name/Organization	Phone number/email	Potential Aid

Potential Office Space, Equipment, and Supplies. Businesses or organizations often can donate office space, equipment (e.g., copy machine, fax machine, phone, and computer) and supplies (e.g. paper, envelopes, etc.) on a temporary or intermittent basis. *(Note: Add rows)*

Name/Organization	Phone number/email	Potential Contribution

Other. There may be resources that individuals or organizations might be willing to donate. *(Note: Add rows)*

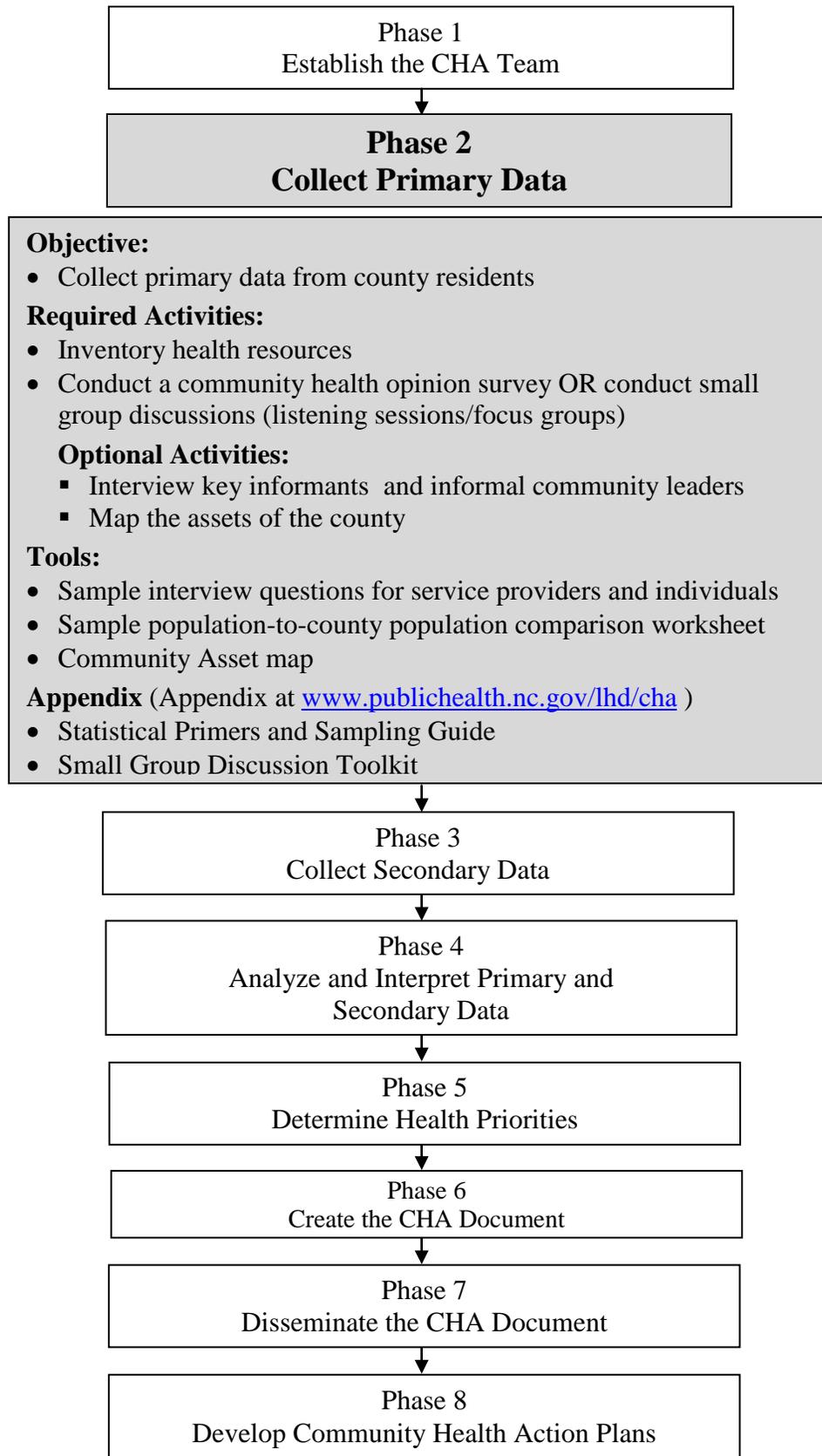
Name/Organization	Phone number/email	Resource/Donation

CHA Budget Worksheet Example

Item	Resources needed	In-kind Support	Other support (specify)
Staff (FTEs)		<i>LHD* will provide FT Project Facilitator for 1 year (apprx. \$50,000 salary + benefits)</i>	
Office space		<i>LHD will provide office space for Project Facilitator (apprx. \$1,000)</i>	
Office equipment		<i>LHD will provide computer, internet, and software for Project Facilitator (apprx. \$2,000)</i>	
Office supplies		<i>LHD will provide office supplies for Project Facilitator (appr. \$5,000)</i>	
Communication		<i>LHD will provide phone line and internet for Project Facilitator (appr. \$500)</i>	
Travel	<i>Travel to Community Health Assessment Institute for Project Facilitator and 2 members of CHA Team: Mileage: 200 miles * 0.485 * 3 people = \$291; Hotel: 1 night (\$125) * 3 people = \$375 Total: \$666</i>		
Public relations / Marketing	<i>Advertisement in the county newspaper for seven days: \$40 *7 = \$280</i>	<i>Local TV station will provide free PSAs for a month regarding the health assessment.(apprx. \$3,000)</i>	<i>County Communications Officer will provide free PSAs and announcements over public access channels.</i>
Training		<i>CHA Institute in February 2012 at no cost.</i>	
Contractual	<i>County Technical College for development of survey methodology and analysis of survey findings: \$3,500</i>	<i>(County Tech is providing this service at cost)</i>	
Printing	<i>Printing 30 copies of the full assessment: \$25 *30 = \$750 Printing 10,000 copies of the executive summary in color brochures: \$1,300</i>		
Total	\$6,496		

*LHD - Local Health Department

NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Essential Services #1 Monitor health status to identify community health problems

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessment

Accreditation Activity 1.1.e Collect/analyze primary data to describe the community health status

Accreditation Activity 1.1.g Use scientific methods for collecting and analyzing data

Accreditation Activity 1.1.i Identify existing and needed health resources

Benchmark #11 LHD shall convene key constituents and community partners to identify, analyze and prioritize community health problems/issues.

Benchmark #19 LHD shall identify populations that are not receiving preventive services or are otherwise underserved with respect to health care.

Consolidated Agreement Include collection of primary data at the county level

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 2: Collect Primary Data

While this phase is potentially the most time-consuming part of the CHA process, it allows the CHA Team to discover what county residents think about their health status, needs, and county resources. Plan at least three to five months to complete collecting and analyzing primary data. Many members of the county can be involved directly in this part of the CHA process and the results can provide a wealth of information. Adopt an inclusive approach and involve as many people as are interested in the process. Partnering with other agencies interested in doing a community assessment in the same year can lead to greater understanding of the health status and needs in the county. It also can lead to greater cooperation in implementing the community health action plans. Review past CHAs and State of the County's Health reports to see what has been done in the past and to identify trends.

The Community Health Assessment (CHA) Team will need to collect data directly from county residents because it is important to hear the community's voice. Data need to be collected from a wide variety of county residents to assure that the data represent all parts of the county population. Two types of data are required:

- Inventory of health resources
- Community opinion collected through a health opinion survey or small group discussions

Data that are collected firsthand are known as primary data. Data originally collected by someone else are secondary data. See Appendix C and D: *Statistical Primers* for additional statistical information. Secondary data can be collected by local groups or agencies like the local hospital, school system, law enforcement, etc. or by state agencies such as the State Center for Health Statistics (SCHS). Secondary data will be discussed in Phase 3.

Phase 2 presents various methods of gathering primary data and provides guidelines to help the CHA Team collect this data. The CHA Team may choose to collect data in one or more ways, depending on time, money, abilities of team members, and resources. If resources are limited, spend the available resources to do a thorough job of collecting data using ONE method

only, rather than trying to use multiple methods. Be sure to pilot test any tool with people similar to the target population before administering it. The CHA Team may use any of the tools in Phase 2 Tools as they are or modify them to better suit the county's needs. Always include space for people to provide their contact information if they are interested in hearing the data results.

Before beginning to collect primary data, check with other agencies and organizations to find out if there have been previous assessments or efforts to gather similar data. If so, obtain a copy of the assessments results; this will prevent a duplication of effort and provide information and possible insights into the county. Information from other sources is considered secondary data.

Health Resources Inventory (Required)

An inventory of health resources in the county should include information on: (1) current agencies and organizations that have some effect on health, (2) resources that are needed but currently lacking, and (3) brief narrative to explain how the current and needed resources influence the health of county residents. Determine if the county has any of the groups on the *Health Facilities Resource List* and the *Supportive Services Resource List* on the following pages. Add any other available resources in the county that are not mentioned in the two lists.

The method of gathering information for the inventory varies from one county to another. A good starting point is to list known resources and then contact others in the county to fill in the gaps. Gather additional information by interviewing or surveying representatives of the agencies/organizations in the county and by reviewing reports. Ask county residents where they go for health care.

One product that often grows out of this inventory is a Directory of Health Services. While not required, a directory can connect the county residents to organizations and agencies that provide health services. The following format is a suggested guide for collecting information and developing a written narrative describing each type of health resource in the county. The health resources inventory information can be organized in an Excel spreadsheet or Word document. *Sample Questions for Interviewing Service Providers* in Phase 2 Tools has questions that can be used as a basis for the inventory, key informant interviews, and asset mapping.

Suggested Health Resources Inventory Format

1. Complete name of agency/provider/facility
2. Location/Contact information including the name of a contact person, telephone number, website (if any), and mailing and physical addresses
3. Population served, services provided and their availability (e.g., hours and days)

Note: Some of this information is available from websites and annual reports of agencies. Also, some libraries have information and referral services that provide information about the agencies in the area. United Way often maintains a directory of local services. The statewide NCCARE-LINK Information and Referral Service can provide information on human service agencies in the county. www.nccarelink.gov

Explore other resources in the county that improve the physical, mental and social health and well-being of its citizens. The local phone book may list private fitness centers, volunteer organizations, and educational facilities such as the local technical school or community college.



Ask questions like:

- Are there restaurants, markets, and grocery stores with healthy and affordable food choices located in every neighborhood?
- Do the individual communities in the county provide adequate transportation so that people can get to healthcare and other social services?
- Are there enough high quality options for child and elder care?
- Are there groups that rehabilitate, help, and support those suffering from addictions and mental illnesses?
- Are there shelters and counseling resources for victims of abuse and domestic violence?

Health Facilities Inventory

Start with any current lists of health agencies and organizations that are providers of health services (e.g., local physician directory). Other resources listed below may or may not be available in the county but may be needed.

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • Hospitals, emergency rooms • Nursing or adult care homes • Mental health facilities • Community health centers • Rural health clinics • Emergency medical services • Home health and hospice care • School health services • Medical and health transportation • Nursing and medical school services • Dental care providers | <ul style="list-style-type: none"> • Homeless health projects and free clinics and pharmacies • Recreational facilities and fitness centers • Insurance providers • Pharmacy services • Ancillary services (X-Ray, Laboratory) • Foundations (e.g., Kellogg, RWJ, Duke Endowment) • Voluntary/private medical facilities • Substance and alcohol abuse services • Medical & health equipment suppliers | <ul style="list-style-type: none"> • Renal dialysis centers • Health care for jail inmates • Employer health benefits/services • Linkage and referral patterns with medical & health facilities outside of county (e.g., secondary & tertiary hospitals, specialty care) • Health promotion & prevention programs (e.g., health education, screening, immunization, & nutrition services) • Chiropractic services • Maternal and child care (e.g., midwife services/ birth centers) |
|--|---|--|

Health Providers Inventory

Combine health provider information with other health statistics to see whether there are enough providers to meet the county's needs. For example, if there is a high percent of tooth decay in 5th graders and a low dentist-to-population ratio, then the numbers suggest that the county lacks sufficient dentists to meet the needs.

Health-Related Supportive Services

Develop a descriptive inventory for each community, human, or social service agency not normally considered a direct provider of health services. Indicate the agency's contributions to the overall enhancement of the county's health. Add other resources available in the county.

Supportive Services Examples

- ✓ Chamber of Commerce
- ✓ Child Care Providers
- ✓ Economic Development Office
- ✓ Head Start Programs
- ✓ Law Enforcement Agencies
- ✓ Media
- ✓ Parks and Recreation
- ✓ Places of Worship
- ✓ Public Transportation Systems
- ✓ Senior Citizens Centers
- ✓ Social Services, including assistance with:
 - Food Security
 - Housing/Shelter
 - Medical Coverage
 - Home Heating/Cooling

Health Resources Inventory Analysis

Once an inventory of health resources is compiled, the CHA Team can assess the overall adequacy of the services, their integration into the county's effort to enhance healthcare, and determine needed improvements or gaps in care. Base this analysis on the facts collected about existing health resources, the opinions of agency customers, and the subjective judgment of the CHA Team members from their first-hand experience and knowledge as county residents. **The end result should be a brief narrative describing the methodology for collecting the data, the adequacy of current services in relation to the overall needs of the county, highlighting the areas that are not met.** The narrative can be included in the CHA report as two or three paragraphs in a separate section or can be integrated throughout the CHA into the related health topic areas. List any additional resources that could be developed to meet any unmet needs in the county and potentially included in future requests for funds. If the county plans to use the inventory on an ongoing basis, it is simple to update the information using a computer database.

Uses of the Community Health Resources Inventory Information (Optional)

- ✓ **Publish a Health Services Directory for Providers:** A directory of health services in the county may help providers facilitate referrals and encourage networking.
- ✓ **Publish a Health Services Directory for County Residents:** A directory (either published separately or as part of the CHA report) can be a good source of health resource information for community members. This directory can also be put on a website in a searchable format.

Community Health Opinion Survey (Required if not conducting Small Group Discussions)

Either a community health opinion survey or small group discussions are required for the CHA. The community health opinion survey is an effective method to discover what county residents think about their health status and the county that they live in. Everyone who lives in the county could be surveyed, but generally taking a sample of the population can save time and valuable resources. Random sample surveys are an excellent way to get the opinion of a large number of people in a cost-efficient way. **A well-designed, correctly sampled survey should be representative of the whole county population.** Other organizations and agencies (i.e., emergency preparedness, Healthy Carolinians partnerships, hospitals, United Way) in the county may be required to do a needs assessment survey. Explore the possibility of combining their requirements with CHA to maximize resources and minimize duplication of effort and impact on the community.

Surveys usually have short questions with predetermined response categories. They provide a standardized, written account of the answers given, which makes tabulating responses easier. These responses present interesting statistics or facts about the health and well-being of county residents surveyed. Use survey information along with secondary data to determine need for interventions and to set priorities. It is important to remember that the information collected is the opinion of the people surveyed and may not be representative of all county residents depending on how the participants were selected. Surveys do not offer an opportunity to examine complex issues in depth and the exact opinion of the respondent may not be represented because the choice of answers is limited. In-depth discussions on opinions of county residents on complex issues can be more thoroughly explored in small group discussions like listening sessions or focus groups.

Community Health Opinion
Survey in both English and
Spanish can be downloaded from
www.publichealth.nc.gov/lhd/cha

Why to Do a Survey

If the goal of primary data collection is to hear opinions from a wide variety of people and get a representative profile of the whole county, then a survey is a good method to use. The most efficient method to find out general information about the county is to sample only a subset of the county, rather than the entire county. It is too expensive and too time consuming to talk to every person in the county. The quality and usefulness of the data, especially the extent to which findings can be generalized to the entire county, will depend on how the sample is chosen. Choosing a sample requires a solid understanding of survey methods, so be sure to consult an expert if unsure of how to choose a sample.

In general, the larger the sample, the more confident the CHA Team can be about the numbers obtained (assuming the sample isn't badly biased). Typically, 10-20 percent of people surveyed will not answer the survey. Therefore, plan to survey extra people in case some people cannot or choose not to participate. The next sections will discuss standard practices for planning a survey and choosing a sample population.

Plan the Survey

In order to do a well-designed survey, start planning and designing the survey several months before it is time to collect responses. The first step is to decide who the target population is and then to design the sample selection, survey questions, and method based on this decision. This allows the CHA Team to gather the best data possible about the target population. Before collecting the data, decide how the data will be entered into a computer so that the survey responses can be designed for easy data entry. Also decide how it will be analyzed so that the CHA Team has all of the information needed when they get to the analysis stage. Be sure to budget enough time at the end of the survey to analyze the information collected, to create a report, and to set priorities. Collecting and entering survey data can be time-consuming, especially if there is a large team of interviewers and data entry people are not available.

Several major decisions that the CHA Team needs to decide before initiating a community health opinion survey are:



- Who do they want to survey (i.e., target population)?
- How will the survey sample be selected?
- What do they want to know about the county?
- How will the data be analyzed?
- When is the best time to schedule data collection?
(Think about weather, work schedules, volunteer availability, etc.)

Remember: community is defined as the entire county in CHA.

Target Population

The target population is the group of people whose opinions the sample should represent. Usually the target population will be the whole county for a CHA. However, a county that already has county-wide health survey data for that year may want to target certain neighborhoods, cities, or other smaller groups of people for its survey.

Sampling Frame

Choose people to survey from a *sampling frame* which is defined as a list of people or geographic area from which people are sampled. Select a sampling frame that represents the target population as close as possible. For example, if the target population is all adult county residents, the ideal sampling frame would be a list of all people over 18 who live in the county. The sampling frame should be comprehensive, complete, and up-to-date. Some large sampling frames include the initial list of people eligible for jury duty (these are already randomly sampled), voter registrations, property tax listing, or city land parcel maps. Check with the city/county planning office to see if they have a list of all residential addresses, since most people can be found at some type of residence.

The telephone white pages were useful for many years, but these are not reliable now because many people have unlisted numbers, no land lines, or no telephones at all. Some sampling frames may be off limits due to privacy issues (e.g., North Carolina driver's license records) or budget limitations (e.g., USPS Delivery Sequence Files). However, local government officials may be able to approve the use of jury duty lists, property tax lists, or county voter registrations for address-based sampling frames.

Sampling Methods

There are two types of sampling methods used to choose individuals to be surveyed: **probability-based** (random and systematic) sampling or **non-probability** (convenience) sampling. The main difference is that with probability-based sampling a statistician could calculate the chance of a person being picked to be in the survey; whereas, with non-probability sampling the factors influencing a person's chance of being selected are unknown. **Keep track of sample selection details so the sampling procedure can be reported along with the results.**

Probability-based - Random Sampling

The ideal method is *random sampling*. A sample is random if every person in the target population has an equal chance of being included. Because of this equal probability of selection, random sampling gives reliable results while sampling a smaller number of people than most other methods. When done correctly, random samples are *generalizable*; meaning that the survey results represent the opinions and needs of the entire target population. Random sampling can be used with any survey mode not just door-to-door surveys. Random sampling does not require any fancy equipment and can be simple in design or complexity, depending on the target population and sampling frame. If random sampling is selected, consult a survey expert to help develop an appropriate strategy for generating a random sample for the county. Contact the local college/university to see if they can provide assistance. A *Guide to Sampling for Community Health Assessments and Other Projects* is located in Appendix E. There are two types of random sampling: simple random sampling and stratified random sampling.

- ***Simple random sampling*** In simple random sampling, people are chosen randomly from the entire population. For example, if the names of 200 people were written on slips of paper, put into a hat, and mixed up, 20 names chosen from the hat would be a random sample of that group of people. An easier way to take a simple random sample of a large community would be to number and list all of the residential addresses in a spreadsheet, choose a set of numbers using a random number generator, and then surveying the households that correspond to the selected numbers. Excel already numbers the rows in each spreadsheet, so it is easy to number a list of addresses by putting each one on a separate row. Random number generators are available for free online (www.random.org or www.openepi.com), in sampling textbooks, or are programmed into some data management software.
- ***Stratified random sampling*** In stratified random sampling, the target population is divided up into similar groups (e.g., by race, gender, or geography) and then participants are randomly sampled from each group. This ensures that all groups in the target population are represented. The more similar the groups are, the less error there is in estimating statistics for these groups. This type of sampling is best when the goal is to report information on smaller groups within the county. For example, a simple random sample of a county with only five percent Hispanic population might not select any Hispanic residents to take the survey, just by chance. To be sure that the Hispanic residents are surveyed, a stratified random sample would be the best method for this county.

If using door-to-door surveys, minimize travel by dividing the county up into geographic regions such as census blocks and then sample within only some of the census blocks. Two-stage cluster sampling is when the geographic regions or clusters are first randomly sampled and then the people within each geographic cluster are randomly sampled. For more information, see *Two-Stage Cluster Sampling: General Guidance for Use in Public Health Assessments* in Appendix E.

Probability-based - Systematic Sampling

A systematic sample is a sample at an interval (i), where i is a number. For example, at an interval $i=10$, every tenth person would be sampled. Choose every i^{th} person from a list or every i^{th} house on a street, starting from x , where x is some randomly chosen number. Choose x by rolling dice, using a random number generator, or by pulling a number out of a hat. The sampling interval, i , is calculated by dividing the total number of people in the “list” by the sample size needed. For example, to sample 30 houses from a neighborhood that contains 150 houses, the sampling interval, $i = 150/30 = 5$. Throw the dice to get the starting point and if it rolls a 9, start at the 9th house from the entrance and survey every 5th house. To avoid bias, set some rules before starting the survey so that all of the interviewers are consistent in their sampling strategy, such as “Survey only houses on the right side of the street” or “Turn left at the end of every street.” If using a paper list, decide whether to sample people moving from the top down, or the bottom up.

Systematic sampling is easier to do than random sampling because only the first number needs to be randomly decided. It also evenly distributes the sample over the population list, but it does not give everyone in the population the same chance to be included in the sample as random sampling does.

Sample Size for Probability-based Samples

Before taking a sample of the whole county, decide how many people need to be surveyed. Several factors influence sample size including cost, time, and personnel available to conduct surveys, the type of sample, the prevalence (percent in the population) of the key characteristics of interest, and how much uncertainty the CHA Team is willing to have in their statistics. The population of the county also plays a role in estimating sample size. For very small counties, a larger portion of the population might need to be surveyed to get reliable results than for large counties. Also, if the CHA Team expects people’s opinions to vary a lot on an issue or are interested in looking at the results according to subgroups (e.g., age, race, gender), the sample size should be increased. Remember to plan ahead to survey extra people in case some people in the sample do not or cannot participate. There should be a balance between having a sample size large enough to be scientifically valid and keeping it small enough to be manageable. Again this depends on resources. A survey expert can help to find this balance.

To estimate sample size needed for probability-based samples, use the free and easy, web-based sample size calculator called Open Epi. Go to www.openepi.com and click on the word “Proportion” under the “Sample Size” folder, from the left side bar menu. Click on the “Enter” tab and enter the population size of the county, desired precision/confidence limits and the prevalence of the main health outcome of interest (ex: percent uninsured). For the Design Effect, enter 1 for a simple random sample or enter 2 for a two-stage cluster sampling design. Click on “Documentation” for more information on Open Epi. For a more complicated design, consult a survey expert or review the survey literature for a suitable Design Effect Factor.

Geographic Information System (GIS)

GIS mapping software is a sampling resource. It helps view and visualize data in many ways that reveal relationships, patterns, and trends in the form of maps, globes, reports, and charts. GIS maps can give a fresh look at the data from a new perspective that may reveal answers to questions and solutions to problems that were previously not obvious by looking at the numbers.

Some types of mapping software can conduct population-weighted cluster sampling, select sample sites, divide the selected sites among survey teams, and generate directions for navigating to survey sites. Data collection is usually conducted by teams of two persons each using handheld computers. The number of teams can be varied depending on the sample time and time available to conduct the survey. GIS information and training support is available for local health departments through the NC Center for Public Health Preparedness at nccphp.sph.unc.edu or through some of the Public Health Regional Surveillance Teams (PHRST).

