TECHNICAL REPORT (TR-314)

Criteria for Assessing the Usefulness of Community Health Assessments: A Literature Review

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PREFACE

RAND Health is working under contract with the Public Health Information Group of the Center for Community Health in the New York State Department of Health, with financial support from the Centers for Disease Control and Prevention's (CDC) Assessment Initiative, to develop a web-based tool to determine and enhance the usefulness of Community Health Assessments (CHA) in New York State. The product of this work will be a web-based tool that allows end users of CHA products to assess their usefulness. Feedback from this tool will aid CHA developers in local health departments in identifying strengths and weaknesses of their CHA process and products, and will include suggested links to information that would enable them to improve CHA usefulness.

As a first step in this process, we conducted a review of studies and publications assessing CHAs to identify factors and criteria that may characterize CHA processes and products, based on the reported experience of previous users. Due to the dearth of existing information describing CHAs, there were no existing criteria for us to apply to crafting judgments regarding "usefulness," of these CHAs but we hoped that learning about characteristics of existing CHAs would provide us with content upon which to build the web-based tool. This paper describes our findings.

Based on this paper, we created a list of 85 criteria and 2 open-ended questions. After feedback from experts and practitioners in five New York counties and on a national technical advisory panel, and presentations at the CDC's Assessment Initiative conference in 2004, we reduced the list to 32 close-ended criteria in three categories (CHA content, format, and impact) plus 3 open-ended questions. Following that, we conducted e-mail survey of CHA users in the same five New York counties, and based on that input reduced the number of close-ended criteria to 21. These criteria were then used on a trial basis to evaluate the usefulness of five New York county CHAs, and a report is

being developed to feed the provide results back to CHA developers in a way that helps them identify strengths and weaknesses of their CHAs and provides suggested links to information that would enable them to improve CHA usefulness. In the final phase of the project, this tool will be refined, rolled out in New York and elsewhere, and evaluated.

We are grateful for comments on earlier drafts from Susan Straus of RAND and Priti Irani and Cate Bohn of the New York State Department of Health. We have also benefited from presentations of an earlier draft of this material at the national meeting of the CDC Assessment Initiative in Atlanta in September 2004 and as a webcast by the Assessment Initiative Technical Advisory Group in November 2004.

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SUMMARY

Community health assessments (CHAs) are a means of identifying and describing community health problems, gaps and strengths in services, and interventions to improve the health of the community. To inform the development of a web-based tool to determine and enhance the usefulness of CHAs, we performed a literature review of studies/publications to identify factors/criteria for a useful CHA process. We found no rigorous, systematic reviews of CHAs, nor any comprehensive summaries of CHA strengths, weaknesses, and outcomes. However, we used this opportunity to review descriptive reports of a number of CHA processes throughout the US and learn about common—and not so common—characteristics that might be used in the web-based tool.

We found substantial variation among CHAs with respect to process, participants, goals, and products. Few CHAs seem to focus narrowly on health care, without attention to other community issues that can affect health. Most CHAs seem to include an improvement aspect—going beyond assessing the problems in a community to develop a plan for addressing them.

This review and subsequent discussions led us to identify 21 criteria to describe the usefulness of CHAs. With respect to the content, for instance, the CHA document should clearly state the goals and purpose of the CHA, include the most important aspects of the community's health, allow comparisons with data from other communities or other appropriate benchmarks, allow comparisons over time, present data in meaningful subgroups of population, provide sufficient focus on positive characteristics, and sufficiently document the process and methods used to create the CHA. The format of the CHA document should use a consistent format to present information on different topics in the report, include both summary and detailed versions to be useful for a variety of audiences, be well organized so that content is easy to find, easy to understand, clearly indicate the relationships among

related health indicators, include narrative and graphic representation of key findings to meet the needs of varying audiences, uses a similar structure or data elements as other community planning tools in use, be available online, be suitable for photocopying, and clearly identify the data sources used. Finally, CHA document should serve as a resource to prioritize and plan services, for writing grant applications and to guide a comprehensive health promotion strategy.