Non Probability-based Convenience Sampling

Because random sampling can be complicated and expensive, the CHA Team may choose to do *convenience sampling*. In this type of sampling, respondents are included because it is convenient to do so. An example of convenience sampling is surveying people at selected locations (e.g., neighborhood shopping center, church choir). In non-probability based convenience sampling, the chance or probability of a person being included in the sample cannot be estimated. The main advantages of this survey technique are that it is relatively cheap and maybe less time-consuming. Major disadvantages of convenience sampling are: (1) the results are not generalizable to the target population; (2) there is no way to estimate how reliable or precise the data are; and (3) the sample is more susceptible to selection bias than probability-based sampling since the respondents who are present when the surveys are handed out and completed may be different from the county's population as a whole. For example, clients at a medical clinic might be sicker than the average person in the population. People surveyed at a shopping center might have a higher income, better transportation, or more leisure time than people who do not shop at that shopping center. Some opinions will be missed, so the results can only be reported as the opinions of the people surveyed (ex: "These results represent the opinions of people surveyed at XYZ shopping center on a Tuesday afternoon between 1pm and 5pm").

Sample Size

Unfortunately while convenience sampling is quick and easy, it is not possible to know all of the factors that make the sample different from the target population. Therefore, a convenience sample is greatly susceptible to bias no matter what the size. To reduce this potential for bias, at least 500 people should be sampled to hear from the widest variety of people possible within the convenience sample. The larger the sample, the more confident the CHA Team can be that the results at least represent the opinions of many people. As with any type of survey, survey extra people in case some people in the sample do not or cannot participate.

- ***Stratified Convenience Sample.*** Develop a sample that is, as much as possible, representative of the county's demographics. Make a list of the target populations to be surveyed, and then distribute surveys to groups where the target populations can be accessed (e.g. seniors at a senior center, men at a volunteer fire department, single mothers picking up their children from daycare).
- ***Systematic Convenience Sample.*** Another way of improving the convenience sample is to survey every x^{th} person that walks in the door of the sampling location or every x^{th} person who walks by the interviewer, where x is a randomly chosen number, as in systematic probability sampling. This technique forces the interviewer to choose people more randomly than if he or she could decide who to approach.

- **Quota Sample.** When there is no available sampling frame available, ask interviewers to gather a certain number of surveys in each defined group (e.g., geographic region, race, sex, age, or income level). Usually the quota for each group is set so that the percent of that group in the population matches the percent of that group in the sample. For example if there are 60 percent male and 40 percent female residents in the county, choose 300 men and 200 women to survey in a sample of 500 total residents. This is similar to stratified random sampling except that there is no guarantee that the sample within each group will be representative of all people in that group, since they were not randomly sampled.

If doing a convenience sample, a sample size of at least **500 people is recommended but it is more important that the sample mirror the population.** Taking a random sample of the population may allow a smaller sample size with more reliable results.

A Rough Guide for Sample Size	
<u>Sample Size</u>	<u>Adequacy for Analysis</u>
100	Too small for most purposes
200-300	Very small, may give rough estimates
400-500	Small, age group analysis will be difficult
600-800	Sufficient for all but complex analysis

For assistance in calculating sample size, contact local survey experts or the State Center for Health Statistics.



Results from convenience samples must be interpreted with caution. It is important to describe whom the sample and data represent because generalizations can be made only to persons who are similar to the convenience sample. Remember to keep track of sample selection details so the sampling procedure can be reported along with the results.

Survey Mode or Method

Several factors are involved in choosing a *survey mode or method*. The method used to disseminate the survey will vary depending on who is being surveyed and available resources. Surveys can be mailed, distributed by hand, conducted by telephone, in person, or by an interviewer, left with a drop box to be picked up from a specific location, administered in a group setting, or left in a public place where anyone who wants to complete a survey can pick one up and return it to the CHA team. Alternatively, a combination of any or all of these methods of distribution can be used. The following table lists survey modes and benefits.

Survey Mode		Benefits of Each Survey Mode							
		Likely to participate	Likely to answer all questions	Accessible to everyone	Low Cost	Quick	Anony-mous	Interviewee can ask questions immediately	Avoids Interviewer Bias
Self-administered	Mail				✓	✓	✓		✓
	Email				✓	✓	✓		✓
	Given out at location/ event				✓	✓	Some what	✓	✓
Interviewer administered	Telephone		✓					✓	

	Door to Door	✓	✓	✓				✓	
--	---------------------	---	---	---	--	--	--	---	--

One consideration is whether trained interviewers will administer the survey or if it is self administered. Advantages of self-administered surveys are that they: (1) can be completed at the convenience of the respondent and (2) can provide anonymity that allows people to be honest without fear of judgment. The disadvantage is that it is impossible to assure that the respondent understands the questions. Interviewer-administered surveys allow the participants to get clarification about questions, which may lead to more accurate data. Untrained interviewers may introduce interviewer bias. *Interviewer bias* is when the interviewer influences the answers by the way that he or she asks or responds to questions or when the interviewer’s interpretation of the response influences the reported answer.

Another consideration involved in choosing a survey mode is finding the most effective way to get county residents to participate. One of the biggest problems in conducting a survey is the low response rate. Good intentions don’t always lead to survey completion. If the people who respond are different than those who do not, the responses may not be representative of the group as a whole. This is called *response bias*.

Increase the number of people responding by rewarding people by having incentives for returning the survey. If literacy or internet access is a concern, then an interviewer-administered, face-to-face survey may be a better method than printed or web-based surveys. Follow-ups and reminders by mail or telephone may also be necessary for self-administered surveys.

The final factor to think about when developing a survey is how the CHA Team will analyze data after it is collected. If most community members have access to the internet or if the survey team has access to portable computers or personal data assistants (PDAs) for data collection, then computer-based questionnaires allow the responses to be downloaded and ready for analysis.

In order to choose how best to distribute or administer the survey, balance the pros and cons of each survey type with the resources available to the CHA Team.



There is no specific age range of the survey population but generally surveys include only adult residents. Parental approval is needed to survey children and teens.

**REMEMBER:
MISLEADING DATA IS WORSE THAN NO DATA!**

Survey Help

- The series “What is a Survey?” published by the American Statistical Association is available free of charge at www.whatisasurvey.info. Chapter 2 on “How to Plan a Survey” is especially useful and contains tips on how to budget and schedule time for a survey.
- Opt-In Surveys - The Numbers -A Run at the Latest Data from ABC's Poobah of Polling by Gary Langer <http://blogs.abcnews.com/thenumbers/2009/09/study-finds-trouble-for-internet-surveys.html>
- Relevant insights (business web site) Three articles by Michaela Mora www.relevantinsights.com/representative-sample
- The following books are easy to read, good resources for understanding sampling methods. Look for them at the local public or university library:

- Levy, Paul S., and Stanley Lemeshow. *Sampling of populations: Methods and applications* Hoboken: Wiley, 2008
- Satin A., and W. Shastry. *Survey Sampling: A Non-mathematical Guide*. Ottawa: Statistics Canada, 1990

Survey Questionnaire

The *Community Health Opinion Survey* is a standardized questionnaire in both English and Spanish that the CHA Team can use to collect data directly from county residents. This saves the time needed to develop survey questions. The questions in this survey have been pretested in previous CHAs. The CHA Team has permission to modify this survey to meet the needs of the county. The survey can be individualized for any county by including the county name and adding or deleting questions to suit the county’s needs. If additional questions are added or the current questions modified, the **new or modified questions must be pretested**. The NC Division of Public Health is interested in all counties using this standardized questionnaire for CHA so information can be shared and compared throughout the state.

English and Spanish
Community Health Opinion Surveys
are located on the website at
(www.publichealth.nc.gov/lhd/cha).

If the county is one of the smaller counties that only has regional Behavioral Risk Factor and Surveillance Survey (BRFSS) data, add a few BRFSS questions to the survey to gain useful information. Using these questions, which have already been written and pretested, saves time and valuable resources. Contact BRFSS staff members at BRFSSStaff@dhhs.nc.gov with questions and for advice on which questions are most successful at collecting good data in smaller counties. BRFSS questions are part of publicly available questionnaires, found under the “Questionnaires” tab of the NC BRFSS website (www.schs.state.nc.us/SCHS/brfss).

If it is necessary to develop a new survey, consult a person with survey experience. Such a person may be available in the county (e.g., employed by local government, a manufacturer, marketing research company, college, or university). The survey instrument should have at least the following components: introductory statement, respondent’s demographic information, and survey questions.

- **Introductory Statement** - If using interviewer-administered surveys, have the interviewer give their name and who they represent, the reason(s) for the survey, and how the information from the survey will be used. Let respondents know that their answers are confidential. If the survey is to be self-administered, an introductory statement is needed that states the above information plus how to return the survey to the CHA Team.
- **Respondent’s demographic information** - Regardless of how the survey is administered, the respondents need to provide demographic information such as age, income, gender, education, race, and ethnicity to assist in analysis. Use this information to check whether the sample is representative of the target population. Complete the *Comparing the Sample Population-to-County Population Worksheet* in Phase 2 Tools to compare the sample population to the overall population of the county. Typically demographic questions are put at the very beginning or very end of a questionnaire.
- **Types of Survey Questions**
 1. Open-ended Questions - Use open-ended question to get information on “why” or “how.” There is no definite set of answers to these questions. These should be used sparingly as

they take longer for the participant to answer and longer to code the answers.

2. Closed-ended Questions - Use closed-ended questions to get definite answers. These are usually quick and easy to answer and code for analysis.
 - *Dichotomous* - Respondents choose one of two answers. (e.g., yes/ no, male/female)
 - *Multiple Choice* - Respondents choose from four or five possible answers. Remember to tell respondents how many of these answers they can choose, especially when providing a long list of possible answers. (e.g., what are the five biggest problems in the county?)
 - *Numerical* - Respondents must respond with a number. (e.g., age, number of years)
 - *Categorical* - Respondents must answer from a set of categories and must select one.
 - *Ordinal* - Respondents must answer from a set of ranked answers. (e.g., I consider myself (1) Very healthy, (2) Healthy, (3) Somewhat healthy, (4) Unhealthy, or (5) Very unhealthy)
 - *Likert scale* - Respondents rate their feelings on a given statement on a scale. (e.g., The respondents are asked if they (1) Strongly Disagree, (2) Disagree, (3) Undecided or Neither Agree nor Disagree, (4) Agree, or (5) Strongly Agree.)

(Adapted from Encyclopedia of Educational Technology. http://eet.sdsu.edu/eetwiki/index.php/Main_Page)

Put the easiest questions at the beginning of the survey and questions on more sensitive topics later in the survey. Be aware of potential respondent's concerns and feelings by wording questions as sensitively as possible. Place questions about similar subjects together. Try to make the survey one that can be completed in 10 minutes or less. If the survey looks too long, people may put it down and never return to it. Once the survey is written, pilot test it with representatives of the target population to see if they have questions that were not anticipated.

Give clear instructions and ask direct questions—remember when someone is completing the survey in writing, they can't ask the interviewer, "What did you mean by this question?"

Conduct the Survey

If conducting an interviewer-administered survey, train the interviewers. This will save time and improve the accuracy of the data. Use feedback from the pilot test or initial surveys to improve the quality of the questionnaire.

Small-Group Discussions

(Required if not conducting Community Health Opinion Survey)

The CHA Team needs to decide if a small-group discussion will give the more useful data than a community health opinion survey. **The CHA Team must conduct small-group discussions like listening sessions or focus groups if they do not conduct a community health opinion survey.** The decision to use either a listening session or a focus group depends on the data needed and the ease in setting up groups. In either case, key constituencies in the county from different neighborhoods or geographic communities, different ethnic populations, and different age cohorts need to be identified to be sure that all constituencies are represented. It may be helpful to look at a map of the county to document not only the different geographic locations but also diversities such as ethnicity and age.

A community's definitions and understandings of health, illness, and services affect health attitudes, beliefs, and behaviors. Small-group discussions are an effective means of eliciting those definitions and understandings and identifying members' health care priorities. Small-

group discussions are best suited to collect qualitative rather than quantitative data. They allow participants to collectively articulate opinions and feelings, enable observers to understand the attitudes and beliefs that influence behaviors, and gather data about the county’s environment and policies that affect health. These build support and “buy in” for community-based projects aimed at improving health and healthcare access. Small-group discussions should concentrate on specific topics.

Small-group discussions require a lot of preparatory work. The CHA Team will need to conduct at least 10 group discussions in different areas of the county and/or with different populations. These discussions can be a combination of listening sessions and focus groups but each discussion must be at least one hour long and include the same seven to 10 questions. The questions asked during listening sessions or focus groups will depend on the data needs and goals of the CHA. See chart below for a comparison of listening sessions and focus groups.

	Listening Sessions	Focus Groups
Participants	<ul style="list-style-type: none"> • Participants know each other 	<ul style="list-style-type: none"> • Participants do not know each other.
Number of participants	<ul style="list-style-type: none"> • Generally larger number of participants than focus groups • No maximum • 10 different groups minimum 	<ul style="list-style-type: none"> • Small group 6-12 (8-10 ideal) • Minimum of 6 people (smaller group is a conversation) • 10 different groups minimum
Recruitment of Participants	<ul style="list-style-type: none"> • Pre-existing group e.g., volunteer fire men, social clubs, church choirs 	<ul style="list-style-type: none"> • Carefully recruited groups of people who have something in common and are brought together for the purpose of the focus group. (e.g., single moms, senior citizens)
Questions	<ul style="list-style-type: none"> • 7 to 10 with the same ones repeated at each session 	<ul style="list-style-type: none"> • 7 to 10 with the same ones repeated at each session
Advantages	Since participants know each other: <ul style="list-style-type: none"> • Good participation and attendance • Easier recruitment • Easy scheduling • High trust level among participants increases participation 	<ul style="list-style-type: none"> • Can recruit subjects based on their demographics • Can bring participants together based on their interest in talking about a health topic
Disadvantages	<ul style="list-style-type: none"> • Participants may not feel comfortable talking about sensitive health issues among people they will see again. • Pre-existing group dynamics may influence the discussion 	<ul style="list-style-type: none"> • Hard to get good participation • Tough to schedule • Low level of trust may hamper participation

Advantages and Disadvantages

Listening sessions or focus groups gather a depth and complexity of information not always found in other methods of data collection. Participants may stimulate each other to thoughts they would not have had individually. These can yield a greater array of unanticipated responses to a question compared to a survey. Participants will tell what is important to them and how they feel about a topic rather than simply responding to predetermined categories of responses. These small group discussions also offer the opportunity to get opinions from diverse groups in the county (e.g., unemployed or retired workers, minorities, single moms). If the CHA Team wants a number or a score at the end of the analysis, listening sessions and focus groups are not the best methodology. Advantages of Small-Group Discussions:

- Offers an opportunity to get opinions and detailed information that cannot be collected in closed-ended questions.

- Moderator has the opportunity to observe interaction and discussion on a topic. Nonverbal reactions can often tell observers much about participants' opinions on a topic.

Disadvantages of Small-Group Discussions:

- Analyzing the results requires time to transcribe the recordings or notes and give thought to the discussion. The responses to questions are often long and complex; translating this information into useful data is not easy.
- Difficult to explore multitude of topics addressed during limited time.
- Participants may feel intimidated as some individuals may be less responsive to discussing certain topics among a group of people than in a one-on-one interview.
- Multiple groups using the same seven to 10 questions must be conducted and analyzed.

Plan Small-group Discussions

The *Small Group Discussion Toolkit* in Appendix G includes guidelines for choosing a location, conducting a session, setting up equipment and supplies, methods of planning and conducting sessions, moderator introduction and guide to questions. Modify these tools as needed. These guidelines apply to either listening sessions or focus groups as they are conducted in the same way. The main differences between the two types of small group discussions are in the participant recruitment. If the CHA Team selects listening sessions, then they need to identify existing groups that they want information from and conduct listening sessions with each group. If the CHA Team chooses to conduct focus groups, they need to figure out the demographic group that they want information from and recruit participants via mailing lists, fliers or brochures in community centers, advertisements in the paper, by word of mouth, etc.

Role of the Moderator and Assistant Moderator

The moderator facilitates interaction between group members and makes sure that the discussion remains on topic in addition to making everyone feel welcome and valued. CHA Team members and volunteers can be trained to serve as moderators or experienced group facilitators can be recruited. These small-group discussions should be conducted in teams of two with the moderator asking questions and directing the flow of the discussion, while the assistant moderator takes extensive notes and operates the tape recorder, if one is used.

There are certain intentional or unintentional biases of the moderator that can affect the validity of the data. For example, greeting favorable comments with nods and reinforcing remarks, and responding to unfavorable comments with indifference or looks of discomfort can introduce personal bias.

Role of Participants

Participants agree to take part in listening sessions or focus groups for a variety of reasons. The organizer should make it clear what is expected of them before they agree to participate. Participants are expected to:

- Give their perceptions about the questions being considered, to voice their views

- Discuss their experiences and then interact with other participants in an effort to understand one another’s experiences (by comparing and contrasting their own experiences with others; they can become more explicit about their own views)
- Give an insight into their emotions associated with their perceptions
- Give group understandings and definitions of situations and events

Negative comments about people, great personal detail, or information about improper or illegal behavior are not appropriate in either listening sessions or focus groups. Ways to handle these behaviors are included in the *Small Group Discussion Toolkit* in Appendix G.

Participants Incentives

A small-group discussion can be a time-consuming for participants so it may be difficult to get enough participants. Incentives can help attract participants. For some individuals, the small-group discussion itself can be an incentive since it gives the participant a chance to voice his/her opinion regarding important issues. However, a stimulating discussion may not be enough to entice some individuals to spend time in a small-group discussion so incentives might be needed. Light refreshments and babysitting services may increase participation.

Set up Small-group Discussions

All of these sessions should be held at a place that is familiar to the chosen constituency such as a church, volunteer fire department, school, community club, etc. The Team will need to conduct at least 10 groups in different areas of the county and/or with different populations to get a broad representation of the county residents. Each session will need to be at least one hour long and use the same seven to 10 questions.

Conduct the Small-group Discussions

The purpose of a small-group discussion is to learn participants’ attitudes, beliefs, opinions, and ideas about the health of county residents. To maximize the possibility of obtaining responses from all members of the group, the moderator must control excessively talkative participants, encourage reserved participants, and try to elicit a wide array of responses from as many different members of the group as possible. The moderator must control a participant when the individual digresses from the topic being discussed or when the participant is monopolizing the session. The moderator may be able to redirect the conversation to a relevant topic or underscore that the group needs to hear what others think. This way, the moderator intervenes in the situation without criticizing the participant.

If individuals seem generally shy and reserved, the moderator can look for behavioral and nonverbal cues of readiness to take part. There are certain phrases that the moderator can use to make sure everyone is given a chance to speak, such as, “How did the rest of you feel about that statement?”, “Do any of you have other ideas on the topic?” or “Would any of you agree or disagree with that remark?” Make

Conducting Listening Sessions or Focus Groups

The methods for conducting listening sessions and focus groups are similar once participants are recruited.

- ✓ Focus on a specific topic or topics
- ✓ Use several carefully designed open-ended questions
- ✓ Use a trained moderator as facilitator
- ✓ Use a trained assistant moderator as recorder
- ✓ Hold meeting in a familiar setting
- ✓ Keep meeting to approximately 1½ hours long

eye contact with all participants to engage them in the discussion and encourage them to share their opinions. The moderator should never coerce any members of the group to speak.

Record and Transcribe Small-group Discussions

The assistant moderator is responsible for recording the discussion. A flip chart is useful so the moderator can record the key points of the discussion while the assistant moderator is taking notes on the discussion. Seeing the key points in writing may stimulate participants to add additional information, and the flip chart information is helpful when trying to transcribe the assistant moderator's notes. There are many benefits to recording these discussions. A tape or digital recording provides an accurate record of the discussion. If there is something unclear in the notes, the tape can clarify any ambiguity. Recording the discussions also allows the moderator/transcriber to go back and hear pertinent information that may have been missed in the notes. In addition, moderators can benefit by reviewing the recorded discussion so that they can improve their own technique

If using a tape recorder, explain to participants at the beginning of the session why it is important that the session be tape-recorded. State that no individual names should be mentioned during the discussion (to preserve confidentiality) and that the recording will be destroyed after transcription and completion of the document. Ask participants if they consent to having the discussion recorded. If they are reluctant, forgo the taping and take the best notes possible. Otherwise, participants will likely be reluctant to respond.

Transcribing small group discussions can be very beneficial, since it provides a complete picture of the participants' thoughts and ideas. However, it can take about four to six hours to transcribe a 90 minute tape. If the assistant moderator kept good notes, transcribing the session may be unnecessary. The assistant moderator should outline the conversation and note where there are good quotes for possible later transcription. It may be necessary to listen to the tape several times, in order to pick out sections that seem important and to transcribe those parts.

Analyze Small-group Discussions

Analyzing the discussions can be a great challenge. If the discussions have been transcribed, read all of the transcripts. If recordings are not transcribed, the moderator and assistant moderator can discuss what they heard and review notes from the flip chart, moderator, and assistant moderator. Group the information by key topics or areas of concern, such as schools, services for older people, child care, job opportunities, etc. Identify the different positions that emerged during the session. For example, the moderator can notice if there was a generally positive impression of a certain service that was being provided in the county.

To supplement the positions and themes that emerged, the CHA Team can find phrases from the notes, quotes, or transcriptions that support them. These can be used to illustrate information in the CHA document. If transcripts of the sessions have been typed, they can be entered into one of various computer programs that analyze qualitative data, such as atlas.ti. These programs are not free, but the cost may be affordable for some CHA Teams. These programs can help find common themes and discover the county's knowledge and opinion on the various topics discussed. Such software can be used to analyze any qualitative data, such as the transcripts of interviews or small group discussions.

When reporting the results from a listening session or focus group, do not interpret the data by a head count. For example, do not report that “85 percent of the respondents said -----.” These statements are inaccurate due to sampling bias and group dynamics. If the CHA Team wants count data, use a more quantitative approach (e.g., surveys and other objective measures).

If the CHA Team is interested in learning more about listening sessions or focus groups, contact a local college or university’s social sciences department, local human service agencies, or the Community Tool Box at the University of Kansas (<http://ctb.ku.edu/en/>).

Supplemental Method of Collecting Primary Data: (Optional - Not Required)

Key Informant Interviews

An interview is one of the simplest methods of collecting opinions or knowledge that may be of value to the assessment process. The interviewer can collect opinions, facts, assumptions, and perceptions from interviewees. For the purposes of this Guide Book, an interview is defined as a conversation that has a reason and is conducted between two people (either face-to-face or on the telephone).

Interviews can vary in length. A fact-gathering interview could collect the needed information in a short time, perhaps as little as fifteen minutes. An interview with a community expert designed to elicit in-depth information about a particular topic could take an hour or more.

Advantages and Disadvantages

Key informant interviews are structured conversations with people who have specialized knowledge. This is a way to collect complex information and to explore a subject in depth. The give and take of these interviews can result in the discovery of information that would not have been revealed in any other method of data collection.

Advantages of Interviews

An interview is the best way to have a precise and complete interaction of thoughts between the interviewer and the person being interviewed. Through direct conversation, the interviewer can ask what he/she wants to know, tell if questions are understood, and ensure the questions are answered. While it is important to develop a question guide to use throughout the interviews, another advantage of an interview is its spontaneity. Topics of importance that were not anticipated can be discussed. Sometimes a person will tell an individual what they wouldn’t write on a survey form or say during a group discussion.

Disadvantages of Interviews

Interviews are time-consuming. Busy people, both the interviewer and interviewee, may find it hard to spare the time for an interview. When the interview is completed, the interviewer must transcribe notes and if multiple interviews are being conducted, compile the results of what is learned from other interviews. Interviews are not an efficient method of collecting data from a large number of people.

Interviews provide the thoughts, opinions, and beliefs of the individual. These may not be representative of the community. The person being interviewed may be biased and try to influence the interviewer on behalf of his or her interests. If the interviewee doesn’t trust the interviewer or the interviewer’s organization, the information may not be accurate.

Interviewee Selection

Who is interviewed will depend on what the CHA Team wants to know. If they are trying to determine what health services are available and accessible in each part of the county, someone will want to interview a representative of each service provider. Usually some interviews are done with people designated as key informants—gatekeepers to the county who come closest to representing the views of county residents. Key informants might be community and health leaders, representatives from community organizations that have a connection to or an interest in the health of county residents or informal community leaders.

Potential Sources of Key Informants

Health & Welfare

Local Health Departments
Social Services Departments
Hospital(s)
Mental Health Departments
Dentists
Nursing Homes
Emergency Medical Centers

Government

City leaders
City/County Administration
Public Safety
Agricultural Extension

Media

TV/Radio stations
Newspapers

Education

Public Schools
School Boards
Parent Teacher Organizations
Colleges and Universities

Business & Industry

Farmer's Co-Op
Individual Businesses
Local Industries
Attorneys
Accountants
Chamber of Commerce
Real Estate Companies
Agricultural Organizations
Insurance Companies
Labor Union Representatives

Civic & Social Organizations

Girl/Boy Scout
Civic Clubs
Senior Citizens Organizations
NAACP
Libraries
Volunteer Organizations
Child, Adult, and Senior Care Centers
Non-Profit Health and Welfare Organizations

Religious

Churches
Ministerial Alliances

If the CHA Team wants to learn if county residents know about and use services that are available, someone will want to interview representatives living in various parts of the county. Consider interviewing people who are representative of the county population. For example, if 15 percent of the county is American Indian, be sure that American Indians are interviewed. This will ensure that a segment of the population is not omitted from the information gathered.

Informal community leader interviews are a very effective way for learning information about a segment of the community that might not be mentioned in interviews with key informants. Identifying these community leaders can be a difficult problem. One way to get names of community leaders is to ask key informants during their interview:



- Who are the persons not directly involved in community health who you think have the most influence in general community affairs?
- Whose approval is usually needed to get people in this community to accept or reject an important change?
- Which locally powerful people, not directly involved with health, can get things done or can stop local projects?

Prepare for the Interview

The structure of interviews can be formal, with specific, identical questions asked of each person interviewed or it can be less structured with a list of questions that guide the interview, but

with time for a more relaxed conversation. Comparison of interview results is easier if some structure and questions are repeated for most, if not all, interviewees. *Sample Questions for Interviewing Service Providers* and *Sample Questions for Interviewing Individuals* are found in Phase 2 Tools.

It is important for the CHA Team to determine exactly what they want to know from key informant interviews. This sounds simple, but it is an important consideration in writing interview questions. The interview questions need to draw out the information from the interviewee. Draft the questions and discuss them with people who have experience in conducting interviews. Pilot test the questions with community members or leaders. Decide if the interviews will be face-to-face or by telephone. There are advantages to each type of interview.

Face-to-face Interviews

Face-to-face interviews give the most flexibility in data collection. The interviewer knows who is giving the information (with a written survey, one cannot be sure who actually completed the form). He or she can set the time and place and be sure that the questions are understood. The interviewer can pick up on nonverbal cues about the interviewee's enthusiasm or comfort for the topic being discussed, follow-up with another question when something unexpected was said, and make sure that all of the proposed questions are answered before the interview ends. Many of the disadvantages to face-to-face interviews are included in the Disadvantages of Key Informant Interviews above. Time and money are usually the greatest problems to overcome.

Telephone Interviews

Telephone interviews are great tools for collecting information. Like face-to-face interviews, they offer flexibility and control over questions asked and answered. Of course, the interviewer cannot observe nonverbal cues but the expense and time constraints of traveling to each individual interview are avoided. This is especially helpful when the person to be interviewed is very busy or lives a distance away.

Telephone interviews should be shorter than face-to-face interviews. Most people don't want to talk on the telephone for more than about 10 minutes. Make an appointment with the interviewee for the telephone interview.

Conduct Interviews

Interviewing comes easier to some people than to others, but if the interviewer is prepared and genuinely wants to learn from the interviewee, the interview will likely go smoothly. The interviewer should begin with a self introduction and a brief review of the purpose of the interview and the CHA. Express appreciation to the interviewee for his or her time and involvement in the CHA process and explain that the interview will not exceed the time agreed on. Discuss confidentiality and assure that neither the interviewee's name nor position will be tied to the information provided and that others will not be able to link any information back to the interviewee.

Take good notes and include direct quotes, as they are valuable. Get permission to use quotes in a report to county residents or in the CHA document. Most interviewers take notes rather than use a tape recorder. If the interview is to be tape recorded, get the interviewee's permission. Realize that some people are not comfortable being recorded and may want the recorder turned off

for sensitive subjects. Make sure the tape recorder is working well so that it does not need attention during the interview which can cause a distraction.

At the conclusion of the interview, thank the participant again. Offer to provide the interviewee with a copy of the CHA document when it's completed. It is very important to send a

How to Conduct a Successful In-person Interview

- ✓ **Practice**—prepare a list of interview questions in advance. Memorize the questions. Rehearse; try lines, and mock-interview friends. Plan the location and ways to make the setting more comfortable.
- ✓ **Small-talk**—never start an interview cold. Try to put the interviewee (and yourself) at ease and to establish rapport.
- ✓ **Be natural**—even if you rehearsed your interview time and time again and have all your questions memorized, make it sound and feel like you're coming up with them right there.
- ✓ **Look sharp**—dress appropriately to the setting and the kind of person you're interviewing.
- ✓ **Be punctual**—Start the interview on time and limit it to the agreed upon time length unless the interviewee requests more time.
- ✓ **Listen**—present yourself as aware and interested. React empathically to what you hear.
- ✓ **Keep your goals in mind**—remember that what you want is to obtain information. Keep the interview on track and don't digress too much. Keep the conversation focused on your questions.
- ✓ **Don't take "yes/no" answers**—monosyllabic answers don't offer much information. Ask for an elaboration, probe, and ask why. Don't be afraid of a few moments of silence, it may also yield information. Ask the interviewee to clarify anything you do not understand.
- ✓ **Respect**—make interviewees understand that their answers are very important to you and be respectful for the time they're donating to help you.

Adapted from Vilela, Marcelo. Conducting Interviews, Community Tool Box: Part B, Chapter 3, Section 12.

thank-you note. If a presentation of the data is planned for after the end of the process, be sure to send the interviewee a notice of the time and place.

Analyze Interviews

The CHA Team should read the notes or transcripts from the interviews and verify that interviewees are the people that the CHA Team needs information from. If using interviews from general county residents, be sure that the interviewees represent the county as a whole or the desired subgroup (e.g., age, educational level, race, or ethnicity). Determine if any common themes or concerns emerge from the interviews. If so, note them and check with other methods of data gathering to see if they appear there as well. Find out if anyone said anything unexpected or surprising. If possible, one team member should summarize the results of the interviews, then document the information, and share it with others not involved in the analysis for their reactions and opinions.

Supplemental Method of Collecting Primary Data: (Optional - Not Required) Asset Mapping

Rarely do communities improve the health of their residents by concentrating on what they "need." This is the philosophy behind the work of Kretzmann and McKnight in their work *Building Communities from the Inside Out* (Kretzmann & McKnight, 1993). They suggest that instead begin with an inventory of health resources (which is required for CHA) and then add other community assets, strengths, and resources of individuals, associations, and institutions. This will provide a map of the assets of the community and is the assessment step necessary in the larger process of community health mobilization. This can be an important aid to the CHA Team as they

look at health problems and needs and then focus on identifying potential resources within the county to meet those needs. Since both assessment and interventions likely involve similar individuals and groups, asset mapping can help the community move from assessment to action.

The model proposed by Kretzmann and McKnight (1993) is founded on four central principles:

- Change must begin inside the community.
- Change must build on the capacities and assets that already exist within the community, rather than what is missing or problematic.
- Change is essentially relationship driven, constantly building and rebuilding supportive, reciprocal relationships between local residents, associations, and institutions.
- Change should be oriented towards sustainable community growth.

A *community asset* is a quality, person, or thing that is an advantage, a resource, or an item of value to the community. Comprehensive asset mapping looks at different types of assets such as individuals, institutions, organizations, governmental agencies, physical/land assets, and cultural opportunities. Before *mapping* the assets within a community, define the *community* to be mapped. The CHA process defines the county as the community but it may be useful to look at individual “communities” in the county. Community can be viewed as:

- *a locality* based on geography, or a physical location. (e.g., neighborhood, town or city)
- *relational* based as having a sense of common ties and investment (a relationship). (e.g., church groups, non-profit organizations, civic clubs)
- *a collective political power* based on common goals of making changes in society. (e.g., a group of families advocating for smoke-free parks and recreation sites)

Asset mapping should be inclusive, meaning that once community is defined, efforts should be made to include people who are truly representative of that community. This may mean that extra efforts are needed to identify and include individuals and groups who have been excluded from CHA efforts in the past. Parks and Straker (1996) assert that if we do not ensure broad-based community participation, community asset mapping will ultimately fail in terms of bringing about significant health improvement.

Asset mapping is a labor intensive process that is difficult to do on a large geographic area. The CHA Team may want to identify one or more individual communities in the county for this more intensive process to complement the county-wide assessment.

Asset Mapping Benefits

It can be difficult to move from a *needs assessment*, in which all of a county’s problems are identified, to an *action plan* to work on resident’s concerns. There may be little obvious connection between identifying the problems and planning interventions. Asset-focused assessments helps identify strengths in the community and can establish a link between health needs and interventions or solutions. Asset mapping has several other benefits. Community members may:

- Be encouraged by the number of assets available in the county.
- Be more interested in participating in the CHA process including creating action plans.

- Become more empowered to work together because they realize that they are *experts* about their communities. They know the culture, history, problems, and possible solutions that others might not realize.
- Be more interested in working on issues that they identify as priorities.
- Be more interested in information developed from within the community than information developed by people perceived as not part of the community.

Service providers and resources that are not actually part of the community can act as facilitators to help the community identify and mobilize community leaders and resources. When outside professionals, like health professionals, are partners rather than controllers of community health improvement efforts, the community is empowered to find its own solutions rather than becoming dependent on outsiders for the answers.

Community Asset Mapping

The fundamental philosophy of this process is that although communities may have health and social problems, they also have the ability and resources to address these problems. *Asset Map* in Phase 2 Tools is one way to diagram community assets. The steps of this process are:

- ☞ Map the gifts and resources (assets) that exist in the community including individuals, associations, and institutions
- ☞ Build relationships between the identified assets
- ☞ Mobilize the assets to benefit the community
- ☞ Convene a representative group to make a community plan
- ☞ Build ties and relationships with resources outside of the community

When planning asset mapping as part of CHA, consider four potential areas to assess.

1. Individuals

An individual inventory is an inventory of the personal skills and strengths of community members. Extra efforts should be made to identify assets in community members who have been excluded in past health assessments. The assets that these community members bring are called gifts of strangers by Kretzmann and McKnight. Identifying capacity finders and developers or the individuals who have leadership roles in community work is another part of this inventory. An example of this might be community people who have extensive knowledge and experience with home gardening which they add to childhood obesity reduction efforts.

An individual inventory to identify the capacity of community members can be done with a survey, small-group discussions, or key informant interviews. Questions could include:



- Who are the community leaders or individuals that the community looks to for guidance?
- What are some of the skills that people have within this community?
- What are some of the jobs that people have? If you work outside your home, what do you do?
- What are some of your skills and hobbies? Do you belong to any groups or clubs?

2. Local Citizens Association Inventory

A local citizen association inventory is an inventory of informal/formal groups of citizens with the goal of community involvement. All of the citizens' groups in the community should be documented and inventoried. Some examples of local associations are churches, neighborhood clubs, service clubs, and cultural groups.

Start an inventory of local associations and institutions in the community with the Health Resources Inventory developed in Phase 2. A questionnaire or small-group discussions can be used to supplement that information. Questions could include:



- What organizations (associations, clubs, and groups) are located in this community? How are community members involved in these groups?
- What organizations (associations, clubs, and groups) are located outside of the community but are available to community members? How are community members involved in these groups?
- In what ways do these different organizations, associations, and businesses work together?

3. Local Institutions Inventory

An inventory of the formal groups that may be controlled by those outside the community, but are available to those within the community, might include schools, police, hospitals, colleges, businesses, and banks. Questions could include:



- What businesses are located in this community, including home businesses?
- What official agencies and institutions are located in this community?
- In what ways do these different organizations, associations, and businesses work together?
- In what ways do businesses give back to the community?

4. Physical Assets Inventory

Survey the physical assets of the community by doing an inventory of structures in the community that can positively contribute to health and community improvement efforts. Examples could be parks, buildings, land for walking trails, and community centers.

The Health Resources Inventory developed in Phase 2 should have some of these physical assets listed. Community members can be questioned about what parks, buildings, schools, and community centers are located within their community and how they are used. Another way for the CHA Team to gain (or supplement) information about physical assets, businesses, and associations in a community is to actually walk or drive around the community and record what they observe. This is sometimes called a “Windshield Tour,” and can be a good way to document impressions of the physical environment through photos or notes.

Summary

Health professionals or the CHA Team can start with the known assets and resources, include community members, and link assessment to planning. Communities have the ability to solve their own problems with outside control minimized. If interested in more information about asset

mapping, contact Lisa Pullen-Davis at the UNC Center for Health Promotion and Disease Prevention at pullendavis@unc.edu.

CHECKPOINT

Before leaving Phase 2, check to see if the following tasks are completed:

- ✓ All primary data collection activities are assigned to subcommittees.
- ✓ Training is arranged for subcommittees.
- ✓ Primary data was collected by creating Community Health Resources inventory and by conducting either a Community Health Opinion Survey or listening sessions or focus groups.
- ✓ Data was analyzed and summarized.
- ✓ **(Optional)** Additional data was collected if necessary by conducting interviews and mapping the assets of the community.

Appendix at <http://www.publichealth.nc.gov/lhd/cha>

PHASE 2 TOOLS

Sample Questions for Interviewing Service Providers (Resource for Health Resources Inventory, Key Informant Interviews, and Asset Mapping)

Questions regarding the agency or organization itself:

- What is the “official” name of your agency or organization?
- What is your position in the agency or organization?
- How is your agency or organization funded? How certain is your agency or organization’s funding in the future?
- How are the programs in your agency or organization evaluated?
- Is there any literature or other information about your agency or organization that you would like to share?

Questions regarding the services/programs of your agency/organization in our county:

- What services does your agency or organization provide for the county residents?
- What is the demographic (e.g., race, ethnicity, age, sex,) composition of individuals that are most likely to use your services?
- What are some aspects of your organization that attract county residents to your services?
- How do county residents learn about your services?
- What are some of the barriers to accessing these services?
- What are some special accommodations that you provide for county residents who require special assistance (e.g., language/cultural or handicapped issues)?
- What, if any, are some possible methods to increase the use of your services by county residents?

Questions regarding our county

- What do you consider are some of the strengths in our county?
- What do you consider are some of the challenges for our county?
- What do you consider are the major health concerns for county residents?
- What do you consider are some of the needs for county residents that are not being addressed? In your opinion, why are they not being addressed?

Thank you for taking the time to share your information and opinions with me.

<p style="text-align: center;">Sample Questions for Interviewing Individuals (Resource for Key Informant and Community Leaders Interviews, and Asset Mapping)</p>

Thank you for taking the time to answer several questions about life in our county. I am from the _____ and am collecting information about our county. I'm very interested in hearing what you have to say about our county and about living in our county. I promise not to identify you with the answers you give so that you can speak freely. Do you have any questions before we begin?

Let's talk about our county first.

- What problems has our county had in the past five years?
- How did the county overcome them?
- What do you see as major health-related problems in our county?
- How would you try to reduce these health-related problems?
- What are the strengths of the health services available in our county?
- What health services are needed for children and adolescents that are not being provided in our county?
- What health resources exist for the older people in our county?
- What are some health services adults need that are currently not being offered?
- What do you think are some changes in health care that need to be made?
- What is the job market like here?
- What community organizations are active in our county?
- How do different races or ethnic groups get along?

Let's talk about how you feel about living here in our county.

- What do you like most about living here?
- What concerns you most about living here?
- What do you and others do to stay healthy?
- What health problems have you and your family had to deal with?
- What groups in the county do you belong to?

What other information that you would like to share about community health in our county?

Thank you for taking the time to share your information and opinions with me.

Comparing the Sample Population-to-County Population Worksheet

Does the sample of people in the survey represent the county? Do the responses on the survey give similar information as if everyone in the county was surveyed?

Fill in the table below to see if the survey respondents are similar to the county's population in terms of demographics:

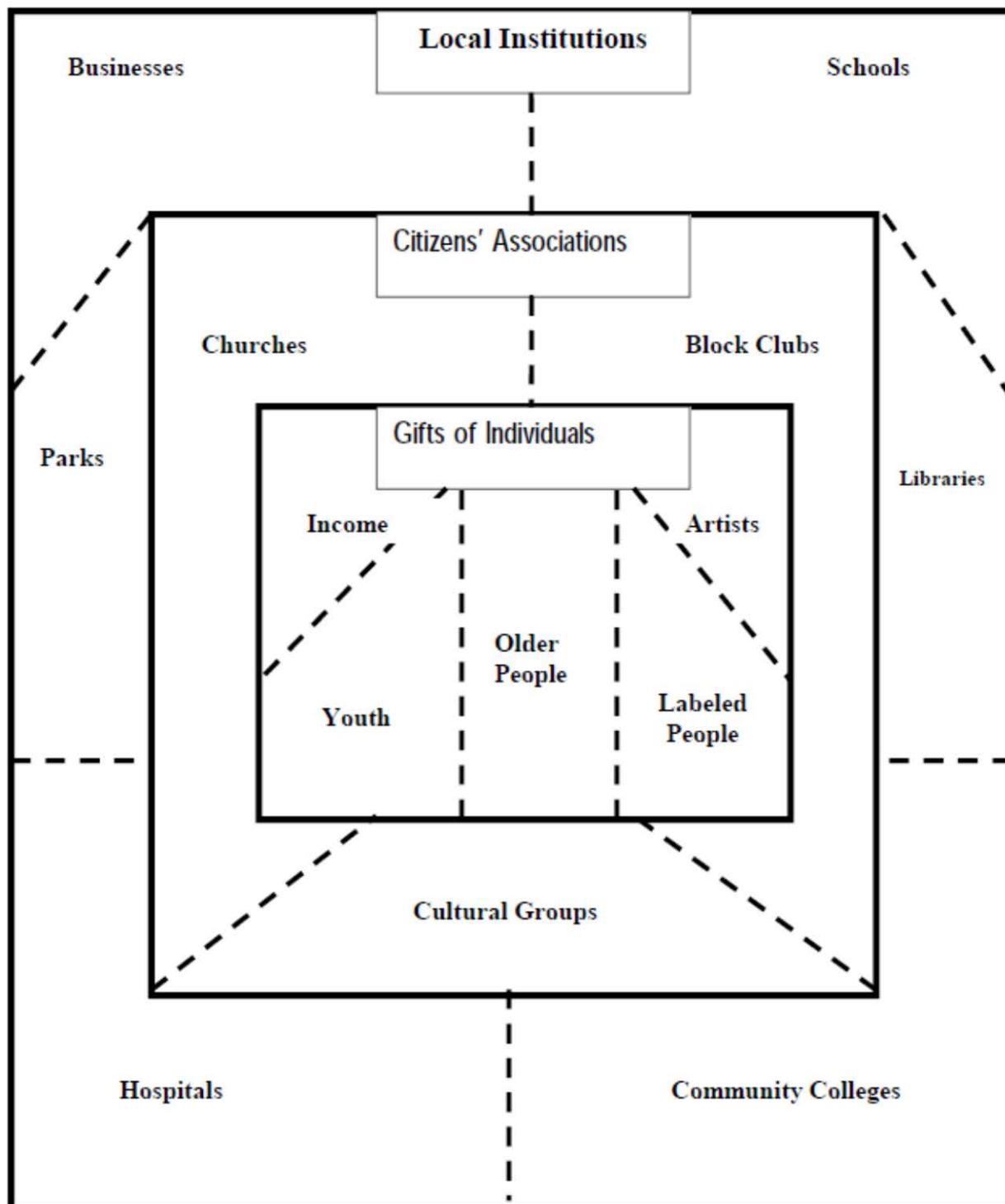
<i>Characteristic</i>		<i>Percent (%) of Survey Respondents**</i>	<i>Percent (%) of County Demographics*</i>
Gender	Female		
	Male		
Race	Asian/Pacific Islander		
	Black/African American		
	Native American		
	White/Caucasian		
	Other race		
Hispanic Origin	Yes		
	No		
Age	0-19		
	20-34		
	35-54		
	55-64		
	65-74		
	75 or older		
Highest Education Level	Less than 12 th grade		
	High school graduate/GED		
	Vocational training		
	Associate's degree		
	Some college		
	Bachelor's degree		
	Graduate/professional degree		
Household Income	Less than \$10,000		
	\$10,000- 14,999		
	\$15,000- 24,999		
	\$25,000- 34,999		
	\$35,000- 49,999		
	\$50,000- 74,999		
	\$75,000 or more		
Geography <i>(please specify units used here)***</i>			

* From secondary data such as the US census data or County Health Data Book

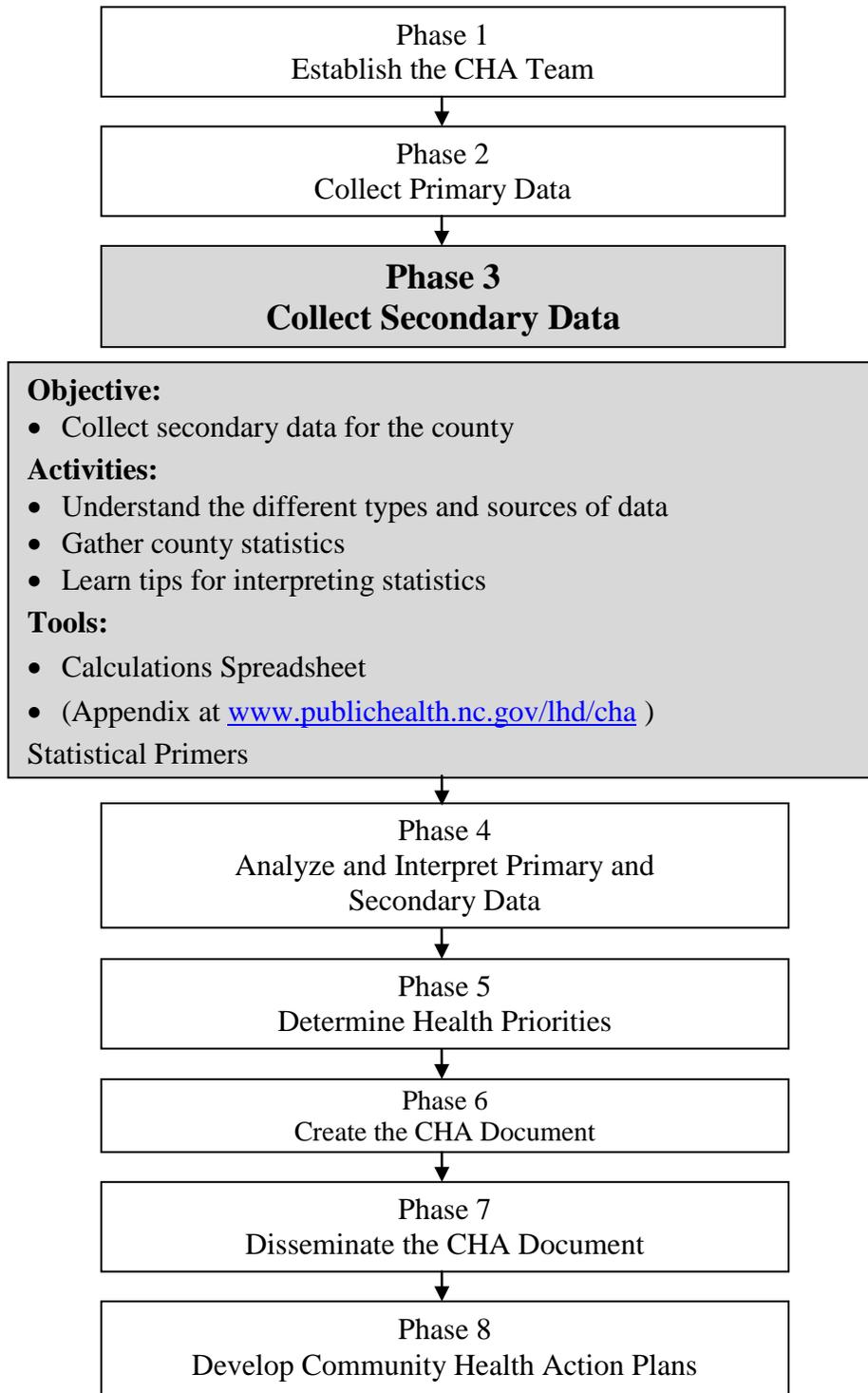
** From primary data that you have collected.