BACKGROUND

Many of the challenging health problems facing the United States in the 21st century require an understanding of the health not just of individuals but also of communities. Problems such as providing immunizations to all children, controlling epidemics, addressing the causes and consequences of obesity, and dealing with environmental health risks all demand comprehensive rather than disease-specific solutions, and solutions that take into account the needs of entire populations. While individual access to good health care is a necessity, medical care alone is not sufficient to address problems related to personal behavior (e.g., diet, exercise, smoking, alcohol abuse) and social problems (e.g., violence, drugs) or caused by environmental threats. Moreover, while the control of emerging infections and preparations against the threat of bioterrorism require a substantial medical response, such problems also require population-based solutions such as risk assessment and risk communication, quarantine, and mass immunization. Due to the complexity of these multi-faceted challenges, a community's health problems can be addressed most effectively through collaboration among health care systems, community groups, government, and business.

The challenge of maintaining and improving community health has led to the development of a "population health" perspective (Friedman and Starfield, 2003)[1]. Population health can be defined as "the health outcomes of a group of individuals, including the distribution of such outcomes within the group" (Kindig and Stoddart, 2003)[2]. A focus on population health implies a concern for the determinants of health for both individuals and communities; the health of a population grows out the community's social and economic conditions as well as the quality of

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[1] Friedman DJ, Starfield B, 2003. Models of Population Health: Their Value for US Public Helath Practice, Policy, and Research. *American Journal of Public Health.* 93:366-9.

[2] Kindig D, Stoddart G, 2003. What is population Health? *American Journal of Public Health.* 93:380-3.

its medical care. Thus, a community's health is determined by interactions among multiple factors, including the social environment, the physical environment, genetic endowment, an individual's behavioral and biological responses, disease, health care, health and function, and well-being[3]. The population health perspective includes a focus on resource allocation and accountability, implying the need for measures of health outcomes and evidence linking interventions to those outcomes[4].

This broader understanding of health and its determinants suggests that many public and private entities have a stake in or can affect the community's health. These stakeholders can include health care providers (clinicians, health plans, hospitals, and so on), public health agencies, and community organizations explicitly concerned with health. They can also include entities that may not see themselves as having an explicit health role, such as schools, sports clubs, employers, faith communities, and agencies providing social and housing services, transportation, education, and justice[5].

In this context, community health assessments (CHA) are a means of identifying and describing community health problems, gaps and strengths in services, and interventions to improve the health of the community. A CHA is intended to help a community maintain a broad, strategic view of its population's health status and the risk factors that can influence it. CHAs are also central to the Institute of Medicine (IOM) call for "public health agencies to regularly and systematically collect, assemble, analyze, and make available information on the health of the community, including statistics on health status, community health needs and epidemiologic and other studies of health problems."

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[3] Evans RG, Stoddart GL, 1990. Producing health, consuming health care. *Social Science and Medicine.* 31:1347-63.

[4] Kindig D, Stoddart G, 2003. What is population Health? *American Journal of Public Health.* 93:380-3.

[5] Institute of Medicine, 2003. *The Future of the Public's Health in the 21st Century.* Washington: National Academy Press.

The term Community Health Assessment or CHA is used in the literature to indicate both a written product (which may be available on paper or online) and the process that produces it. Where possible, we distinguish between these two uses as follows. CHA documents include various statistical indicators of health status, risk factors, and so on. Measures of community resources and organizational performance relating to the county health department or other entities in the county may also be included. These indicators may refer to an entire county population or to subgroups defined by geography, race and ethnicity, or in other ways. Time trends in these indicators may be presented, and the indicators can be presented in tabular and graphical formats. CHA documents may also include information about the causes and consequences of health problems, as well as possible solutions or agreed upon action plans. The CHA process, on the other hand, refers to the activities in which the county engages to develop the CHA document. A local health department may produce the CHA on its own, or a coalition of stakeholders in the community may be involved. The role of the stakeholders may be limited to guidance on the choice of indicators to be included in the CHA. In other cases stakeholders may make commitments to carry out parts of a community health improvement action plan specified in the CHA. The CHA process may also include a process for monitoring progress towards the CHA goals and objectives and making midcourse corrections if necessary.