***Geographic units: Some examples of a geographic unit are zip code, census block, township, neighborhood, or fire district. Use whatever geographic unit is most relevant to your county, including any not listed here. Please specify which unit used, and list them (ex. List all zip codes in the county) in the second column.

Community Asset Map



NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Essential Services #1 Monitor health status to identify community health problems

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessment

Accreditation Activity 1.1.b Reflect the demographic profile of the population

Accreditation Activity 1.1.c Describe socioeconomic, educational & environmental factors that affect health

Accreditation Activity 1.1.d Assemble/analyze secondary data to describe the community health status

Accreditation Activity 1.1.g Use scientific methods for collecting and analyzing data

Accreditation Activity 1.1.h Identify population groups at risk

Benchmark #19 LHD shall identify populations that are not receiving preventive services or are otherwise underserved with respect to health care.

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 3: Collect Secondary Data

In this phase, the CHA Team will continue the CHA process by summarizing the statistics that are available for the county from other sources. These data are considered secondary data; they are not primary data for the CHA Team because another agency or organization has collected them. Secondary data by county is available from both state and local agencies and organizations. An important source of health information is the NC State Center for Health Statistics (SCHS) which has links to the online County Health Data Book and other sources of secondary data. Local data is available from a number of different sources like area agencies, organizations, and businesses.

Counties are collections of people, places, interests, values, experiences, traditions, and policies. By collecting information about the different aspects of the county, the CHA Team will understand more about the specific factors in the community that influence health in the broadest sense of the word. Data collection and analysis is more than gathering and examining lists of numbers. **It is crucial that the CHA Team interpret the data collected and decide what this data mean for the county.** It may help to think of the general definition of data as *information* that ultimately will assist the county in identifying problems and solutions.

Before collecting and reviewing county data, it is very important to ensure that the CHA Team has a thorough understanding of statistics. The data presented in the County Health Data Book are relatively easy to pull together and interpret, but doing the analyses carries some responsibilities in terms of drawing appropriate conclusions. It is especially important that the CHA Team consider data collected locally as these data were not collected for CHA. The SCHS *Statistical Primers* in Appendix C and D have statistical tips and covers topics like small numbers and age-adjusting rates. The CHA Team can contact the SCHS with questions concerning data interpretation.

Secondary Data Sources from the State Center for Health Statistics

The County Health Data Book is the main tool to help counties complete their assessments. The County Health Data Book is updated yearly with county-level data and is located on the SCHS website. The SCHS also provides links to other sources of data such as BRFSS (Behavioral Risk Factor Surveillance System), CHAMP (Child Health Assessment and Monitoring Program), and PRAMS (Pregnancy Risk Assessment Monitoring System) on its web site www.schs.state.nc.us/SCHS/data/databook.

Other Secondary Data Sources

Many CHA Teams who are undertaking a health assessment need a wider range of data than is contained in the County Health Data Book. The *Resource Guide for Community health Assessment in North Carolina* (Resource Guide) found in Appendix H contains information about where to find data from other sources collected by other state, local or federal agencies, academic institutions, and non-profit organizations. This Resource Guide provides access to community-level data that have not been traditionally included in SCHS publications. Examples include data on housing, economic status, environment, mental health, crime, and social services. Exploring this information will yield a more well-rounded view of the community and factors that may affect the health of its residents.

Collect Data for Comparisons

When collecting data for the county's CHA, be sure to also collect the same information on the state and peer counties for comparison. Comparing the county to the state will help the CHA Team to see how healthy the county is compared to the rest of the state on a certain health indicator. Comparing the county to peer counties will show how healthy the county is compared to similar counties in terms of demographic determinants of health. When comparing statistics between two populations (county and state or county and another county), be sure to use **age-adjusted rates** which account for differences between the population sizes and age distributions of the two groups. See the *Statistical Primer – Age-Adjusted Death Rates* in Appendix D for more information.

Local Secondary Data Sources

Gather local secondary data from area agencies, organizations, and the major business(es) on their services, clients, students, sales, events, etc. These data are kept by organizations for many reasons including managing businesses, serving the clients/students/customers, reporting profits and losses, and making future decisions unique to the organizations. They are not kept in the anticipation of a CHA document. Therefore, these data may not fit neatly into the data format developed by the CHA Team. Still they can prove valuable by providing a clearer or different picture of the county. The information kept by these groups may be confidential. The CHA Team needs to determine rules of confidentiality and assure that they will be followed so organizations will comfortably share their data and individuals will readily share their information. See the *Resource Guide* in Appendix H for suggestions of where to find local secondary data.

The possible sources of local secondary data are varied and the types of data may be unique. Again, think broadly. Ask if information is available and explain the CHA process and goals and

how their organization’s data might relate to health in the county. The following are some possible sources and examples of the types of data available.

Examples of Data from Other Agencies

- ✓ The local homeless shelter may conduct an annual local “point-in-time” count of the homeless
- ✓ The local “Smart Start” initiative may release reports on the state of the county’s children
- ✓ Local disability advocates/independent living centers may have done a disability assessment
- ✓ Local economic development office periodically releases data on the local economy
- ✓ Area colleges or universities may have done research studies in the county
- ✓ Local planning offices may have done environmental assessments
- ✓ Local senior citizens’ council may collect information on area seniors
- ✓ Local mental health, developmental disabilities, and substance abuse agencies may collect prevalence and treatment data for their catchment area.

Sources of Local Secondary Data

<p>Public School System</p> <ul style="list-style-type: none"> Enrollment numbers Graduation/drop-out rates Test scores <p>Library</p> <ul style="list-style-type: none"> Local history/Information unique to the county <p>Chamber of Commerce</p> <ul style="list-style-type: none"> List of businesses Employment/Unemployment rates Area economic data <p>Civic organizations</p> <ul style="list-style-type: none"> Sources of involved community members Lists of charitable projects <p>Religious groups</p> <ul style="list-style-type: none"> Membership numbers Lists of members and community needs <p>Employment Security Commission</p> <ul style="list-style-type: none"> Employment/Unemployment rates 	<p>Community college/local university</p> <ul style="list-style-type: none"> Enrollment/graduation numbers Fields of study available to students Academic research about the community <p>Law enforcement agencies</p> <ul style="list-style-type: none"> Crime incidence Arrests/convictions numbers Incidence of domestic violence Motor vehicle crash information <p>Non-profit organizations</p> <ul style="list-style-type: none"> Types of services performed Number of people eligible for service Number of people served Plans for the future <p>Large employers</p> <ul style="list-style-type: none"> Products made Economic impact to the community
---	--

Since several team members may be gathering data, establish a format to keep basic descriptive data about the agency, organization, or business. Collect enough information about the agency, organization, or business so CHA Team members can identify the source of the data, credit them with cooperation, thank them for their help, or return for more information or clarification.

Example of How to Organize Local Data

- **Name and description of agency/organization/business:** Record the name of the agency/organization/business, contact person, telephone number, address, days/hours of operation, purpose, and brief description of the agency/organization/business. Obtain a copy of the annual report.
- **Employees/directors:** List the number of employees, name of the owner/administrator.
- **Population served:** Identify the population that the agency/organization serves (i.e., geographic location, gender, age, race, etc.). Note numbers.

- **Data available:** Describe the types of data they keep. Obtain copies if available.

Review Local Data

Local data that have been collected must be reviewed to determine:

- What the data will add to the current knowledge of the county?
- Is any of the information surprising or shocking, or does it confirm what CHA Team members thought?
- If data from different sources conflict, try to determine why. When interpreting data, remember that the source or data collection methods may have influenced or biased the data.

Despite the potential for unknown biases, local data may save the CHA Team time and lead them to valuable resources in the county. Note which groups supplied data and remain open to including other local data discovered during the assessment process. Summarize findings but keep the original data available because information that may not appear helpful in the beginning may prove to be helpful later. Keep a list, possibly in a computer database, of those who contributed local data and involve them again if possible and practical. Provide these groups with a copy of the CHA along with a thank you letter for their assistance. Involving local agencies with the CHA process can be an opening to future partnerships with these agencies for funding, volunteers, or other types of support. A simple data request can be the start of a collaborative relationship for future projects.

Types of Secondary Data Needed

The following sections discuss the types of secondary data needed in order to meet accreditation standards and complete a CHA document. Suggestions on where to find the necessary data are included.



Always state the population data source and whether reporting a rate, percent, or count. When comparing numbers, be sure that the numbers come from the same source and time period.

Population Demographics (County Health Data Book)

Consider key demographic groups in the county. Demographics refer to the population size and characteristics. These can include race/ethnicity, age, and sex, but also other components of the population that have unique health issues. For example, look at the percent of people living in urban versus rural areas, increases in births or in elderly populations, or increases in certain ethnic groups. Knowing this information can help plan services needed by special groups in the population such as the need for translators, elder or child care, or rural health clinics.

The County Health Data Book shows population projections estimated from the latest Census for each year for North Carolina and each county by age-race-sex groups. Population estimates are based on the number of expected births, deaths, and net migrations. Compare the demographics of the county to the state, neighboring or peer counties using percents instead of counts (actual number of people). Percents are special kinds of rates that allow comparisons of how much of the population is made of one group of people, out of the total population, where a standard population size of 100 is applied to the rate.

Example: To calculate the percentage of minority females ages 15–44, add the numbers for the six age groups (i.e., 15–19, 20–24, 25–29, 30–34, 35–39, and 40–44), divide by the total county population, and then multiply the result by 100 to get a percentage.

$$\% \text{ minority females age 15-44} = \frac{(\text{females 15-19} + \text{females 20-24} + \dots + \text{females 40-44})}{\text{Total county population}} \times 100\%$$

Sub-population Data (County Health Data Book)

Gather data on sub-populations by race, gender, age, geographic areas, and socioeconomic status from the resources in the section on population demographics. Look for increases in the size of population subgroups which might indicate a need for more resources to serve the health needs of these subgroups. Data may not be available on small sub-population groups due to health data confidentiality issues. See Phase 4 for a discussion on how to interpret data based on small numbers.

Population Groups with Health Disparities (Cecil G. Sheps Center for Health Services Research)

It is important to summarize health disparities data in the county. This summary information will be used to help establish the CHA Team's priorities. Data on uninsured individuals can be found at the Cecil G. Sheps Center for Health Services Research. The NC Center for Minority Health and Health Disparities publishes reports on population sub-groups and health disparities with some detail on the county level. These and other sources of data on health disparities can be found in the *Resource Guide* in Appendix H.

Socioeconomic Factors

Important socioeconomic factors include average household income levels, unemployment rates, percent of kids on free or reduced lunch, and percent of people living below the poverty line. For this and other socioeconomic data, use information from websites for North Carolina state agencies like Employment Security Commission, Department of Commerce, Department of Public Instruction and Industrial Commission. Agency contact information is located in the *Resource Guide* in Appendix H. For county-level information on school expenditures and enrollment, higher education, and SAT scores, visit LINC or contact the local school administration. The US Census Bureau has county-level information on highest level of educational attainment.

Environmental Factors

The definition of environment can include the indoor and outdoor environment as well as the “built” or structural environment of a county. Generally, the aim of environmental public health is to maintain good air and water quality (with low levels of pollutants) and to monitor the safety and sanitation of food, lodging, pools, and child and elder care facilities. Because of the toxic effects of lead, be sure to collect data on positive blood lead tests in the county by visiting the Childhood Lead Surveillance site maintained by the NC Department of Environment and Natural Resources. For information on compliant inspections for food, lodging, pools, and daycares in the county, contact an Environmental Health Specialist at the public health department. Information on environmental tobacco smoke is typically not available by county; however, NC BRFSS collects information on smoking habits and tobacco usage.

The built environment is a hot topic in public health today. This includes the structures in place in a county that facilitate good health behaviors such as well-lit, safe walking trails that connect neighborhoods with shopping centers or affordable farmers' markets that give citizens easy access to fresh fruits and vegetables. The Parks and Recreation or City/County Planning departments may be good sources of information on the built environment.

Health Indicators

Pregnancies and Births (County Health Data Book)

- Pregnancies by County: Data include the number of induced abortions, live births, and fetal deaths (greater than 20 weeks gestation) by maternal age and race for both the total population of the state and counties and a subset of unmarried women. Early spontaneous abortions are not reported. Percentages can be calculated from these data to show the extent to which various age-race-marital groups contribute to a county's total pregnancies. Trends in teen pregnancy rates are used to evaluate the efficacy of sex education programs or to demonstrate the need for changes to current interventions.
- Live Birth Rates: These data show births over a five-year period expressed per 1,000 population by race for the state and by county.
- Pregnancy Rates, Fertility Rates, and Abortion Rates: These data show pregnancy rates, fertility rates, induced abortion rates, and abortion fractions for women ages 15 through 44. These statistics are reported separately for young women ages 15 to 19. Fertility rates represent only live births, whereas pregnancy rates represent all reported pregnancies regardless of outcome (i.e., live births, fetal deaths, or induced abortions). Early spontaneous abortions are not reported. The pregnancy, fertility, and abortion rates are expressed per 1,000 female county residents of reproductive age (15-44 years old), unless another age group (i.e. women ages 15-19) is specified.
- Indicators of Need for Family Planning Services: Two indicators, identified by the NC Division of Public Health, Women's and Children's Health Section, suggest the need for family planning services:
 - Short (less than 6 months) interval from last delivery to conception,
 - Number of births at risk due to high parity (number of children delivered) by age of mother (under 30 and over 30).

These two indicators are presented in separate tables in the County Health Data Book.

- Perinatal Health Indicators: Data are available on several indicators of perinatal health such as low birth weight, birth by Cesarean section, and prenatal care timing. Data on births to mothers who smoke while pregnant are also included.

TIP: Check out the *Basic Automated Birth Yearbook (BABY Book)* for additional data

The *BABY Book* provides tabulations for categories such as race, birth weight, prenatal care, maternal age, marital status, birth order, maternal education, and selected medical risk factor information recorded on birth certificates. At the SCHS website, click on "County-Level Data," then "Other Publications Containing County-Level Data."

Mortality (County Health Data Book)

- Fetal, Neonatal, Postneonatal, and Infant Deaths: Fetal, neonatal, postneonatal (deaths among infants aged 28–364 days), and infant deaths by race over a five-year time period are represented in separate tables. Because these numbers are often very small, be sure to look at the raw numbers as well as the rates. For counties with very few people, even pooling (adding together) five years of data cannot generate sufficient numbers to produce a reliable estimate; therefore these data should be interpreted carefully.

- General Mortality—Unadjusted Death Rates: Deaths are reported in the person’s county of residence, not the county where the death occurred. Unadjusted (crude) death rates show the all-cause mortality during a five-year period, expressed as resident deaths per 100,000 population. The unadjusted death rates for the county can be compared to the corresponding state rates to assess the county’s relative mortality conditions during the five-year period. Do not compare rates if the county’s unadjusted rate has fluctuated widely in recent years. Death rates for all causes should be fairly stable over time. Large fluctuations in all-cause mortality rates may indicate changes in the population demographics.
- Age-Specific Death Rates for the Leading Causes of Death: Age-specific death rates have been calculated per 100,000 population by age groups in a five-year period for the leading causes of death in each county. These are the causes of death with the highest death rates for this time period.
- Age-Adjusted Race-Sex Specific, Race-Specific, and Sex-Specific Death Rates by Selected Causes: The age-adjusted death rates are those that *would be expected* if the age composition of each county and the state were exactly the same as that of a “standard” population. These rates eliminate the effects of differing age compositions, and as such are indicative of the “risk” or “force” of mortality, rather than that of the absolute number of deaths. For example, a county with a high percentage of elderly adults would be expected to have a higher mortality rate than a county with a high percentage of children under 18.

TIP: Having trouble understanding crude versus adjusted rates?
Check out the *SCHS Statistical Primers* in Appendix D for a discussion on adjusted rates.

The County Health Data Book tables use the projected United States 2000 population as the standard for age adjustment, in keeping with the national practice. All rates are per 100,000 population. However, the rates in these tables are **not** comparable to the rates in similar tables that were published in editions of the County Health Data Book before 2000, which used the age distribution of the 1940 United States population. A comparison *can be* done between tables that were adjusted to the 2000 United States population standard. See *Statistical Primers – Age-Adjusted Death Rates* in Appendix D for further discussion of this issue.



In assessing the relative mortality conditions of the county, be particularly aware of rates based on small numbers of deaths. Interpret these rates cautiously since random fluctuation in the rate may make any rate comparisons risky.

Morbidity (County Health Data Book)

- Communicable Disease Case Rates: Information is available on the number of cases and incidence rates of AIDS, gonorrhea, and syphilis per 100,000 population for a five-year period in the state and for each county. An incidence rate is the rate of newly diagnosed cases in the population over a certain time period. Again, be cautious about drawing conclusions from rates based on small numbers of cases.
- Age-Adjusted Cancer Incidence Rates: County and state level data on age-adjusted cancer incidence rates per 100,000 are available for various types of cancers for a five-year period, adjusted to the 2000 United States population. The rates in these tables are **not** comparable to the rates in editions of the County Health Data Book (before 2000) that were adjusted to the age distribution of the 1940 United States population. Compare rates to tables in editions that

were adjusted to the 2000 United States population. Note that the rates for sex-specific cancers (i.e., prostate and female breast) use either male or female population in the denominator and therefore, are not comparable to other cancer incidence rates. For these rates, the population at-risk is limited to the people are able to get the specific cancer.

- **Inpatient Hospital Utilization (Discharges, Admissions, and Charges):** The County Health Data Book has a link to information related to inpatient hospitalization utilization for each year. Note that the inpatient hospitalization information by the year is broken down by county of residence and major diagnostic categories. Many of these categories correspond to the groups that are used for mortality data in the SCHS publication *North Carolina Vital Statistics Volume 2: Leading Causes of Death*. Because these data are listed by county of residency only for North Carolina residents served in North Carolina hospitals, these numbers may be smaller than the actual usage in counties that border other states.

TIP: Check out the NC Division of Public Health's website at www.asthma.ncdhhs.gov for additional data and information on **asthma** in North Carolina,

General Health Status (SCHS)

- **Adult Health:** The Behavioral Risk Factor Surveillance System (BRFSS) collects a wide range of data about risk factors and health behaviors such as smoking, physical activity, body mass index, nutrition, and high blood pressure. Data on screenings for breast cancer (mammograms), cervical cancer (Pap test), colorectal cancer (colonoscopy), and prostate cancer (prostate exam) are also available for most years. BRFSS compiles data for each region of North Carolina and for some counties with a large enough sample size. Data can be accessed through the SCHS website by clicking on the link to BRFSS.
- **Children's Health:** The Youth Risk Behavior Survey (YRBS) monitors priority health-risk behaviors and the prevalence of obesity and asthma among youth and young adults. YRBS compiles data for each region of North Carolina and for some counties with a large enough sample size. Data can be accessed through the SCHS website by clicking on the link to YRBS. County-level data on the health and well-being of children can be found at the North Carolina Action for Children website and through KIDS COUNT Data Center which is operated by the Annie E. Casey Foundation.

Health Care Facilities and Providers (Cecil G. Sheps Center, SCHS)

Information on health care providers can be found at the Cecil G. Sheps Center at www.shepscenter.unc.edu. The SCHS also provides reports every few years on staffing of local health departments. The North Carolina Center for Geographic Information and Analysis (CGIA) provides a free online mapping tool called NC OneMap. One Map (www.nconemap.com) has the capability to map hospital locations, transportation, and other county services, and can be used to see which areas are far from health care services.

Parks and Recreational Facilities

Local parks and recreation organizations list parks and community recreational centers. The town or city planner may also be able to provide a map of the greenways, walking trails, and sidewalks. Record the locations and utilization of the local Ys. Find out if the county encourages physical activity among the county residents through the placement of safe and accessible exercise facilities.

Smoke-free Facilities

All public school districts and restaurants in North Carolina are now smoke-free. Many counties have or are advocating for smoke-free policies in hospitals, health departments, and other public buildings and worksites. The NC Division of Public Health, State Tobacco Prevention and Control Branch has county-level data on healthcare costs associated with smoking and smoke-free worksites including health and social services departments.

CHECKPOINT

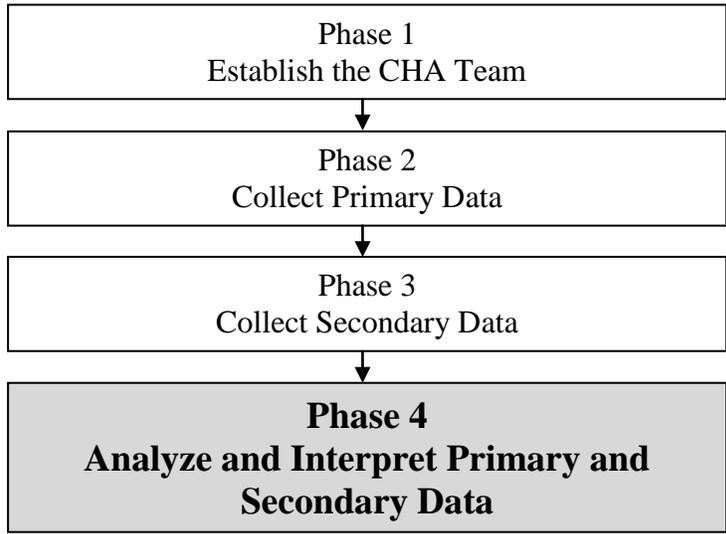
Before leaving Phase 3, check to see if the following tasks are completed:

- ✓ Arranged training for CHA Team members regarding statistical analysis and data interpretation.
- ✓ Reviewed *SCHS Statistical Primers* in Appendix C and D.
- ✓ Gathered and reviewed all necessary secondary data from the County Health Data Book.
- ✓ Checked out the SCHS web site and the Resource Guide in Appendix H for other types of data to get a well-rounded picture of the county.
- ✓ Gathered data from the county, the state, peer counties, and neighboring counties (optional).
- ✓ Gathered data on changes in the county's health over several time periods.

PHASE 3 TOOLS

Download the Excel spreadsheet, *Phase 3 Calculations Spreadsheet*, under CHA Resources at www.publichealth.nc.gov/lhd/cha. This spreadsheet is pre-programmed to calculate the percent differences between the county and a neighboring county or peer counties, the county and the state, and trends over time within the county with any data that entered.

NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Objective:

- Analyze and interpret primary and secondary county data

Activities:

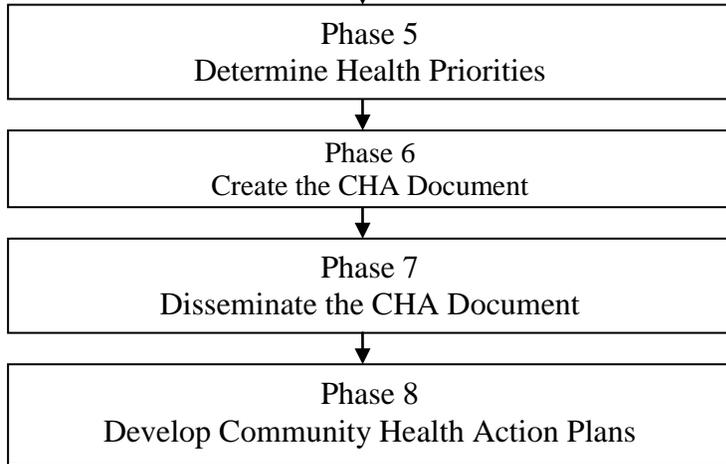
- Determine the county’s health status from primary and secondary data
- Look at trends over time
- Compare the county to other counties and the state
- List the most important strengths and problems

Tools:

- Putting it all together – Health statistics
- Putting it all together – Community perceptions

Appendix: (Appendix at www.publichealth.nc.gov/lhd/cha)

- Statistical Primers



Essential Services #1 Monitor health status to identify community health problems

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessment

Accreditation Activity 1.1.b	Reflect the demographic profile of the population
Accreditation Activity 1.1.c	Describe socioeconomic, educational & environmental factors that affect health
Accreditation Activity 1.1.d	Assembly/analyze secondary data to describe the community health status
Accreditation Activity 1.1.f	Compile/analyze trend data to describe changes in community health status and factors affecting health
Accreditation Activity 1.1.g	Use scientific methods for collecting and analyzing data
Accreditation Activity 1.1.h	Identify population groups at risk
Accreditation Activity 1.1.i	Identify existing and needed health resources
Accreditation Activity 1.1.j	Compare selected local data with data from other jurisdictions

Benchmark #11 LHD shall convene key constituents and community partners to identify, analyze and prioritize community health problems/issues.

Benchmark #19 LHD shall identify populations that are not receiving preventive services or are otherwise underserved with respect to health care.

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 4: Analyze and Interpret Primary and Secondary Data

This Phase provides guidance for: gaining a basic understanding of the demographics of the county, the health status, and the major health risks and problems in the county, developing an hypotheses to explain the health risks in the county, and gaining insight into how the health status and health risk findings support, contradict, and relate to county residents' perceptions.

Once the CHA Team has collected a large amount of information about the county, it is time to pull the information together into a cohesive story. Analyzing CHA data requires pulling out the key pieces of information, thinking critically about where that information came from, interpreting what that information means for the county's health status, and then weaving the essential facts together into a complete picture of the county's health. Data describing the health of the county can be useful for program planning and evaluation and for developing CHA and community action plans. All the numbers, survey results, small-group discussion transcripts, and files of county and state level health statistics must be analyzed before developing a report to the community or selecting issues for the community health action plans.

It is not necessary to report all of the data collected in the CHA document. Report key data that describes a current issue or issues in the county (e.g., an increase in the number of women who smoke while pregnant) as well as data that describes problems that an action plan might address. Data showing trends of improvement (e.g. since the last CHA) in the county are

also equally important to include in the report. Before developing the CHA document and selecting issues for the action plans, the data must be analyzed and interpreted carefully.

Prepare Survey Data

The first step in analyzing survey data is to “clean” the data. Data cleaning is the process of looking over the raw data to make sure there were no mistakes in data recording or entry. Check the range of the data to make sure that all responses make sense. For example, if the answer choices were “a, b, and c” and one person wrote “z” as the answer, check the hard copy survey to be sure the answer was entered correctly. Answers that do not make sense should be deleted and counted as missing data.

Review secondary data carefully as it may be several years old, incomplete, or based on small numbers (less than 20 people). Primary data also can be subject to problems based on how the data were collected, how truthfully people responded, and how willing people were to participate. Unintentional bias (the way the data were collected or subjects selected) may cloud the picture from what is really happening in the county. In addition, data from one portion of the county is sometimes incorrectly used to represent the entire county. Just because data highlights an issue or event, it doesn’t mean that this issue or event is more importance than another that lacks the supporting data. Evaluate the importance of an issue or event by asking how many people the issue or event affects, how severe its effects are on the county, and whether or not anything can be done to prevent or lessen its negative effects.

The next step in survey data analysis is to calculate descriptive statistics such as percents and averages. These statistics will give a summary of the answers for each question. The CHA Team may also want to do a more complicated analysis of the results broken into demographic groups to see if there are differences between responses in each group.

If the survey sample is not representative of the county’s population (ex: a convenience sample), weight the results using population calibration. Population calibration adjusts for important differences between the demographics of the sample and the demographics of the county. Some people may be over-represented in the survey results and others may be under-represented. For example, if the sample has a larger percent of individuals that are younger and have lower incomes than the county’s population, the answers to survey questions on access to healthcare will be different than if a representative sample of the county’s population was surveyed. After deciding which demographic characteristics are likely to be related to the results, break up the sample into demographic groups according to these characteristics. Next find out the makeup of the county according to these characteristics, based on reliable sources such as the US Census data. The weight for each demographic grouping (ex: group 1 is all adults age 18-24 with income <\$15,000) will be:

$$Weight_{group\ x} = \frac{y}{x} = \frac{(proportion\ of\ group\ x\ in\ county)}{(proportion\ of\ group\ x\ in\ sample)}$$

Calculate this weight for each relevant characteristic and use the weights to correct the results. For example, if the CHA Team wants to know how many people in the county are uninsured based on the survey, multiply the weight for each demographic group by the percent of people in that group who said they are uninsured, and then sum up all of the adjusted percents for all demographic groups.

$$Total\ percent\ of\ uninsured\ in\ county = \Sigma (Weight_{group\ x} * proportion\ uninsured_{group\ x})$$

Add weights to the data using EpiInfo or in a spreadsheet program such as Excel. Seek statistical advice if there are questions about how to do population calibration.

Explore What is Behind the Data

Quantitative data will not reveal everything. The number of reported incidents may be known but the number alone cannot give specific information such as:

- Why the incident happened
- If there has been a change over time
- If people are aware of or concerned about the change

Often the CHA Team needs to talk to county residents to find out the story behind the numbers. This is why it is important to combine the secondary, quantitative data with the primary, qualitative data. Data from several years may show that there has been a notable change over the period of time. Reasons for why the changes occurred need to be examined. Think about related interventions, diagnostic changes, migration of people, and social or economic trends.



- **Use caution if sample sizes are small because the information may be misleading.**
- **Data collected are only as accurate as the source of the data.** Sometimes there isn't any information on how or by whom the secondary data were collected.
- **Misinterpretation of data can lead to misunderstanding of the importance of some issues or events.**

The methods used to analyze the collected data can vary depending on the reasons for the assessment. In CHA, the focus is on analysis of data collected by a variety of methods to produce a CHA document and community health action plans. Community partners may also use these data to set priorities for their programs which may or may not be the same as the CHA priorities.

Analyze the results of each data collection method. Summarize the information learned from secondary and primary data using the *Putting It All Together Worksheets* in the Phase 4 Tools. Look for common threads between the two summaries and pay attention to any differences or emerging issues. All methods of gathering data probably will result in similar findings, pointing out important issues. For example, consider the following fictional scenario:

- Key informant interviews with *County X* community members and leaders indicate that their young people are dropping out of school and going to work in low-paying jobs in a plant in the county, with limited health insurance coverage.
- Secondary data from the State Center for Health Statistics indicate that *County X* has an unusually high public school dropout rate.
- Primary data from the Community Health Opinion Survey for *County X* showed that school dropout was a concern of 66 percent of those who completed the survey.
- Small-group discussions with *County X* community education leaders revealed that they think the dropout problem is worse than the statistics indicate.

With this confirmation of findings, the *County X* CHA Team may want to include a strategy to reduce the public school dropout rate in the community health action plan.

Sometimes data conflict with each other. This means that one method reveals one thing (e.g., secondary data statistics revealed heart disease is declining in the county) while another method

shows something different (e.g., health providers and citizens stated in interviews and surveys that more people have heart problems and they're concerned about it). It is important to reconcile these differences. When the cause for the discrepancy is unknown, find out what it is. It is risky to move forward on planning future action when there is conflicting information.

Trend Analysis

It is very important to describe any noticeable trends or changes in the data that have occurred over time. While this is a requirement for local health department accreditation, it is also important for planning health programs and services. Use caution when developing a trend analysis by comparing indicators in the current County Health Data Book to the same indicators from previous County Health Data Books. The current County Health Data Book tables use the projected United States 2000 population as the standard for age adjustment, in keeping with the national practice. However, the rates in these tables are **not** comparable to the rates in similar tables that were published in editions of the County Health Data Book before 2000, which used the age distribution of the 1970 United States population. A comparison *can be* done between tables that were adjusted to the 2000 United States population standard. See *Statistical Primers* in Appendix C and D for further discussion of this issue.

Compare findings in the new CHA data to data in the previous CHA and look for trends. Look at the same health indicators so that they are directly comparable to the new data. In addition, the CHA Team may want to gather historical and current local information to examine trends in local data. Be sure that the data being compared covers the same time period (e.g., annual data, three or five-year data) and uses the same source for population demographics. This is especially important if comparing data from a previous community health assessment since the SCHS has changed some of the reporting periods.



In rural counties, rates may seem to change dramatically year to year, based on just a few deaths or cases of illness. In these cases, it is better to calculate rates over a several-year period, and compare those to earlier several-year periods.

The time period chosen for comparison should be meaningful to the data being compared. For instance, the incidence of influenza varies throughout the year so it might be helpful to know the months when the most cases occur. Trends in heart disease death rates for the county, however, might not be revealed in less than a five-year period. Other interesting health trends might show up around the time of notable events that affected the county, such as a hurricane.

Develop trends for any data that measure a health outcome at several points in time. If rates are measured for each year, then examine the yearly trends. If rates are measured over a longer period of time, examine the trends for several time periods. For example, the County Health Data Book often gives county-level data for births as rates over a five-year period of time. To analyze the change in the county's birth rate in the past 10 years, compare the birth rate for the most current five-year period with the birth rate for the five-year period immediately prior to that one. If data are available, it is best to look at trends over 15 years for five-year rates to get a better idea of whether the trend shows an increase or decrease.

Don't forget to use local expertise in the areas being examined to validate impressions and interpretations of the data. County residents may have valuable information relevant to data interpretation—their impressions may be as valuable as those of prominent experts. Solicit their feedback when preparing a summary presentation of initial CHA findings. It is crucial to obtain a complete picture of the trend being examined.



- What health risks seem to be increasing or decreasing?
- What improvements seem to have occurred in the county?
- What are the changes from the last CHA or state of the county's health reports (SOTCH)? If the current survey contained any questions from previous surveys, small-group discussions, or key informant interviews, compare how responses may have changed over time.
- How does the county health data compare to the state and peer counties?

Develop Analysis Summary

A summary of the analysis results should be prepared as a written document and as a presentation to the community. Here are some ways to organize the presentation:

- Discuss most prevalent and serious diseases or problems and resources in the community as discovered in relevant secondary data.
- Discuss concerns of citizens from surveys or small group discussions and indicate whether the secondary data supports citizens' opinions on the greatest health problems for the county. Indicate where the data do not agree and why, if known.
- Discuss the informed beliefs and opinions of the CHA Team which were supported by data indicating the health problems of greatest concern to the county and resources needed to address these problems.
- Discuss emerging health issues such as new areas/diseases of focus, new risk factors, and improvements and setbacks since the last CHA.
- Summarize the results of each instrument used to collect data. (e.g., what the Community Health Survey and Health Resources Inventory revealed, what the secondary data indicate, what community members emphasized in the interviews, etc.) Include examples of where results from the various methods agreed and disagreed.

Since this information will be presented in various reports, present the results as clearly as possible. Many county residents are not familiar with statistics and health care jargon. Some counties make a short summary flier for the community in simple language highlighting only the priorities and save the bulk of the statistics for the full CHA report. The report or presentation should also be unbiased (except when it is made clear that the statements are opinions and not fact) and the language should be clear and non-judgmental.

County residents can benefit from learning what the assessment revealed. The residents who participated in the assessment process will value having their voices heard by health officials, and they and other county residents may be motivated to make a positive change in their county

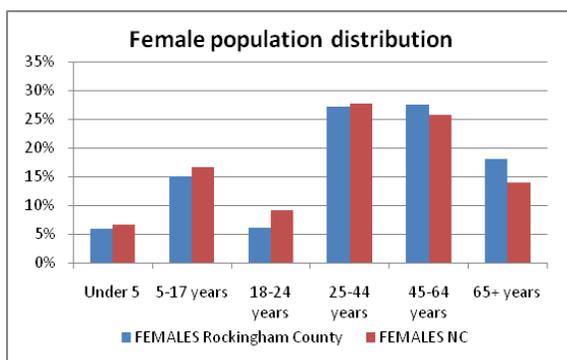
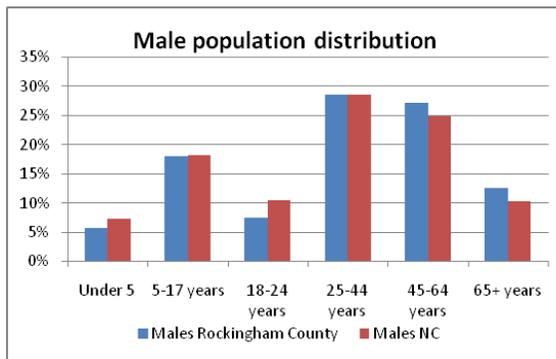


BEFORE CONTINUING THIS PHASE, IT IS IMPORTANT THAT THE CHA TEAM REVIEW AND UNDERSTAND THE STATISTICAL PRIMERS INCLUDED IN APPENDIX C AND D. THE TWO CONCEPTS DISCUSSED IN THESE PRIMERS—AGE ADJUSTMENT AND SMALL NUMBERS—ARE CRUCIAL FOR ACCURATE DATA INTERPRETATION.

Analyze Data

Population Demographics

The first step in understanding the health status in the county is to understand the demographics and socioeconomic factors which are powerful determinants of health. Compare the population percentages for selected age, race, and sex groups for the county and the state. Percentages show what proportion of people in the county belongs to each demographic group. In addition to percentages, the numbers are also important because they document the actual number of people potentially in need of certain health services. Consider drawing a population graph using a computer software program such as Excel to visualize population distributions.



This is an example of an Excel population graph for Rockingham County and the state of North Carolina. These graphs can be interpreted as follows:

a) Rockingham County's population has a higher proportion of people over 64 than the state as a whole, for both males and females.

b) Proportions of males and females in each age group are similar except for ages over 64 years. There are more females in the oldest age group than males.

c) Both the county and the state have the highest proportion of their populations in the "25-44 year-old" group and the lowest proportion of their populations in the "Under 5" group. Notice that these two age categories use different lengths of time. The age categories were chosen to represent stages of life that have different health needs and risk factors.

Some demographic questions to ask are:

-  Has there been an increase or decrease in overall population size?
- How has the population changed since the last CHA or SOTCH reports?
- What are the reasons/influences that caused the change?
- How does this influence health program planning?

Sub-population Data

Identify if there have been any recent increases in population sub-groups in the county that might need special services due to age, language, or cultural differences. Are there any sub-groups of people who might be susceptible to health problems because of their economic status, insurance coverage, disabilities, or job exposures?

The extreme ages (youngest and oldest) are at the highest risk for health problems and are economically less productive than working-age persons. Like the rest of North Carolina and the United States, the county's population may be aging. As such, it is important to examine age trends to prepare for the way these changes might affect health status of the county residents and the health care system.

Note the extent to which the county's population is made up of persons of minority races. Racial groups often differ by socioeconomic factors that can impact health status (e.g., income and education), but race in and of itself has little direct bearing on health outcomes except for a few diseases (e.g., sickle cell anemia).

Interpreting Health Data by Race

Race in and of itself does not cause poor health status. There is little understanding of the association between race and health problems, but factors such as socioeconomic status, stress, and racism may be among the underlying causes of the lower health status of minorities when compared to whites. However, these factors are seldom quantified or recorded, while data on race are easier to find. Thus, race often serves as a surrogate measure for a variety of other related factors.

Because race is a surrogate measure for a variety of other related factors, minorities as a group are compared to whites on a variety of health measures throughout the CHA process. For many health indicators, African-American and other minorities have a greater burden of preventable illnesses and deaths than whites. This, of course, may not be true on the individual level. The advantages of showing the data by race are obvious for targeting resources and interventions toward populations most in need.

The SCHS normally publishes data by race for only two groups: white and minority. The SCHS recognizes the various population groups in North Carolina and the need for more details on race but a number of factors have hampered efforts to obtain accurate minority populations data. Some of these factors are:

- Many people want more details on other racial groups, such as American Indians and Asians. However, there are relatively few people in these groups in North Carolina. This means that there are relatively few births, deaths, and other health events for these groups. Rates with small numerators often are statistically unreliable, particularly at the county level.
- Appropriate denominators to produce rates for small racial groups are not available on a yearly basis. The United State Census, which collects detailed racial population data, is conducted only every 10 years.
- The North Carolina Office of State Planning produces annual population estimates but these are only for "white" and "other."
- The SCHS does capture more racial detail on its health records and can produce counts of events for smaller racial groups, but it is often not feasible to produce statistically reliable rates and percentages.

Hispanic/Latino is an ethnic group, rather than a racial group. Hispanics may be counted in both white and minority populations. There are significant challenges for collecting accurate data for Hispanics and official statistics are likely to be underreported. However, it is important to recognize that, according to census data, the Hispanic communities in North Carolina are

growing steadily. In 2000, the census data showed approximately 379,000 Hispanics in the state (4.7% of the population). By 2006, the number of Hispanics in the state grew to a projected 597,000 (6.7 % of the population). For 2006-2008, the number of Hispanics in the state was estimated at around 636,786 (7% of the population) (*American Community Survey, US Census*)

Miller, et al. (1989) makes the case for careful interpretation of data on race and other proxies for socioeconomic status in their book *Monitoring Children's Health: Key Indicators*. Following is a quotation from this discussion:

“In the United States, scant data are available on socioeconomic levels, but vital statistics are full of information on race, age, and marital status. We tend to report data that are available and to interpret them by relying on known associations. Unless great care is exercised, discriminatory stereotypes can be perpetuated. Dysfunctional families occur among all races and all socioeconomic levels. If we had readily accessible measures of family dysfunction, we would understand better the dynamics of such outcomes as child abuse, teenage pregnancy, low birth weight, and high infant mortality. Lacking that information, we risk burdening minorities, teenagers, and unmarried mothers with stereotypes that they do not deserve.”



- Has any sub-population group changed far more than others?
- What are the changes in sub-population groups from the last CHA or SOTCH reports?
- What are the reasons/influences that caused the change(s)?
- How do these changes affect the usage of the local public health department, hospital(s) or other agencies and organizations?
- How is the county's population different from the state in regards to sub-populations?

For more information on minority health, see the SCHS publication “Racial and Ethnic Health Disparities in North Carolina,” at www.schs.state.nc.us/SCHS/ under “Publications.” For more research on how race, socioeconomic status, and stress impact health, see:

- ✓ California Newsreel (2008). Unnatural Causes.
- ✓ Marmot, MG (2004). The Status Syndrome.
- ✓ Mustillo S, Krieger N, Gunderson EP, Sidney S, McCreath H, Kiefe CI. (2004). Self-reported experiences of racial discrimination and black-white differences in preterm and low-birthweight deliveries: The CARDIA Study. American Journal Public Health, 94, 2125-2131.
- ✓ Cohen S, Tyrrell DAJ, & Smith AP. (1991). Psychological stress and susceptibility to the common cold. New England Journal of Medicine, 325, 606-612.

Socioeconomic Factors

Examine the socioeconomic measures for the county using data collected in Phase 3. Economic factors are powerful determinants of health since many diseases and risk factors are adversely affected by poverty. These data provide information about the level of poverty in the county, who is most affected, and what services may be needed. One way to estimate the number of impoverished residents in the county is to look at the number of recipients of Temporary Assistance for Needy Families (TANF)/Work First and Food and Nutrition Services (FNS) (www.dhhs.state.nc.us/dss). Recipients of these social services are frequently in need of services provided by local public health departments and other agencies.

The per capita income for a typical rural county might be at least \$2,000 less than the state as a whole. This difference is large, but not unusual. Rural counties with lower average incomes may have more poverty-related illnesses compounded by challenges in accessing health care.



- How many families are recipients of TANF or FNS?
- Are there geographical areas of the county where more residents are recipients of TANF or FNS than other areas?
- How does this influence health program planning?
- What are the programs/sources for assistance for these recipients?
- How have the data changed from the last CHA or SOTCH reports?
- What are the reasons/influences that caused the change?
- How does the county data compare to the state?

Education

Education influences a person’s health throughout his or her lifetime. Data from the NC Department of Public Instruction’s website (www.ncpublicschools.org) and other sites listed in the *Resource Guide* in Appendix H are useful for understanding the status of public education in the county. The US Census collects information on the educational attainment level and enrolment status of the residents in a county.

In addition to being one measure of socioeconomic status which affects health, education is closely related to health literacy. If people in the county have a low average level of education, this changes the way agencies and organizations need to deliver health messages, provide health care, and conduct health surveys.

- **Graduation Rates.** The four-year graduation rate may be an indicator of educational status and the need for additional health services geared towards the teenage population. If the county has a low four-year graduation rate compared to the state or peer counties, explore programs to improve retention. High dropout rates affect the employment potential of county residents which has implications for location of large employers and healthcare coverage of residents. Data on graduation rates is listed on the NC Department of Public Instruction’s website (www.ncpublicschools.org) under “Data & Statistics.”
- **SAT Scores.** The average SAT score of North Carolina students has been generally improving over the past three decades. Data on SAT scores is listed on the NC Department of Public Instruction’s website. Compare the county’s average SAT score to the state as a whole.

The most significant factor in interpreting SAT scores is the percent of students who take the exam. In general, the average scores are lower if more students take the exam. For example, in a county where a very small percentage of students—only those who are college-bound seniors with very strong academic backgrounds--take the SAT, the SAT averages reported for that county would be higher than the state average. If a greater proportion of students with a wider range of academic backgrounds take the SAT, the scores would expect to be closer to the state average.



- What are the trends in graduation rates for the school district(s)?
- Do the graduation rates vary by schools or school district(s)?
- How does the educational level in the county compare to the state?
- What are the changes in dropout rates and SAT scores from the last CHA or SOTCH reports?
- What are the reasons/influences that caused the change?
- Does there appear to be a relationship between the graduation rate and teen pregnancy, unemployment, and crime in certain areas of the county?
- What are the other sources for learning employment and life skills in the county?
- How does the educational level of the county's population affect the usage of the local public health department, hospital(s) or other agencies and organizations?

Environmental Factors

Review data on potential environmental contaminants such as lead, tobacco smoke, and other sources of air and water pollution. Explore what can be done to remove these contaminants or lessen their impact on health in the county. If the county has high levels of air pollution and often has high ozone days, consider how those affect the ability of citizens to safely work and play or exercise outside. Consider other factors which make a county a place where people want to live and visit (e.g., good quality restaurants, hotels, daycares, pools, parks, and walking trails).



- Is the environment in the county conducive to a healthy lifestyle?
- What are the changes in the environment from the last CHA or SOTCH reports?
- Why have those changes occurred and how do they affect health?
- How does the county data compare to the state?
- What can be done to make the county a healthier place to live?

Pregnancies and Births

Examine the county's data related to live births and pregnancy and compare that data to the state's data. In addition to the number of births, look for data on indicators of healthy pregnancy such as early prenatal care. Note risk factors for poor birth outcomes such as low birth weight, mothers who smoke, and inadequate child spacing. If the county has a lot of high-risk pregnancies, consider how the local public health department and other agencies can work to improve birth outcomes. The *Basic Automated Birth Yearbook (BABY Book)* on the SCHS web site contains information on prenatal care, birth order, birth weight, condition of newborns, and other important indicators.

Unplanned and Teen Pregnancies

Unplanned pregnancy is a major problem in North Carolina. Indicators are large numbers of abortions, out-of-wedlock births, inadequate child spacing, and teenage pregnancies. It is useful to look at the number of occurrences of these indicators in the county compared to the state, because, while not all of these pregnancies are unwanted, many are unplanned. If the number of unplanned pregnancies appears to be high in the county, this may indicate a need to improve or expand family planning services. If county residents perceive teen pregnancy as a great concern,

look at data on the number of births to mothers less than 18 years old. Such information may be helpful in developing an action plan. Keep in mind that not all cultural groups view teen pregnancy as a problem. Different groups may also place different values on marriage.



- What percent of teen mothers are very young (10–14 years of age)?
- What percent of teen births are to unmarried mothers?
- What percent of teen mothers have not finished high school?
- What percent of births to teen mothers are second or higher order births?
- What are the changes in live births and pregnancy data from the last CHA or SOTCH reports?
- What are the reasons/influences that caused these changes if there are changes?
- How does the county data compare to the state?

Mortality

Fetal, Neonatal, Post-natal, and Infant Deaths

Because there are a small number of perinatal deaths that occur each year, perinatal death data has been aggregated to five-year rates. Perinatal (fetal, neonatal, post-natal, and infant) death rates represent deaths that occurred during a five-year period (e.g., 2004-2008). In counties with very small populations, the number of events that occurred over five years may still be too small to interpret. The county should have at least 20 or more events for any health indicator before its rate can be compared to the state rate.

Guide to Perinatal Health Indicators

Early prenatal care - first prenatal checkup is during the first trimester of pregnancy

Low birth weight - weight that is less than 2500g (5.5 pounds) at birth

Very low birth weight - weight that is less than 1500g (3.3 pounds) at birth

Inadequate child spacing - less than six months between the date of delivery and next conception.