METHODS

Our initial objective was to perform a literature review of studies/publications assessing the CHA process to identify factors/criteria for a useful CHA process. We found very few studies/publications that were evaluative in nature and made some judgment regarding the usefulness of CHA characteristics. Therefore, we used the opportunity to also present key characteristics of a range of CHAs to provide a springboard for discussion about potential strengths and weaknesses. This review was conducted in mid-2004.

After a review of the available bibliographic sources, we searched the Medline and Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases going back to the 1980s. We used the search phrases "community assessment," "community health assessment," and "CHA." When we uncovered relatively few references using these terms, we searched on a variety of loosely-related terms, using the authors' knowledge of the public health literature.

Additionally, we reviewed the websites of a number of state and local public health agencies (LPHAs), along with Federal health agency sites, focusing on those that resulted from a search for the phrases "community assessment," "community health assessment," and "CHA." We also accessed the websites of a number of state health departments to identify any statewide CHA models. We sought to gather information about a wide range of CHAs and CHA users in the United States, including the experiences of communities that vary in size, population, rural vs. urban location, and geographic distribution. Given the objectives of this review, we did not seek to conduct an exhaustive or representative search, identifying "all" or a random sample of the CHAs in the country. Rather, we reviewed documents until we believed that we were unlikely to learn anything new from additional searches about potential dimensions of usefulness. Finally, we include several brief descriptions of New York counties' CHA processes. We requested summaries from local health

department representatives that sit on the advisory group for the New York Community Health Assessment project. As a whole, we believe that this search strategy has captured a broad range of processes, CHA content, and CHA findings, and most importantly, gave us many ideas about what makes a CHA useful.

FINDINGS

We reviewed approximately 50 journal articles and Internet-based descriptions of CHAs. The specific examples and quotes we provide in this section are not meant to reflect our judgment that the CHA processes and content described are more or less successful than others. Additionally, we do not provide examples from all of the CHAs that we reviewed, but rather we chose examples to illustrate the range of issues that were raised.

We first present several different definitions of community health assessment. We then summarize characteristics of CHAs from the sources we reviewed, provide descriptions of the CHA process in several New York counties, and then report on the few previous evaluations of CHAs that we found.

DEFINITIONS OF COMMUNITY HEALTH ASSESSMENT

Definitions of CHAs vary as much as the process and scope associated with the CHAs that we reviewed. While some focus on the data collection and analysis aspects, others tie these aspects into the development of objectives and action plans for health improvement. Some are more focused on a document, while others address the process of health assessment. Several examples are listed below:

- “The Community Health Assessment is part of a strategic plan that describes the health of the community by collecting, analyzing and using data to educate and mobilize communities, develop priorities, garner resources, and plan actions to improve public health.” (New York State's Working Definition of Community Health Assessment)

- “A community health assessment involves collecting and analyzing data from a variety of sources to learn about the strengths and needs of the people and services within a community.”[6] (North Carolina Department of Health)

- “Community health assessment and improvement initiatives are designed to direct local efforts toward improving a community’s health through a partnership between public and private health organizations and other stakeholders.”[7] (Michigan Department of Health)

- “The process of analyzing the needs and assets of a community to assist in setting priorities and documenting the relative success of a community-wide effort for improving health and quality of life.”[8] (Partnership for the Public’s Health)

- “Collecting, analyzing, and using data to educate and mobilize communities, develop priorities, garner resources, and plan actions to improve public health.” [9] (Washington State Assessment in Action Partnership)

- “A dynamic process undertaken to identify the health problems and goals of the community, to enable the community-wide establishment of health priorities, and to facilitate collaborative action planning directed at improving community health status and quality of life involving multiple sectors of the community." (Voluntary Hospitals of America)[10]

- “Tools developed to guide communities in identification of health concerns, recognition of multiple factors which affect people’s