Definitions taken from the State Center for Health Statistics and WHO guidelines

Infant mortality is an index used internationally to measure the overall health of a population. Although the United States has some of the most advanced health care technology in the world, as made less progress than many other counties in reducing infant mortality. Look at how the county's infant mortality rate compares to the Healthy NC 2020 Objectives. If the infant mortality rate is based on small numbers, see Appendix C before interpreting the data. If the infant mortality rate is a lot higher than the state's, explore the reasons why. Look at past statistics for the answers to these questions:



- Is the infant mortality rate higher now than five years ago?
- Has the infant mortality rate increased or decreased over the past 15 years?
- What are the changes in data from the last CHA or SOTCH reports?
- What are the reasons/influences that caused the change if there is a change?
- How does the county data compare to the state?
- Are there programs that the local public health department and other agencies can add or improve upon to lower the infant mortality rate?

Neonatal mortality (death within 28 days of life) accounts for approximately 70 percent of the infant mortality rate in North Carolina. Two factors are largely responsible for neonatal mortality. The first is serious birth defects and the second is low birth weight. Black infants are nearly four times as likely to die from prematurity and low birth weight as are white infants.

Fetal death rate (loss after 20 weeks of gestation and before birth) is another important measure of perinatal health. If the county has a high fetal death rate compared to the state and surrounding counties, consider the causes for this higher rate.

General Mortality

Note that some of the mortality indicators represent unadjusted (or “crude”) rates, whereas others have been age-adjusted. Age-adjusted death rates are the most appropriate comparison measure because age differences in the population distributions have been controlled. All other factors being equal, age-adjusted death rates tell how many deaths would have occurred in a population of 100,000 persons in each of two locations if they had exactly the same age distribution. An adjusted rate is a hypothetical rate and is valuable for comparison only. Unadjusted rates are a better measure of the overall level of death from one particular disease versus another in the same county. When comparing deaths in the same county for the same time period, age adjustment is not necessary because the population will be the same. For more discussion on age adjusted rates, see Appendix D.

If only crude death rates are available, be sure to compare the age distribution of the county with the comparison group. For example, a small county with a large university will have a higher proportion of young people than counties with large retirement communities. As such, unadjusted death rates may vary considerably between these two counties simply because of the age differences.



- What are the leading causes of death in the county?
- What are the leading causes of death by age/race/sex?
- Are there large variations in the age-adjusted rates in specific sub-population groups?
- What sub-population groups are impacted most by unintentional and violent causes of death (e.g., homicide and suicide)?
- What are the changes in data from the last CHA or SOTCH reports?
- What trends can be identified in the mortality data?
- How does the county data compare to the state?

Morbidity

Regarding morbidity (disease rates), remember that the cases noted in the County Health Data Book are only the ones that have been reported so use caution in drawing conclusions from this information. Rates in a county could be low because physicians do not report all of them, the health care community is not frequently diagnosing this disease, or the patients have not seen a health care professional for their illnesses. For example, the Centers for Communicable Diseases estimates that around 25 percent of those who are infected with HIV do not know that they carry the virus. Some factors that may cause disease rates to seem to artificially rise are improvements in diagnostic techniques (i.e. prostate cancer screening), people with the disease moving to the area because of a new specialty clinic, improvements in training of local health

professionals, or increased access to care and screening for county residents. Rare disease rates are usually susceptible to random fluctuations because they are typically based on small numbers. Consult SCHS staff for help with interpretation of trends in a rare disease. If the changes in disease rates cannot be readily explained and if the rate is consistently higher than expected, then it may be an important change.



- Are communicable disease case reports submitted to the local public health department from all appropriate health care providers?
- Which communicable/chronic diseases are highly prevalent in the county?
- Which diseases have incidence rates that appear to be substantially higher ($\geq 15\%$ difference) than that of the state?
- What are the reasons why they are higher? (ex: People not getting immunized, poor sanitation)
- What are the changes in data from the last CHA or SOTCH reports?
- How does the county's data compare to peer counties?
- What strategies are these peer counties using for disease control and prevention?
- What health care resources currently exist in the county for addressing these diseases?

Behavioral Risk Factor Surveillance System (BRFSS) Data on several health behaviors including diet, exercise, tobacco use, and screenings for breast cancer (mammograms), cervical cancer (pap tests), colorectal cancer (colonoscopies), and prostate cancer (prostate exams) are available for most years for each region of North Carolina and some counties.



- Is BRFSS data available for the county or just for the region?
- What behavioral risk factors have a high prevalence in the county?
- What are the changes in data from the last CHA or SOTCH reports?
- What are the reasons/influences that caused the changes?
- How does the county or regional data compare with state and peer county data?
- What programs can be put into place to address these risk factors?

Peer Counties

Compare the county's data to a neighboring county and to the peer counties by developing a spreadsheet. A "peer" county is another county similar in terms of population range, age, race, and poverty of residents. Contact the SCHS for more information on peer counties. If a peer or neighboring county is seeing more positive trends in a particular health data (e.g., cancer or stroke mortality rates), the CHA Team may want to investigate how the local data compares to state or national data over the same time period. The following example explains how to calculate the percent change for county rates and what percent difference there is between a county and another county or the state. These calculations are useful for examining local trends and comparing a county to other geographic areas. The SCHS recommends using the guideline of a 15 percent or greater difference in rates as an important difference when comparing one county to another county, a county to the state, or when examining local trends over time. Less than a 15 percent difference in rates could easily be caused by chance fluctuations in the rates. Before calculating the percent change, make sure that the rates are based on the same population unit (ex: both are in the format: number of cases per 100,000 people or per 1,000 people) and

that they come from the same period of time. If not, convert them to the same population unit or find rates from the same time period.

Computing Percent Change or Percent Difference

To calculate both percent change and percent difference, use the following basic steps.

1. Determine what the base is. (Hint: The base is the year or population group to which you want to compare your statistic.)
2. Subtract the base from the comparison value (your statistic).
3. Divide by the base value.
4. Multiply by 100.

So, your calculation should look something like this:

$$\frac{(\text{Comparison value} - \text{Base value})}{\text{Base value}} \times 100\% = \text{Percent change or Percent difference}$$

Don't worry. It's easier than it sounds! Here are some examples:

Percent Change - Example 1: County residents are concerned about the number of deaths from heart disease in your county. The County Data Book says that the county's death rate from heart disease was 45.0 deaths (per 100,000 population) in 2010 and 41.0 deaths (per 100,000 population) in 2008.

What is the percent change in the heart disease death rate for the county in 2010 compared to 2008?

The base year is 2008. So calculate the percent change this way:

$$\frac{(45.0 - 41.0)}{41.0} = 0.098 \times 100\% = \mathbf{9.8\%}$$

Interpret: The death rate for heart disease in the county increased by 9.8% between 2008 and 2010. This is not considered a drastic change since 9.8% is less than the SCHS guideline of 15% variance in rates.

Percent Difference - Example 2: A committee is to decide whether the new regional birthing center should be in your county, Mountain County, or the neighboring county, Cliffhanger County. The County Data Book says that between 2004–2009 the Mountain County's birth rate was 15.0 births (per 1,000 population) and Cliffhanger County's birth rate was 12.0 births (per 1,000 population).



- What are the changes in data from the last CHA or SOTCH reports?
- How does the county's health data compare with the state and peer counties?
- Are there peer counties that appear to have better trends for certain health indicators?
- What are the causes for these better trends?
- Would the programs/interventions from the peer counties be useful in this county?
- Does this county have the resources to implement these programs/interventions?

Health Resources

For county specific information, review data on health resources collected in Phases 2 and 3 which includes information on: (1) current agencies and organizations that have some effect on health, (2) needed resources that are currently lacking and (3) narrative explaining how current and needed resources influence the county residents' health.

Health Care Facilities and Providers

For potential health care utilization and program information not included in the county health resource inventory, refer to the *Resource Guide* in Appendix H, SCHS website. A shortage of providers does not necessarily indicate that county residents are not receiving adequate care, but rather may suggest that a number of residents leave the county for care or that the particular type of specialist is not available or in high demand in the county. For persons living near the county line, it may be more convenient to leave the county than seek care in their own county. However, in some areas of the state, many neighboring counties share a shortage of health care providers, so receiving care is difficult. Looking at the statistics and listings of health care providers in the area to determine the barriers that hinder county residents from receiving the health care they need. Identify health care gaps in the county. Look at county services to determine if they are failing to reach those who need them the most.



- What are the health care gaps in the county?
- Are the existing programs and services failing to reach those who need them the most?
- How does this data compare with the data in the last CHA or SOTCH reports?
- Does the county have enough counseling and rehabilitation services?
- Do people know where to get counseling and rehabilitation help when they need it?
- How does the county's health data compare to the state and peer counties?

Parks and Recreational Facilities

Another important issue related to community health is the availability and safety of neighborhood parks and sidewalks and existence of community recreational centers. Changing the way communities are can develop and increase physical activity and healthy eating opportunities. Many people express a desire to walk more and be more physically active, but find themselves hindered to a great extent by the design of their communities that are designed for automobiles rather than pedestrians. Stores, restaurants, and schools are often too far away from residential neighborhoods to be easily reached by foot.



- Does the built environment in the county encourage people to exercise, walk, and bike to places or to stay inside and drive?
- What resources are lacking in the county?
- Are there other facilities that could be utilized to replace missing facilities? (e.g., school or church gymnasiums for after school or night basketball leagues)
- How does this compare with the data in the last CHA or SOTCH reports?
- How does the county's health data compare to the state and peer counties?

Smoke-free Facilities

Information on smoke-free facilities may not have been included in the data collected earlier. Since smoking and second-hand smoke contribute to many health problems, it is critical for the CHA Team to look at the county and ask the following questions.



- What facilities are smoke free in the county? (e.g., recreational facilities, worksites)
- Do county residents support smoke-free public facilities?
- Do county policies reflect those beliefs?
- How has smoke free policies changed from the last CHA or SOTCH reports?
- How does the county data compare to the state and peer counties?
- What can be done to change the smoking environment and policy decisions in the county?
- How does a lack of smoke-free facilities limit the lifestyles of those with asthma and other chronic respiratory illnesses in the county?

Other Resources

Data collected earlier provided information on a number of other resources in the county that effect the physical, mental, and social well-being of county residents. One starting point in analyzing this data is to look at the crime and substance abuse rates as well as domestic violence and child abuse rates. A high crime rate and widespread spousal and child abuse can signify a need for more social services that support county residents during hard and stressful times. Also, if the county has a young population, pay extra attention to data surrounding childcare and developmental services for early childhood. If the county has a large elderly population, look at data on the number and quality of retirement homes and assisted living facilities. In other words, tailor the information to describe the county and the needs of the residents.



- Are violent or property crimes a problem in the county?
- Are the crime rates dropping at a rate similar to that of the state or peer counties?
- How does the current crime rate compare with data from the last CHA or SOTCH Reports?
- Are child care needs met in the county?
- How does the county compare to the state in terms of the proportion of preschool-aged children in child care?
- How serious is domestic abuse and child abuse in the county?
- Are people able to access the basic necessities for good health and quality of life such as grocery stores and markets with healthy food choices?

- Are nutritious food choices disproportionately available in different neighborhoods?
- How can zoning policies be changed to ensure that every neighborhood has access to good food?
- Is there bus, taxi or other transportation services?
- Do bus routes serve areas with the most need for transportation?
- How is transportation routed in the county?
- Do routes connect people to job opportunities, health care, aid organizations, and other community resources?
- What educational and service learning opportunities are offered in the county?
- What job skill training is offered to support local industries?
- How can people enrich their lives after graduation from high school?

Community Health Opinion Survey

Report methods used for primary data collection in detail (about one paragraph) including a description of the target population, how participants were selected and recruited, and how the survey or small group discussions were administered.

Data from the Community Health Opinion Survey collected in Phase 2 can be entered into a program such as Excel or Epi-Info to organize and calculate statistics from the survey data. Enter participant’s survey responses directly into a survey template which is set up in an Epi-Info format file. If any survey questions were added or deleted, be sure to modify the survey file in Epi-Info BEFORE entering any data.

When analyzing data from the survey, consider the makeup of the surveyed population and who it represents. Analyze this population to see if it is representative of the county’s population. See *Comparing the Sample Population to the County’s Population Worksheet* in Phase 2 Tools. If the sample population is not representative of the county’s population, the data may need to be adjusted to account for the differences in the sample population. (See Phase 2 for a discussion on how to analyze survey data.)

Report the answers to all survey questions using percents and counts in an easy-to-read format using tables, graphs, and charts. Be sure to include interpretation of the answers and what they say about the perceived health of the county. Look at the survey information to see what the data says about quality of life, major health issues, and health resources in the county.

REMEMBER: MISLEADING DATA IS WORSE THAN NO DATA!

Results from convenience samples must be interpreted with caution. It is important to describe the people that the data represent because generalizations can be made only to persons who are similar to the convenience sample. For example, if people were sampled in the parking lot of a superstore on Tuesday morning during a certain time period, the results apply to those who would shop at that store on a weekday morning or more accurately, on Tuesday morning during that time period. Sampling procedure must be reported along with the results showing the demographics of the sample compared with the demographics of the county.



- Is the sample population representative of the county’s population?
- How is it different?
- How will this difference influence the results of the survey?

- What is the general opinion of the quality of life in the county?
- What seem to be the county’s biggest assets?
- What are the biggest health problems according to the community members surveyed?

Small-group Discussions

Using the information collected in small-group discussions, sort the information according to the key topics or areas of concern, such as schools, services for the elderly, child care, job opportunities, etc. Identify these topics and areas of concern from the various topics discussed during the discussions. When reporting the results from these discussions, do not interpret the data by a head count. For example, do not report that “85 percent of the respondents said ---.” These statements are inaccurate due to sampling bias and group dynamics.

When preparing a report on the results of small-group discussions, think about the CHA purpose and objectives, and the key decisions and steps that may be taken. Based on the discussions, address each key objective with recommendations and insights from the group. Look for places in the report to use phrases from the notes, quotes, or transcriptions.

There are several suggested components for the small-group discussion report:

- Summary
- Introduction and background including purpose and objectives
- Description of the research design chosen
- Results of the discussions
- Conclusions/recommendations
- Appendices (questionnaires, interview guides, or other materials used during the discussions)

Putting It All Together

Use the *Putting It All Together Sample Worksheets* in Phase 4 Tools to document the county’s most pressing problems and most crucial strengths, as revealed by the analysis. In order to get a complete picture of the county, the CHA Team will need to use the County Health Data Book, the Community Health Opinion Survey, and data from other sources to look at current statistics and changing trends over time. Use the worksheets to report to the community and to prioritize the county’s health problems.

TIP: The decisions of the community are paramount. County residents need to decide on their own priorities based on their particular needs

CHECKPOINT

Before leaving Phase 4, check to see if the following tasks are completed:

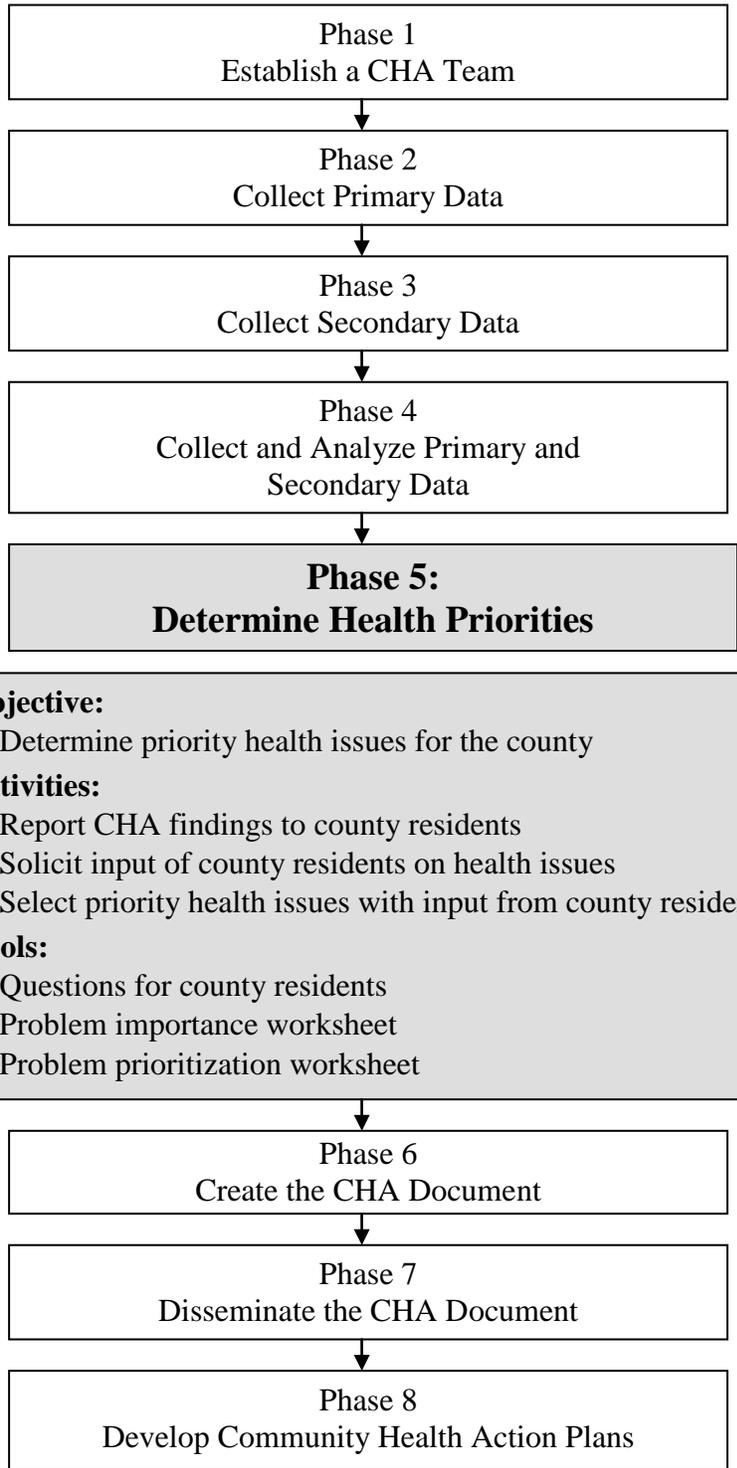
- ✓ Analyzed statistics from the County Health Data Book, and other data sources.
- ✓ Analyzed data from small-group discussions and/or the Community Health Opinion Survey.
- ✓ Involved the entire CHA Team in discussing implications and interpretations of the survey data combined with the secondary data analysis.
- ✓ Identified the county's most important strengths and problems on the *Putting It All Together Worksheets*.

PHASE 4 SAMPLE PUTTING IT ALL TOGETHER WORKSHEET

(Set up table for each worksheet with 10 rows for information. Include directions)

Putting It All Together Sample Worksheet – County Strengths	
Identify five to 10 of the community's most important strengths as indicated by the data in the <u>County Health Data Book</u> .	
Strength	Comments
Putting It All Together Worksheet – County Problems	
Identify five to 10 of the county's most critical problems as indicated by the data in the <u>County Health Data Book</u> .	
Problem	Comments
Putting It All Together - Community Perceptions of Strength	
Identify five to 10 of the community's most important strengths as indicated by the data gathered in the <u>community</u> (via local data, interviews, small-group discussions, surveys, and/or asset mapping).	
Strength	Comments
Putting It All Together - Community Perceptions of Problems	
Identify five to 10 of the community's most important problems as indicated by the data gathered in the <u>community</u> (via local data, interviews, small-group discussions, surveys, and/or asset mapping).	
Problem	Comments

NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Essential Services #1 Monitor health status to identify community health problems

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessment

Accreditation Activity 1.1.k Identify leading community health problems

Benchmark #11 LHD shall convene key constituents and community partners to identify, analyze and prioritize community health problems/issues

Consolidated Agreement List of community health priorities based on CHA findings

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 5: Determine Health Priorities

Once the CHA Team has gathered and analyzed primary and secondary data from a variety of sources, it is time for the Team to report these findings to county residents and determine the priority health issues to be addressed in the community health action plans (Phase 8). As a starting point, use the list of health strengths and problems developed in the *Putting It All Together Sample Worksheets* from Phase 4.

Share the CHA

Broad community involvement is important since many county residents may not have been contacted for their opinions and/or may not have heard about the CHA process. This broad involvement is important when choosing health priorities, developing community health action plans, and garnering community support for later decisions and actions.

Sharing the CHA information with county residents and gathering their feedback is a big job. It is a good idea to have a separate committee be responsible for publicity and community outreach. To be successful, this committee should include leadership from local stakeholder groups (hospitals, public health departments, recreation departments, human service organizations, colleges or universities, local industries, and elected offices). These people can get information and publicity materials out into their constituencies easily. The committee should also include people who represent diverse community groups, and who are skilled at different aspects of community outreach and publicity.

Use a variety of methods to report assessment findings to the community. Presentations, written reports, and public meetings are opportunities to meet with county residents to engage them in the CHA process, to report CHA findings, and to hear their opinions about health priorities.

Each member of the CHA Team and others who were involved in gathering information and opinions from the community should receive a data report. This helps county residents understand and become more engaged in the complete assessment process. Hopefully, it will encourage them to participate in collecting community data again.

TIP: The average citizen may not be familiar with statistical or technical terms. Educate community members before presenting them with health statistics or asking them to interpret assessment findings.

Present the Data

Whatever method is used to report assessment findings to the community, the information needs to be adapted to the audience. Develop a basic set of information that includes the purpose of the assessment, a list of those involved, and a summary and analysis of the findings that can be modified depend on the method used and the audience. Decide if the purpose of the information is give the audience CHA information only or is the information part of a discussion on setting health priorities.

Written reports: The contents of a written report can vary depending on the audience. At a minimum it should contain the purpose of the assessment, a list of those involved, and a summary and an analysis of the findings. This information needs to be presented in words that the average county resident can understand. When developing a written report for the general community, present the information with a sixth to eighth grade reading level and use simple charts and graphs. Scientific words and complex graphs should be saved for an audience who are used to reading this type of information. Include a questionnaire about health priorities with these reports to get feedback from a wide variety of residents. Ask the readers to vote on the top five issues they think are priorities. This information can be the basis for the community assessment document discussed in Phase 6. Written reports can be distributed at locations across the county where it isn't practical to have meetings.

Oral Presentations: The CHA Team or someone else who is well known in the community should present the report in public meetings, especially to the segment of the community they represent. These meetings can consist of time on a civic club or community group agenda, an event organized for this purpose, or other venues. Presentations must be adapted to the audience and the length of time available and it is important to allow time for discussion and questions.

- Civic or Community Groups - Generally presentations to civic or community groups are part of an established agenda and the program time is limited to 20 to 30 minutes. Plan the presentation for 15 minutes to allow for discussion time. If reporting to a group or club that has a regular meeting, go to them. They will have completed all of the arrangements for the meeting. Be sure to check out the facilities if using a PowerPoint or slide presentation to be sure that the necessary equipment is available, that the room can be darkened, and that there are appropriate electrical outlets.
- CHA Public Meetings - Every citizen can benefit from knowing the CHA findings and every citizen counts when improving the health of county residents. Invite people from all parts of the county and people of all ages, races, cultures, classes, job classifications, etc. The presence of respected community leaders, businesspersons, faith leaders, or health providers is a plus, especially if their constituents are present. Since the presentation was planned specifically to present CHA findings, it can be longer and presented in more detail. Generally these meetings are one and a half to two hours long. The presentation should be no longer than an hour to allow time for sign in (if attendance information is important), welcome, introductions, and discussion time. Participants are always happy to get out early if discussion is finished before the published time.

PowerPoint is an effective way to present assessment finding. Create a short written summary of the data as a handout. Whenever possible, make the presentation interactive. Opportunities for interaction will keep people engaged in the event and start them thinking about

the information. Questions can be distributed on paper at the beginning of the meeting or presented as part of the presentation. Use questions such as,



- What do you think are the main causes of ... [mortality, for example] in our county?
- Do you find [this statistic] surprising, or is it what you expected?
- What do you think [this figure] means?
- How have you seen examples of ... [this problem or asset] in your community?

For additional suggestions, see *Question for Community Members* in Phase 5 Tools.

Organize Public Meetings

Meeting Site - Small groups can meet in someone's home. If planning an event for the community at-large, find a location which is large enough and convenient so the audience will be comfortable. Depending on the size of the county, several such events may be needed to make them more convenient for county residents. Suggestions of places to meet include schools, community centers, senior centers, churches, and businesses or government conference rooms.

The meeting site needs to be handicapped-accessible and have adequate, well-lighted parking if the meeting is scheduled after dark. The room needs comfortable seating and temperature with adequate lighting and restrooms nearby. Placing the chairs in a U shape so everyone can see each other works well for small meetings. Providing transportation and babysitting may improve attendance. Refreshments are always a good idea if they fit the budget; if not, at least provide drinking water. Remember to model healthy eating by selecting healthy refreshments. (See the Healthy Meeting Guide under Program and Tools at <http://www.eatsmartmovemorenc.com>)

Meeting Publicity - The publicity committee can use a variety of venues to let the people know about the public meetings. Always include information on the date, beginning and ending time, and place of the meeting including room location and parking, if appropriate. Let people know the CHA findings will be reported and that there will be time for discussion so that the CHA Team can hear their concerns and opinions. If transportation or babysitting is available, mention it in the publicity. Ideas for publicity include:

- Announcements on radio and TV stations including the local government channels
- Flyers in local supermarkets, health providers' offices, Laundromats, coffee shops, health department, county office buildings, and public libraries
- Notices for church bulletins and local newspaper
- Newspaper ad space or stories about the meetings
- Announcements for partners to use to inform their membership
- Invitations to local colleges and universities– faculty, staff, *and* students.
- Radio, newspaper, and TV including local government media coverage of the meetings

Word of mouth may be the most effective publicity – encourage CHA Team members to discuss the meetings among as many people as possible and issue personal invitations. TALK IT UP!

Meeting Protocol - Designate a person to greet people when they arrive to let them know the CHA Team is glad they came and give them a copy of the agenda and handout, if appropriate. Designate a moderator to run the meeting in addition to the speaker and start and end on time. The moderator should be experienced in handling open discussions so community members can share their thoughts and feelings. Report the information and analysis of the CHA findings

factually then have a discussion period to hear opinions from the audience. Ground rules for the discussion period should be reviewed before opening the floor to comments. These include asking participants to agree to listen to each speaker, to be respectful and not interrupt; to disagree with an idea, not an individual; and to allow everyone to participate. If people are reluctant to speak up, the moderator should encourage them. There may be particular topics that cause more dialogue than others. Be prepared for some topics to be controversial. *Question for Community Members* in Phase 5 Tools can be used to facilitate discussion.

Select Health Priorities

The CHA Team should discuss and agree on the method to be used to make these decisions. The best way to determine priorities is one that involves as many CHA Team and community members as possible. People need a chance to deliberate, consider many factors, contribute thoughts and opinions, and have a say in the final decision. There are several different ways to rank or prioritize health issues. The ranking can be based on:

- Magnitude of the problem
- Seriousness of the problem
- Feasibility of a successful intervention

During the CHA process, communities frequently uncover a range of health problems that call for intervention. However, resources may not be available to address all of these problems. Communities must make choices about what to work on first and how to best use their resources. The first step is to check to see if another agency/organization is addressing the problem. It might be possible to join forces with them to address the problem and thus maximize resources.

There are many ways to set priorities—majority vote, consensus, rank or rating, or nominal group theory. Pick a fair, reasonable, and simple method that takes into account the information gathered and the realities of the county. Whatever method of priority setting is used, all priorities should be selected in the same manner and involve as many community members as possible.

Some methods of choosing health priorities call for the CHA Team and other interested people to come together and discuss the choices and resources. Local public health departments and community partnerships are encouraged to include county residents in establishing priorities, often as part of a public meeting. Other methods can be completed via the mail or e-mail. Some teams work together until they can arrive at a consensus where everyone agrees on the choices. Other teams choose by allowing the majority to rule. Choices may be influenced by what funds are available to address the problem or concern.

Priority Setting Methods

Described below are two examples of a priority setting methodology. Both of these methods can be use at the conclusion of meetings designed to choose health priorities or at other appropriate meetings of county residents.

Hanlon Method - This is a modified version of a method developed by Hanlon and his colleagues (Hanlon & Pickett, 1990). While this method has several steps, it is a good method to use for setting priorities.

☞ Step 1: Rate Health Problems

The first step is to rate all of the selected health problems. Using the *Problem Importance Sample Worksheet* in Phase 5 Tools, create a separate worksheet for each health problem. List the health problem under consideration (e.g., heart disease, substance abuse, domestic violence) on the top of the form and add a brief summary of the data collected – how the community ranked this as a priority, the related secondary data, and any other information (for example, are agencies already addressing this issue? Has this been identified as a priority by Healthy NC 2020?). Three criteria that are useful in rating community health problems are:

1. **Magnitude:** How many persons does the problem affect, either actually or potentially?
2. **Seriousness of the Consequences:** What degree of disability or premature death occurs because of the problem? What are the potential burdens to the community, such as economic or social burdens?
3. **Feasibility of Correcting:** Is the problem amenable to interventions (i.e., is the intervention feasible scientifically as well as acceptable to the community?). What technology, knowledge, or resources are necessary to effect a change? Is the problem preventable?

The CHA Team may develop other criteria (e.g., the extent to which initiatives that address the health issue will build on community strengths and resources, the availability of local technical expertise regarding the health issue, or the probability of quick success). Whatever criteria are selected, use the scoring system described below.

The CHA Team (and others involved in the priority setting process) should agree as a group on a score of 1 to 10 for the criteria for each health problem. These scores should be noted in the appropriate boxes on the *Problem Importance Worksheet*. A problem with a score of 10 on each criteria would indicate that it is of the greatest magnitude, has the most serious consequences, and is most feasible to correct. In contrast, a score of 1 on each criteria would indicate that it is of the least magnitude, has the least serious consequences, and is least feasible to correct. Add together the scores for each health issue to obtain the Problem Importance Index. The summary score should be noted in the box on the lower right-hand corner on the *Problem Importance Worksheet*.

☞ Step 2: Rank Health Problems

To rank the health problems, list all of the problems according to their ranking on the *Problem Prioritization Worksheet*. The problem with the highest number should be listed first and subsequent problems listed in descending order. The CHA Team should review the scoring for each of the problems and reach consensus about the ranking. It is recommended that the most significant health problems addressed by the community be limited to the top three to six (i.e., the problems with the three to six highest scores). These problems will be the focus of the community health action plans in Phase 8. Various groups within the community may address the remaining problems in some fashion, but the primary problems should be limited at this point in order to ensure success. After analysis of the problems, the CHA Team may need to return to the ranking list to select other health problems if there are significant barriers associated with the first choices.

Nominal Group Technique Method - The CHA Team can use a modified version of the nominal group technique to set priorities. In this technique, each person states in-turn, without discussion, the issues he or she believes should be considered priorities. Once a list is complete, an anonymous vote is taken for the top three to five ideas. The votes are counted and those receiving the most votes are the chosen priorities. Because the problem list is already identified by the community and the data available, the CHA Team does not need to generate this list of problems. The CHA Team can review the list and add, delete, combine, or clarify any issues. They may vote on the importance of each issue, count the votes, and see the results.

Because each community is different, some teams may choose to set three priorities—others may choose six or more, if there are resources to devote to these concerns. Suppose the assessment has uncovered 10 health problems from which five need to be selected. Pass out index cards to each individual. Ask him or her to use the above three criteria (i.e., magnitude, seriousness, and feasibility of correcting) to score each of the 10 health problems. Collect the index cards. So all scores will be anonymous, ask the Project Facilitator to read each index card aloud and note each person’s score on each health issue on a flip chart or board. Calculate the average score of each health problem and select the top five (i.e., highest scoring) problems to be addressed in the community health action plans.

The following example is from a team of four people who have uncovered 10 (labeled A–J) health problems during the CHA process. (*Note: this is just an example, hopefully the CHA Team will have input from more than four people.*) Each problem is scored up to 10 points for each category: magnitude, seriousness, and feasibility of correcting for a possible total of 30. From this analysis, health problems A, B, D, F, and G are the top five problems that this hypothetical CHA Team will address.

Health Problem	Person 1	Person 2	Person 3	Person 4	Average
A	30	28	26	29	28.25
B	26	25	20	25	24.00
C	10	15	20	13	14.50
D	18	20	25	16	19.75
E	10	12	8	20	12.50
F	20	18	15	16	17.25
G	28	28	30	26	28.00
H	12	15	20	15	15.50
I	8	10	20	16	13.50
J	10	8	12	16	11.50

Review Priorities

After a desired number of priorities are chosen, the CHA Team may want to look over the list and ask the following questions. If the answer is no to any of these questions, revisit the process and consider making changes in the priorities.



- Are they pleased with the priorities chosen?
- Will the community support these choices?
- Will the CHA Team, with the help of the community, be able to develop a plan that will make a difference?

Choosing Health Priorities: Key Issues to Consider

- ✓ There should be a clear determination of health priorities chosen by the community — community input is vital to the prioritization process.
- ✓ Determine the county's capacity to address health priorities—consider how to use the wide array of resources discovered in the community health resource inventory.
- ✓ Consider how amenable each health priority is to change—it is important to be realistic about the degree of change that the community may be able to bring about.
- ✓ Assess the economic, social, cultural, and political issues that might influence the community's ability to address health priorities.
- ✓ Identify community programs that may already be addressing the health priorities. It is important to avoid duplication of effort—developing partnerships with those who are already implementing a health strategy may be a more effective and efficient use of limited resources.

CHECKPOINT

Before leaving Phase 5, check to see if the following tasks are completed:

- ✓ Reported the results of the CHA findings to county residents.
- ✓ Listened to and summarized the input from community meetings.
- ✓ Used the Problem Importance Worksheet to rate the county's health problems.
- ✓ Used the Problem Prioritization Worksheet to rank the county's health problems.
- ✓ Selected health priorities to address in the community health action plans.

PHASE 5 TOOLS

Questions for County Residents

Now that you've heard what we learned in our CHA process, I'd like to hear what you think.

- Do you think our community is healthy? Why or Why not?
- What do you think are the most important health concerns in our community?
- What factors keep us from being healthier?
- What are some examples of individuals or groups/organizations that are working in our community to improve the health of the community?
- What are some assets in our community that are not being used to their full potential?
- What would you like to see changed that would make our community healthier?
- Would you like to be involved in any effort toward improving the community's health?

Problem Importance Worksheet

Complete a separate form for each health issue identified by the CHA Team.

Health issue: _____

Brief review of input and data on this issue

Check the appropriate box for each item and record the score under subtotal.

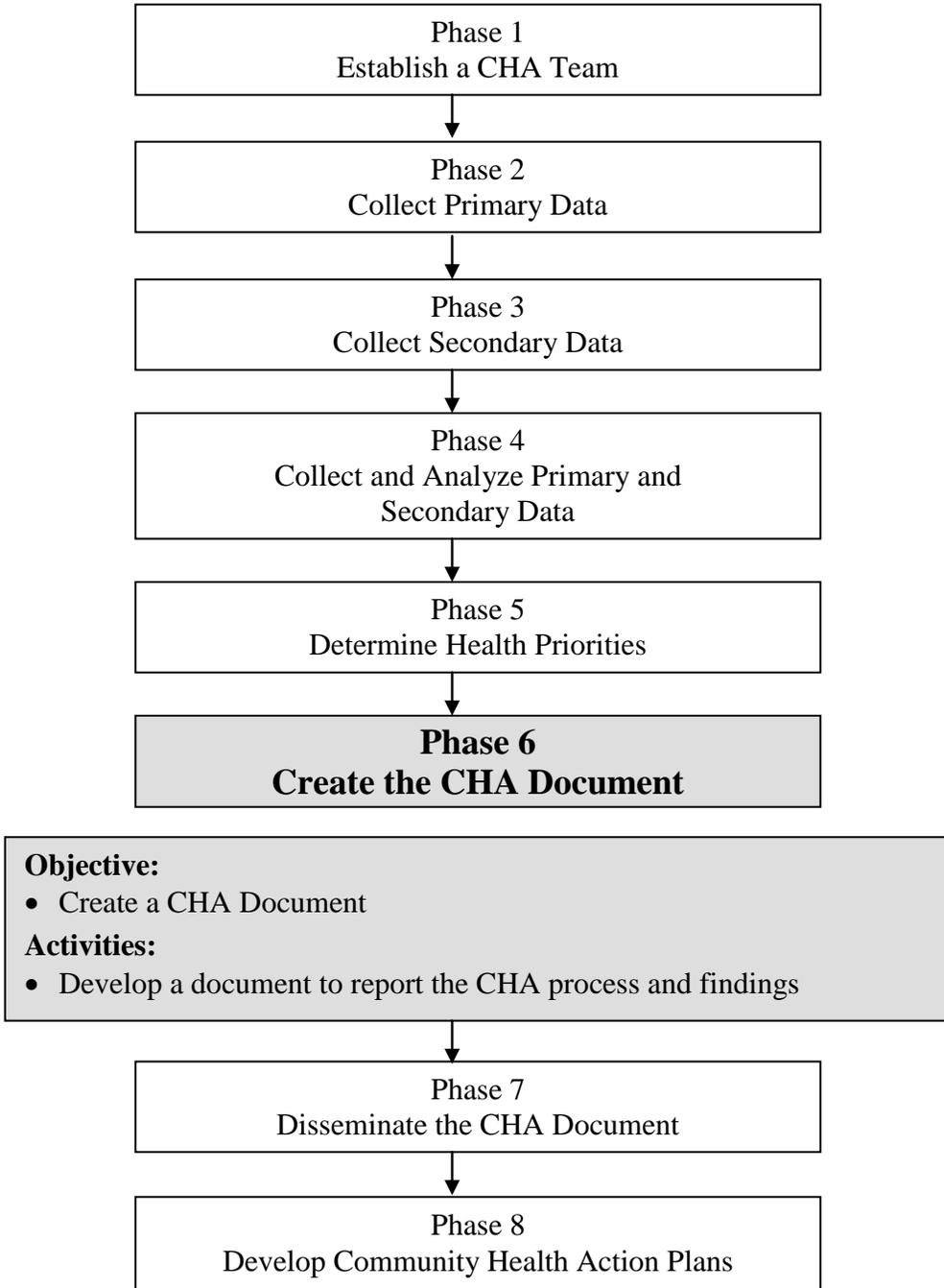
	10 High	9	8	7	6	5	4	3	2	1 Low	Sub- total
Magnitude											
Consequences											
Feasibility											
Other (define criteria-add rows as necessary)											
Problem Importance Index (Sum of Subtotals)											

Problem Prioritization Worksheet

List all of the problems identified in the Problem Importance Worksheet according to their ranking with the problem with the highest number listed first and subsequent problems listed in descending order.

Problem	Problem Importance Index
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Essential Services #3 Give people information they need to make healthy choices

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessments

Accreditation Activity 1.1.k Identify leading community health problems

Consolidated Agreement Include a narrative of the assessment findings

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 6: Create the CHA Document

Once the data report is presented to the community and health priorities determined, the information needs to be compiled into a CHA document. In this document, describe both the process including the individuals and organizations involved and the findings. The local board of health must review and approve the CHA document when completed. See the suggested outline below for details on information to include in the CHA document.

Some CHA Teams divide the writing responsibilities between several members – each person writes one section or chapter. This keeps the writing workload from being a burden on one person. If this method is used, one member of the CHA Team needs to review and edit the entire document after it is compiled to unify the formatting, writing style, and tone.

Write this document so that is easily understandable to a wide range of county residents. It is very important for the document to be accessible and understandable to people who do not have a background in health or a high level of education. Here are some tips to keep the document comprehensible to everyone:

- Avoid using jargon. Try to describe technical terms in simple everyday language (e.g., “asset mapping” can be described as “putting information together” about local programs and resources).
- Reference all acronyms the first time they are used. (e.g., “County X has rising numbers of people with cardiovascular disease (CVD).” If using the acronym many times throughout a long document, write out the full name at the beginning of each chapter.
- Break up the paragraphs in narrative sections. Shorter paragraphs are easier to read. Make sure each paragraph discusses just one topic.
- Use a charts, graphs, and tables to explain figures or numbers but introduce the topic and the data with a narrative.
- Streamline the document as much as possible. Much health information is available. Select only the most pertinent information. A document of several hundred pages is intimidating for even the most interested county residents.
- Cite data sources including the date the data was reported so that readers can find more information if they are interested in a particular issue.

Suggested CHA Document Outline

The following is a suggested outline of a CHA Document. Review community health assessments from other counties under County Profiles at www.publichealth.nc.gov/lhd/cha

➤ Title Page, Table of Contents, and Acknowledgements

List the CHA Team members and/or the organizations they represent, and their contributions including committee assignments and in-kind and financial contributions. This information can be included either in the acknowledgements or in Chapter 1 but include the complete list only once. A chart or table is a good way to display this information.

➤ Executive Summary

Provide a brief overview and description of the county and a summary of the health, social, and environmental issues and resources found during the assessment. The Executive Summary should be brief enough so it can be easily reproduced for distribution to key individuals and groups in the county but long enough to present the important information clearly. Emphasize health priorities and emerging issues and the information that supports them. **The Executive Summary is very important as this may be the only part of the CHA document that many people read.**

➤ Chapter 1 - Background and Introduction

Describe the importance of the CHA process to the health of the county residents. Comment on the relationship between community health assessment and public health department accreditation and program planning.

Discuss the process used to establish the CHA Team including information on the recruitment process. If an established community group served as the CHA Team, describe that group and their roles in the CHA process. Describe how the CHA Team functioned during the process (subcommittees established, instruments used to collect community data, data analysis process, data report development, priorities setting process, and plans for action plan development). Discuss key partnerships (e.g., public health department and community partners) that were formed or strengthened as the result of this process.

➤ Chapter 2 - Brief County Description

Geographic - Describe the area—list county and other district boundaries; include small area and county maps that describe roads, land features, development patterns, residential settlements, commercial locations, health facilities, and other key structures/facilities.

Historical - Describe briefly how the county was founded, its traditions, practices, and stories including legends, beliefs, old wives tales, etc. that are part of the county's tradition and may influence certain health behaviors.

Demographic - Describe the population by age, gender, race/ethnicity, urban vs. rural, year round vs. seasonal. Use maps, charts, and/or graphs to identify clusters or document growth. Develop a narrative to accompany the visual aids to explain the information.

List data sources including date data was collected/reported.

➤ Chapter 3 - Health Data Collection Process

Describe the process used for collecting primary and secondary data and briefly review the tools used. Include the tools in the Appendices. Outline the process used for analyzing the data collected and discuss the method used to set priorities.

➤ Chapter 4 - Health Data Results

Overview - Describe the overall health status, opinions, and needs of county residents summarized from the data collected. Discuss socioeconomic factors that influence the health of county residents. Use maps, charts, and/or graphs with accompanying narratives. Suggested information:

- General health status/healthy days
- Health resources inventory
- Educational and socioeconomic factors
- Health problems and disabilities
- Barriers to health care
- Assistance with prescription/medication needs

List data method/sources used including date data was collected.

Mortality - Describe the leading causes of death in the county and the infant mortality rate. Chart the leading causes of death by age, race/ethnicity, and gender. Compare this information to the information in the last CHA. Discuss reasons for the differences, if any. Use maps, charts, and/or graphs with accompanying narratives.

List data sources including date data was collected/reported.

Morbidity/Diseases – Describe the health problems or “disease burden” for the county and how county residents view these health problems. Compare this information to the information in the last CHA. Discuss reasons for the differences, if any. Use maps, charts, and/or graphs with accompanying narratives.

- Chronic disease rates
 - Cancer
 - Cardio vascular diseases
 - Diabetes
- Infectious disease rates
 - Influenza, pneumonia
- Injuries
- Obesity
- Oral Health
- Respiratory including tuberculosis
- STDs, HIV
- Maternal and Child Health
 - Prenatal care patterns including smoking behavior
 - Preterm birth
 - Low birth weight
 - Infant care practices including breastfeeding rates and “Back to Sleep” practices
 - Lead Poisoning

List data sources including date data was collected/reported.

Mental Health - Describe the mental health problems or “disease burden” for the county and how county residents view these health problems. Compare this information to the information in the last CHA document. Discuss reasons for the differences, if any. Use maps, charts, and/or graphs with accompanying narratives.

- Mental illness/developmental disabilities/substance abuse
- Access to counseling/referral services/case and crises management
- Treatment programs

List data sources including date data was collected/reported.

Health Care - Describe the health care needs and resources for the county and how county residents view these needs and resources. Compare this information to the information in the last CHA. Discuss reasons for the differences, if any. Use maps, charts, and/or graphs with accompanying narratives.

- Insurance coverage rates
- Hospital use
 - Barriers to access to healthcare
 - Causes of emergency room visits
 - Satisfaction with healthcare

List data sources including date data was collected/reported.

Determinants of Health – Provide an overview of the determinants of health and how these factors influence the health of county residents. Describe how county residents view these needs and resources. Compare this information to the information in the last CHA. Discuss reasons for the differences, if any. Use maps, charts, and/or graphs with accompanying narratives.

Social environment

- | | |
|---|--|
| ▪ Education – attainment rates, dropout rates | ▪ Neighborhoods – organizations, facilities, unique identities, development patterns |
| ▪ Families – child maltreatment and domestic violence rates, family composition, care for the elderly | ▪ Crime/intentional injuries |
| ▪ Religion | ▪ Social support/civic engagement |

Financial/Economic Factors

- | | |
|---|---|
| ▪ Income/poverty levels | ▪ Financial assistance (Medicaid, Work First, Child Care subsidies, Food Stamps, etc) |
| ▪ Employment rates | ▪ Transportation |
| ▪ Homeownership rates | |
| ▪ Food insecurity/access to healthy foods | |

Individual Behavior

- | | |
|---|---|
| ▪ Substance use – tobacco, alcohol, illicit drugs | ▪ Family planning – contraception, pregnancy/abortion/fertility rates |
| ▪ Overweight/obesity rates | ▪ Motor vehicle injuries (seat belt usage, drinking and driving) |
| ▪ Physical activity and nutrition | |
| ▪ Health screenings | |

Physical environment

- | | |
|----------------------------------|--------------------------|
| ▪ Pollution | ▪ Water quality |
| ▪ Indoor and outdoor air quality | ▪ Recreation |
| ▪ Lead | ▪ Transportation options |

List data sources including date data was collected/reported.

➤ **Chapter 5 - Prevention and Health Promotion** - Provide an overview of the prevention and health promotion needs and resources and how these affect the health of county residents. Describe how county residents view these needs and use the resources. Compare this information to the information in the last CHA. Discuss reasons for the differences, if any. Use maps, charts, and/or graphs with accompanying narratives.

- Screenings with educational/promotional programs
 - Cancer
 - Cholesterol/hypertension
 - Diabetes
 - HIV
 - Oral health
- Educational/promotional programs and policies
 - Nutrition and physical activity
 - Tobacco cessation
 - Alcohol use
- Community Support for Healthy Behaviors

List data sources including date data was collected/reported.

➤ **Chapter 6 - Community Concerns/Priorities** - Summarize the results of data that describe the priority concerns of the community. Recount the procedures used to choose the community's health priorities. List the priorities that the community plans to work on.

Future Plans

CHA Document

After the CHA document is completed, it should be presented to the local board of health for approval and then disseminated to the residents of the county. (Phase 7 covers developing a Dissemination Plan.) The local public health department is responsible for submitting the community health assessment document by the **first Monday in March (beginning with those who were originally due in December, 2014)** of the year it is due. Send one hard copy and one electronic (PDF or Word) copy to:

Branch Head
NC Community Assessment
Local Technical Assistance and Training branch
1916 Mail Service Center
Raleigh, NC 27699-1916
Email: beth.murray@dhhs.nc.gov

State of the County's Health Report

The CHA Team must plan for completing an annual "State of the County's Health Report" (SOTCH) in each of the three years before the next CHA is due. The SOTCH report is a yearly update of health concerns and actions taken to address them and is part of the Consolidated Agreement between the NC Division of Public Health and local health departments. Collect and report data on the priority health issues in the county and progress made towards addressing these issues.

The State of the County's Health Report should include:

- Review of major morbidity and mortality data for the county

- Review of the health concerns selected as priorities
- Progress made in the past year on these priorities
- Review of any changes in the data that guided the selection of these priorities
- Changes in the county that affect health concerns (such as economic and/or political changes, new funds or grants available to address health problems)
- New and emerging issues that affect health status
- Ways community members can get involved with ongoing efforts

The report may include geography, history, demographic, social, economic, and political information. The format should be one that is useful to people interested in and/or involved in addressing and promoting community health.