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[6] http://www.schs.state.nc.us/SCHS/about/chai.html
[7] http://www.michigan.gov/documents/PartI-2_37390_7.PDF
[8] http://www.partnershipph.org/co13/resc/glossary.html
[9] http://www.doh.wa.gov/EHSPHL/AIA/chapeval.htm
[10] http://www.cancernetwork.com/journals/manage/m9609d.htm

health, development of collaborative ways of working, identification of resources, and generation of ideas for community involvement and action."[11]

Community health assessments are sometimes not termed as such, instead being called community planning processes, or community diagnoses. On the other hand some efforts titled "community health assessments" or "community assessments" are not directly related to physical health *per se.* Some communities look at other issues with a more indirect impact on health, such as children's well-being, crime and safety, or the environment and pollution through a community assessment.[12]

COMMUNITY HEALTH PROFILES AND PERFORMANCE MEASURES

The population health perspective focuses on the community rather than individuals. To properly manage its health, policymakers need regular measurement of the community's health status as well as its determinants and consequences. In this perspective, community health profiles are the population-based health equivalent of regular medical checkups, helping to identify problems that need to be addressed and informing community priority setting activities[13].

Community health profiles include a set of measures that summarize the health of a community and facilitate comparisons over time and with other communities. Experience with social indicators suggests that a community health profile include a set of indicators that is limited in number so that the story is not lost in the details and must be comprehensive so that all major issues are addressed. Furthermore, the indicators must be individually significant to keep the readers'

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[11] Curtis D, 2002. Evaluation of Community Health Assessment in Kansas. *Journal of Public Health Management and Practice*. 8;4:20.

[12] http://www.ncrel.org/sdrs/areas/issues/envrnmnt/css/ppt/chap2.htm

[13] Stoto MA, 1992. Public health assessment for the 1990s. *Annual Review of Public Health 1992*; 13:59-78.

attention and work together to tell a coherent story of the community's health. To be useful the indicators must be capable of being monitored over time and disaggregated to subgroups of the population that might suffer from health disparities or have other vulnerability patterns. The indicators must also be valid and well-conceptualized so that they can be clearly interpreted. They also must have sufficient reliability so that changes over time and between different groups in the population can be discerned.[14]

One concept of a community health assessment is prominent in the IOM's Community Health Improvement Process (CHIP).[15] Developed based on a review of existing community health assessment and improvement efforts, the IOM's CHIP includes two principal interacting cycles based on analysis, action, and measurement (see Figure 1). As the upper right-most oval in the figure suggests, a CHIP's problem identification and prioritization cycle should include production of a "community health profile" - another name for a CHA - that can provide basic information to a community about its demographic and socioeconomic characteristics and its health status and health risks. This profile would provide background information that could help a community identify issues that need more focused attention and put other health data in context.

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[14] Stoto MA, 1992. Public health assessment for the 1990s. *Annual Review of Public Health 1992*; 13:59-78.

[15] Institute of Medicine, 1997. *Improving Health in the Community: A Role for Performance Monitoring.* Durch JS, Bailey LA, Stoto MA, eds. Washington: National Academy Press.

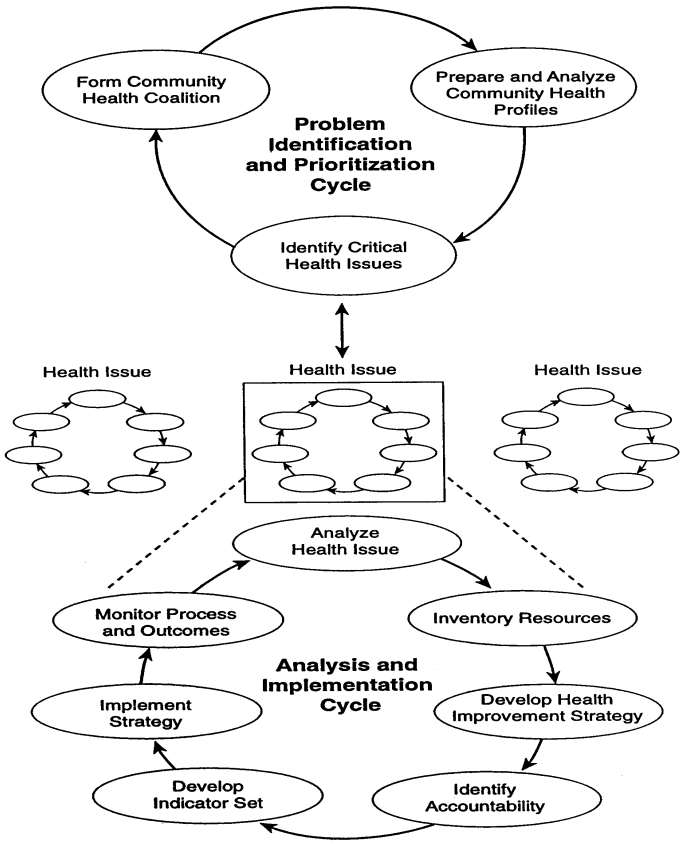

Figure 1. The IOM's Community Health Improvement Process (CHIP)[16].

In this model, the set of indicators for a community health profile might include measures of:

- Sociodemographic characteristics, such as the high school graduation rate and median household income.
- Health risk factors, such as child immunization coverage, adult smoking rate, and obesity.
- Health care resource consumption, such as per capita health care spending.
- Health status, such as the infant mortality rate by race/ethnicity, numbers of deaths due to preventable causes, and confirmed child abuse and neglect cases.

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[16] Institute of Medicine, 1997. *Improving Health in the Community: A Role for Performance Monitoring.* Durch JS, Bailey LA, Stoto MA, eds. Washington: National Academy Press.

- Functional status, such as the proportion of adults in good to excellent health.
- Quality of life, such as proportion of adults (in a population survey) satisfied with the quality of life in the community (IOM, 1997)[17].

The IOM's CHIP also includes the development of a set of specific, quantitative performance measures, linking accountable entities to the performance of specific activities expected to lead to the production of desired health outcomes in the community. Although conceptually separate from a CHA in the IOM's model, similar measures appear in many of the CHAs that we reviewed. Selecting these indicators requires careful consideration of how progress is achieved in health. A set of indicators should balance population-based measures of risk factors and health outcomes and health systems-based measures of services performed. Capacity measures (sometimes known as structural measures, e.g. the availability of trained staff) and process measures (such as availability of insurance coverage for immunizations) might be included, but only to the extent that there is evidence that links them to health outcomes. The IOM argued that to encourage full participation in the health improvement process, the selected performance measures should also be balanced across the interests and contributions of the various accountable entities in the community, including those whose primary mission is not health specific. It has also been suggested that the set of performance measures include some for which progress may be seen in the short run in order to maintain a sense of momentum for the participants[18]. In the population as patient metaphor, once a disease or health problem has been diagnosed, numerous clinical indicators are needed to assess treatment progress.

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[17] Institute of Medicine, 1997. *Improving Health in the Community: A Role for Performance Monitoring.* Durch JS, Bailey LA, Stoto MA, eds. Washington: National Academy Press.

[18] Institute of Medicine, 1997. *Improving Health in the Community: A Role for Performance Monitoring.* Durch JS, Bailey LA, Stoto MA, eds. Washington: National Academy Press.

A variety of principles have been used to suggest appropriate measures for community health profiles (Fielding et al., 1999)[19]. To guide their proposed "California Health Report," Halfon et al. (2000)[20] use a comprehensive and integrative model of community health that includes a range of health outcomes and determinants over the life course. The IOM suggested three different organizational principles in its suggestion for Healthy People 2010's Leading Health Indicators: health determinants and health outcomes, life course determinants, and prevention[21].

Community health assessments are intended to help a community maintain a broad strategic view of its population's health status and factors that influence health in the community. They are not expected to be a comprehensive survey of all aspects of community health and well being, but should be able to help a community identify and focus attention on specific high-priority health issues. The background information provided by a health assessment can help a community interpret data on those issues[22].