The SOTCH is due by the **first Monday in March** (during years between health assessments, beginning in March 2015 for those who were originally due in December, 2014). Send one hard copy and one electronic (PDF or Word) copy to:

Branch Head
 NC Community Assessment
 Local Technical Assistance and Training Branch
 1916 Mail Service Center
 Raleigh, NC 27699-1916
 Email: beth.murray@dhhs.nc.gov

Community Health Action Plans

After developing and implementing a dissemination plan to introduce the CHA to residents across the county, the CHA Team will need to meet to develop the Community Health Action Plans. These plans are due by the **first Monday in September** following submitting the CHA document in March. Send an electronic (PDF or Word) copy. (Phase 8 covers developing Community Health Action Plans.)

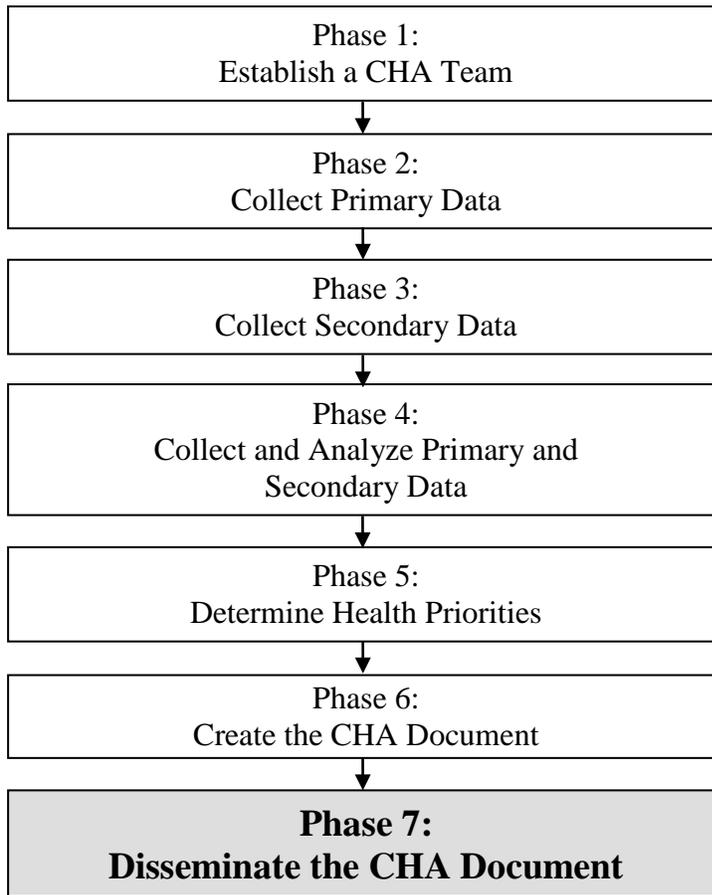
Several months after the Community Health Action Plans have been initiated, the CHA Team will need to meet to review the progress that the county has made in implementing the actions outlined in the plans. At that time, the CHA Team may want to revisit health issues that lacked sufficient resources to be addressed earlier to see if resources are available. Assessment is an on-going process, as is working to improve and promote the health of residents in the county.

CHECKPOINT

Before leaving Phase 6, check to see if the following tasks are complete:

- ✓ Created a CHA Document summarizing the process and findings
- ✓ Submitted the CHA document and planned for development of community health action plans
- ✓ Planned for future assessments

NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Objective:

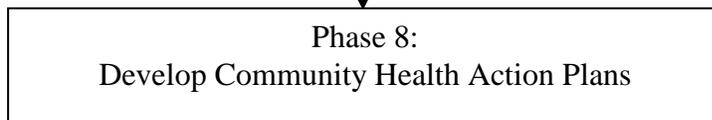
- Engage the community by sharing the CHA document
- Generate active participation in developing a community health action plan

Activities:

- Create a publicity committee
- Publicize information from the CHA document
- Keep the community informed about the results of the CHA and the development of a community health action plan

Tools:

- Sample press release



Essential Services #3 Inform, educate, and empower people about health issues

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessments

Accreditation Activity 1.3 LHD shall disseminate results of most recent CHA and SOTCH report to local health department stakeholders, community partners and general populations

Benchmark #11 LHD shall convene key constituents and community partners to identify, analyze and prioritize community health problems/issues

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 7: Disseminate the CHA Document

The CHA document has valuable information about the county. It is important for county residents to be aware of this information, how to access and use it, and how to become a part of the community response to the information collected. As community outreach is a very important task, it is advisable to appoint a committee or work group to take responsibility for the disseminating the CHA document if one is not already formed.

Because the CHA document can grow very large with so much health information, it's a good idea to make a summary document. The Executive Summary is a good starting point for this summary document. This summary can be two to four pages, and include a short description of the CHA process, a brief summary of the health information gathered, and a review of the priorities that resulted. Be sure to include information on how people can become involved in addressing these health priorities going forward. These summary documents are less expensive to print and can be used as:

- Brochures for partner agencies to distribute to their clientele or members
- Inserts for the local paper
- Handouts at local meetings or events
- Mailings to local community members
- Information packets for local elected leaders and stakeholders

There are many ways to reach out to the community to share the CHA information. Try a variety of methods including translations into all major languages spoken in the county to make sure to reach all sectors of the population. Present the information in several different ways so that people in the community who do not have access to computers or the internet, or who may have a low level of literacy can understand the information. Dissemination suggestions include:

- Presentations to the Board of Health, County Commissioners and other county leaders
- Interviews and coverage on local radio or TV stations and an article or series of articles featuring CHA findings in the newspaper
- Short Executive Summary to distribute to the public
- Limited numbers of copies of the full CHA Document (May need to get a sponsor, raise funds or secure in-kind donations to accomplish this.)
- CDs of the CHA Document for community partners (Much less expensive than printing)

- Copies of the CHA Document and CDs available for loan at the public health department, other human service agencies, and local libraries
- Multimedia presentation on the CHA Document and findings for community programs
- Electronic version of the CHA Document for the websites of all partner agencies

The media can be very helpful in getting the CHA information out across the county. The CHA process produces a lot of information that could be considered “big news” in the county. Draft press releases about the document, including where interested people can find the entire document, and send them to all the local newspapers, radio and TV stations. A press release example is included in the Phase 7 Tools.

Publicity Committee

The Publicity Committee needs members who:

- ✓ Represent important community institutions (hospitals, businesses, government, universities, etc)
- ✓ Are members of various communities (geographic areas, age groups, races, ethnicities, neighborhoods, trades, etc)
- ✓ Have unique skills and contacts in local communications (radio, newspapers, producing, advertising, publishers, printers, cable or public access TV)
- ✓ Are dynamic, enthusiastic, and creative people

Keep the Community Informed

The CHA process and final document can garner lots of interest from county residents. Make sure everyone knows how to get involved and stay informed – include this information in all publications. When new data are available, share them with the community so that they’re aware of how the trends are moving.

The State of the County’s Health (SOTCH) report that must be submitted during the years in between the CHA process is a valuable tool for helping keep the community up-to-date on priority health issues and efforts to address them. Reference the baseline from the CHA to illustrate progress and changes since the CHA process started.

The SOTCH report can be used to:

- Educate and inform county residents, community leaders, agencies, organizations, and others about the past year’s progress on certain health issues
- Enlighten and influence the development of policies that affect the health of the community
- Guide the planning and production of budgets for health programs
- Recruit interested county residents to participate in future activities

Keep contact lists of everyone who received the CHA document through the various channels and outreach methods used (people, media, partner organizations, distribution points, etc). When the SOTCH report is completed each year, use those same contacts to disseminate it.

The SOTCH report is intended to be a short, useful, "the more practical the better" document. For more information on SOTCH requirements and ideas, check out “Future Plans” in Phase 6.

CHECKPOINT

Before leaving Phase 7, check to see if the following tasks are complete:

- ✓ Disseminated the CHA Document through several means to many various segments of the county.
- ✓ Developed plans to keep county residents informed.

PHASE 7 TOOLS

Sample Press Release

Riverdale County Community Health Assessment Team

Led by:



**Riverdale County
Public Health Department**



**Healthy Riverdale
Partnership**
101 N. Main St.
Riverdale, NC 27000

FOR IMMEDIATE RELEASE

January 5, 20xx

For further information contact:

Holly Smith

Daytime phone: (919) 500-3000

Nighttime phone: (919) 600-4000

Email: HSmith@riverdalePHD.org

Local Community Assessment Team Researches Riverdale County's Health:

Population is Relatively Healthy but Shows Worrisome Trends

Riverdale, NC – The Riverdale County Community Health Assessment Team, a local coalition of health professionals, community volunteers, and local leaders, released a Community Health Assessment of Riverdale County this week. *(This press release would go on to detail, briefly, the “who,” “what,” “when,” “where,” “why,” and “how” of the CHA process. It would include quotes from community members and local leaders. It would reference where the full assessment document can be found and how people could find more information and become involved in the action planning process.)*

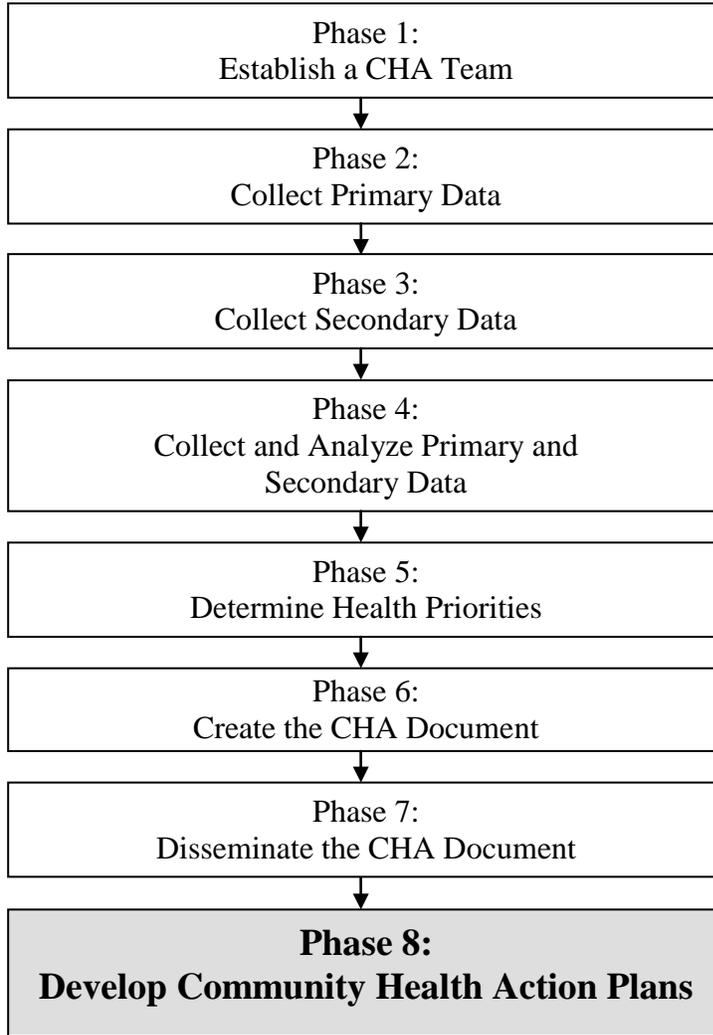
#

#

#

(This sample press release created using the Community Tool Box – www.ctb.ku.edu)

NORTH CAROLINA COMMUNITY HEALTH ASSESSMENT PROCESS



Objective:

- Create Community Health Action Plans

Activities:

- Develop interventions for addressing priority health issues
- Complete *Community Health Action Plan* forms

Tools:

- Resources for Evidenced-based Interventions
- Guidelines for *Community Health Action Plan* forms

Appendix: (Appendix at <http://www.publichealth.nc.gov/lhd/cha>)

- *Community Health Action Plan* forms

Essential Services #4 Mobilize community partnerships to identify and solve health problems

Benchmark #1 LHD shall conduct and disseminate results of regular community health assessments

Accreditation Standard 1.1.k Identify leading community health problems

Benchmark #11 LHD shall convene key constituents and community partners to identify, analyze and prioritize community health problems/issues

Benchmark #12 LHD shall develop strategies in collaboration with community partners to solve existing community health problems

Benchmark #13 LHD shall identify and build upon community assets and direct them toward resolving health problems

Benchmark #21 LHD shall lead efforts in the community to link individuals with preventive, health promotion, and other health services

Benchmark #22 LHD shall serve as a health care provider when local needs and authority exist, and the agency capacity and resources are available

Benchmark #38 Local board of health shall participate in the establishment of public health goals and objectives.

Consolidated Agreement Include community action plans to address the priority issues

Additional Accreditation Benchmarks may apply to the CHA (verify by Accreditation Site visit and LHD self-assessment instrument)

Phase 8: Develop Community Health Action Plans

An important use of the CHA findings and document is to develop effective community health strategies. The goal of Phase 8 is to develop plans of action for addressing those health issues that have been identified as priorities by the community through the CHA process. It is critical that the activities selected seem feasible to implement. The point is not to become overwhelmed with the process, but rather to clearly define the health priorities, actions, and expected results. The key to developing successful plans is to begin with health priorities identified by the community, develop measurable objectives to address these priorities, use evidence-based interventions, and plan realistic evaluation methods. Each plan should align with the Healthy NC 2020 Objectives.

Problem or disease-oriented work groups are usually the best way to develop action plans. For each issue (problem or disease), the assigned work group should look at the county data, think through the factors that contribute to the issue, identify factors that could perpetuate it, and identify barriers to reducing each issue. They can then develop:

- A hypothesis about why the issue exists
- Research and select evidence-based interventions to address the issue
- Identify needed resources

Work groups should consist of county residents and representatives of agencies/organizations with special expertise or interest in the issue, and/or those who are affected by the issue. For example, a teen drug-use prevention work group may include:

- Substance abuse treatment counselors
- School teachers and administrators
- Parents
- Social workers
- Law enforcement officers
- Substance abuse prevention agencies
- Teens

Good action plans are developed after carefully considering all the factors that cause and perpetuate the problem or disease they address.

A community health action plan must be submitted for **each** local priority issue on a *Community Health Action Plan* form which is adapted every year. The work group should review this required form before beginning the development of their community health action plan. They should complete the following steps when developing their plan.

Step 1: Description of the health priority

Develop a brief description of the health priority including county data from the CHA document to support selecting the priority and the risk factors that contribute to the issue. Risk factors may be:

- Lifestyles (e.g., poor dietary habits, sedentary lifestyle, substance abuse)
- Environmental (e.g., unsafe drinking water, substandard housing conditions)
- Inadequate health care system (e.g., insufficient primary care providers, lack of prenatal care services)

Identify risk factors specific to the county, because they vary from county to county. It is essential that the work group think through the complete sequence of interacting and contributing factors and take all of this information into consideration when designing interventions. They need to be aware that the risk factors may be related to more than one issue and that other work groups may be working on issues with the same risk factors. The table below gives some examples of health concerns and possible contributing factors.

Health issue	Possible Risk Factors
High infant mortality rate	Lack of prenatal care and delivery services Available care not affordable/accessible Available care not culturally sensitive Lack of transportation to health care High percentage of teenage mothers Low education levels of mothers (high school drop outs) Poor maternal nutrition Maternal smoking during pregnancy Family and neighborhood stress Multiples: twins, triplets, etc
High unemployment	Large community employer closing Area-wide economic slow down Seasonal unemployment Inability to attract new businesses to the area Lack of "start up funds" for new businesses High number of high school drop outs Available workers untrained for new jobs

There are several ways to identify risk factors. Some of these may have been identified during the CHA process. Ask people affected by the problem (i.e. teens who've gotten pregnant, people with no health insurance, smokers, etc.) what they think might solve the problems. Look in academic literature – this can reveal some broader ideas with an evidence base. Talk with a local college or university for help gathering and interpreting academic data. Include people in the work group who've been working on this issue in the county or region. They will know the history of barriers and successes in the area.

Don't be too quick to identify "*the lack of a service*" as the cause of a problem. Look to find the root causes of the problems in the county, and *then* start to think about what services might address those causes. For example, the cause of infant mortality may not be lack of prenatal care services; it might be the emotional stress of parents from living in poor and unsafe neighborhoods. This would require a very different intervention.

Step 2: Develop a S.M.A.R.T. health objective

Develop a S.M.A.R.T. health objective to address each of the health priorities including the anticipated change in behavior or disease rate, target population, and anticipated time frame to complete the objective. Link the objective with the Healthy NC 2020 Objectives. A measurable objective includes:

- The people whose behaviors, knowledge, and/or skills are to be changed as a result of the intervention. Target populations with health disparities whenever appropriate.
- The desired outcome which could include intended behavior, increased knowledge and/or skill changes. The work group needs to think in terms of feasible "outcomes," or the change in health status of the target population; quantify or describe how the

S.M.A.R.T. Objectives
✓ Specific - Be precise about what you are going to achieve.
✓ Measurable – How are you going to measure your objectives?
✓ Achievable - Are you attempting too much?
✓ Realistic - Do you have the resources to make the objective happen (people, financial resources, and physical resources)?
✓ Timed - State when you will achieve the objective (within a month? By February 2018?)

interventions will ultimately change residents' health status.

- How the progress will be measured or evaluated. The work group needs to consider available resources and capacity (time, staff, funding, etc.) when planning the measurement.
- What will be considered a success for this health priority? This needs to be realistic.
- What is the time frame for success?

Step 3: Develop interventions and prevention activities

An intervention is a process or action intended to address an existing or potential problem. Research evidence-based interventions that have been effective in addressing the health priority and select the intervention that is most feasible for the county. List five interventions that were researched on the *Community Health Action Plan* Form. See Phase 8 Tools section for sources of evidence-based interventions and policies. Use evidence-based interventions whenever possible because they:

- Provide a recipe or road map to address the problem - don't reinvent the wheel
- Are likely to succeed
- Help use scarce resources (\$, time, volunteers/partners) wisely
- Are increasingly required by funders – important if seeking outside funding to support action plans

After determining the interventions in the county that are already addressing the issue, select the new intervention and describe the proposed evidence-based intervention including the organizations that will provide and coordinate the intervention activities. Explain how the intervention addresses health disparities, individual, policy, or environmental change. Indicate who benefits most by the intervention and including information on the health disparities in a particular population. Detail each of the measurable steps involved in the intervention, including a time frame to accomplish the steps. State the setting where the steps will be accomplished (such as school, work site, faith group, health care system, or other community setting). Identify organizations and/or individuals who will be partners and describe their roles and responsibilities in implementing the steps of the planned intervention.

Intervention statements should not be simply the “flip-side” of the problem. For example, if teenage pregnancy is a problem in the county, “reducing teenage pregnancy” would be an objective of an intervention, but would not define the intervention itself. Rather, it is necessary to identify the process or action by which the problem will be targeted. For example, one community found that one of the reasons for high teen pregnancy rates in their area was that teens didn't have access to the local health clinics for information and appointments, because it was only open while they were in school. Therefore, their intervention was to increase teens' usage of local health clinics by opening the clinics during weekends and evenings.

Step 3: Consider community resources

Use information gathered in the Community Health Resources Inventory and by Asset Mapping if that was completed in Phase 2. This information will help identify institutions, organizations, and individuals who can play a role in targeting the health issues identified in the CHA process. When developing interventions, the work group may identify the absence of a

needed resource within the county. Outline which agencies/groups commit to which tasks or roles in getting the intervention accomplished.

Step 4: Describe the evaluation method

An evaluation method or plan must be developed to determine if the measurable objective was met and to determine its effectiveness. Evaluation can help the county have a better understanding of the health issue and lead to stronger programs or improved capacity to address the issue. The CDC Evaluation Working Group has provided additional information at www.cdc.gov/eval/resources.

There are two kinds of evaluation: process evaluation and impact/outcome evaluation.

Process evaluation measures the process of delivering an intervention. This is generally used to track numbers (e.g., programs, participants, etc.) that measures the implementation of the intervention or program. If this is collected while carrying out an intervention, it can be useful in identifying potential or developing problems, (i.e. whether the intervention is being delivered as planned, are target levels being met, is the intervention reaching the target population, and whether the plan needs to be modified). The main measurement collection methods for process evaluation are review of intervention documents which contain numbers of programs and participants, type of participants, and interview and survey responses.

Impact/outcome evaluation is used to measure intermediate (impacts) and longer-term (outcomes) effects of an intervention or program. This measures whether the intervention is having an impact on target population. The main method of measuring outcome evaluation is a comparison of the intervention group(s) with another group that does not receive the intervention (the control group). This is a difficult evaluation measure to use with community health action plans because of the need for controlling for so many factors. It is possible to measure changes at the individual level by measuring the same individuals' pre and post intervention in a randomly selected sample of individuals. Someone with skills in research and/or epidemiology will need to develop this evaluation design to fit the community health action plan.

Step 5: Complete the Community Health Action Plans

At this point in the planning process, all major health problems should have been identified and reviewed. All known factors that contribute to each problem should have been considered. Interventions should have been developed for those problems selected as priorities, and the appropriate resources reviewed. The final step in this phase is to complete a *Community Health Action Plan* form for the **current** year, which is a required form to document this information. Use a separate form for each priority health problem or disease. Sample form and instructions are located in the Appendix I.

The local health department must approve the Community Health Action Plans for the county and submit these plans by the **first Monday of September** of the year following the March in which the CHA was due. Once the plans have been approved, the CHA Team should turn responsibility for the leadership and/or implementation of the plans over to organizations and individuals identified in the plans.

CHECKPOINT

Before leaving Phase 8, check to see if the following tasks are completed:

- ✓ Developed intervention and prevention activities to address the health priorities identified in Phase 5.
- ✓ Completed community health action plan forms.
- ✓ Turned responsibility for planned actions over to the individuals and organizations identified in the Community Health Action Plans.

PHASE 8 TOOLS

Resources for Evidenced-based Interventions

Information on evidenced based interventions is available at the following sites.

- The Community Guide to Preventive Services at www.thecommunityguide.org. The Community Guide is an essential resource for people who want to know what works in public health. It provides evidence-based recommendations and findings about public health interventions and policies to improve health and promote safety. The Task Force on Community Preventive Services -- an independent, nonfederal, volunteer body of public health and prevention experts -- makes these findings and recommendations based on systematic reviews of scientific literature conducted under the auspices of the Community Guide. CDC provides ongoing scientific, administrative, and technical support for the Task Force. This organization reviews over 200 interventions and describes what elements of interventions are effective, not just the whole interventions.
- Canadian Best Practices Portal at cbpp-pcpe.phac-aspc.gc.ca. This site has a user-friendly interface. To scroll through their list of 324 interventions click on cbpp-pcpe.phac-aspc.gc.ca/intervention/list.
- Cochrane Reviews at www.cochrane.org/cochrane-reviews. This is geared toward a medical audience, but it includes community interventions and provides a lay-language summary at bottom of each review.
- ERIC search engine for education journals, including school health at www.eric.ed.gov.
- Google Scholar at scholar.google.com. The information on this is not necessarily peer-reviewed so quality-screening is necessary. The search can be tailored using “Advanced Scholar Search”
- Healthcare innovation information is available at
 - AHRQ Health Care Innovations Exchange: www.innovations.ahrq.gov
 - Federal clearinghouse of programs
 - US Preventive Services Task Force Recommendations: www.uspreventiveservicestaskforce.org/recommendations.htm
- MedlinePlus at www.nlm.nih.gov/medlineplus.
- NC Health Info at nchealthinfo.org.
- PubMed search engine for medical articles at www.ncbi.nlm.nih.gov/pubmed. Search for health topic and “evidence-based intervention,” then narrow search by age group/ethnicity/ etc.

APPENDIX A – North Carolina Public Health Standards

CORE PUBLIC HEALTH FUNCTIONS

ACCREDITATION STANDARDS FOR COMMUNITY HEALTH ASSESSMENT

ACCREDITATION CHECKLIST FOR COMMUNITY HEALTH ASSESSMENT

ACCREDITATION CHECKLIST FOR SOTCH REPORTS

APPENDIX B - FREQUENTLY ASKED QUESTIONS

APPENDIX C - PROBLEMS WITH RATES BASED ON SMALL NUMBERS PRIMER

APPENDIX D - AGE-ADJUSTED DEATH RATES PRIMER

APPENDIX E - SAMPLING GUIDE FOR COMMUNITY HEALTH ASSESSMENT

APPENDIX F - TWO-STAGE CLUSTER SAMPLING

APPENDIX G - SMALL GROUP DISCUSSION TOOL KIT

APPENDIX H – DATA RESOURCE GUIDE

APPENDIX I - SAMPLE COMMUNITY HEALTH ACTION PLAN FORM