Health assessments can help motivate communities to address health issues[23]. For example, evidence of low immunization rates among children or the elderly might encourage various sectors of the community to respond, through "official" actions (e.g. more systematic provider

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[19] Fielding JE, Sutherland CE, Haflon N. 1999. Community health report cards: Results of a national survey. *American Journal of Preventive Medicine* 17:79-86.

[20] Halfon N, Ebener PA, Sastry N, Ahn P, Cherman L, Hernandez J, et al. (2000). California health report (MR-1205-TCWF). Santa Monica, CA: RAND. Available at: www.rand.org/publications/MR/MR1205. Accessed August 30, 2005.

[21] Institute of Medicine, 1999. *Leading Health Indicators for Healthy People 2010: Final Report*. Chrvala CA, Bulger RJ, eds. Washington: National Academy Press.

[22] Institute of Medicine, 1997. *Improving Health in the Community: A Role for Performance Monitoring.* Durch JS, Bailey LA, Stoto MA, eds. Washington: National Academy Press.

[23] Rhein M, et al., 2001. Advancing community public health systems in the 21st century: Emerging strategies and innovations from the Turning Point experience. Washington: National Association of County and City Health Officials. http://www.naccho.org/GENERAL322.cfm.

assessments of patients' immunization status) and through community action (e.g. volunteer groups offering transportation to immunization clinics). Comparisons based on health assessment data may also motivate and help communities in assessing health priorities. These comparisons can be based on measurements over time within an individual community, comparisons with other communities or with state of national measures, or comparisons with a benchmark or target value such as those put forth in *Healthy People 2010*[24]. Community health assessments can also help a community focus on reducing health disparities[25]. More generally, community health assessments can provide the basis for all local public health planning, giving the local health department the opportunity to identify and interact with key community leaders, organizations, and interested residents about health priorities and concerns.

REVIEW OF CHA CHARACTERISTICS

We now report briefly on our findings gleaned from descriptions of CHAs in the public health and related literature and on various health departments' and other agencies' websites.

CHA Prevalence. CHAs are now conducted in the majority of LPHAs throughout the United States. According to a 2001 National Association of City and County Health Officials (NACCHO) review of the local public health infrastructure,[26] 55% of LPHAs conducted a CHA during the previous 3 years; most of the other LPHAs planned to within the subsequent three years. That said, there is substantial variation in CHA scope, complexity, use of data, and products. Those not planning to conduct CHAs were small and had few FTE staff. More recent,

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[24] Institute of Medicine, 1997. *Improving Health in the Community: A Role for Performance Monitoring.* Durch JS, Bailey LA, Stoto MA, eds. Washington: National Academy Press.

[25] Alameda County Public Health Department, 2003. Alameda County Health Status Report 2003. Oakland, CA: Alameda County Public Health Department. Available online: http://www.co.alameda.ca.us/publichealth/information/info.htm

[26] http://www.naccho.org/files/documents/chartbook_frontmatter1-2.pdf

comprehensive national data describing the prevalence of CHAs are not available.

Frequency of CHAs. According to the sources we reviewed, CHAs are most often annual, whether this is mandated at the state level or chosen by the LPHA. In some states, CHAs are organized and overseen by the state health department and conducted on a multi-year cycle, with LPHAs completing them on a staggered timeline. In North Carolina, for example, LPHAs are required to complete CHAs every four years.[27] In other states and communities, CHAs are conducted in parallel with a larger public health goal setting or strategic planning effort such as Healthy People 2010 or related efforts.

CHA Goals and Objectives. Stated CHA goals and objectives vary by community but generally relate to understanding, describing, and developing strategies to improve the health of the community. For example, the 2001 Witchita/Sedgwick County, Kansas health assessment process aimed to "determine the extent of medical care problems in the community, including: 1. Problems related to medical care access and cost of medical care; 2. Determine the health status of the community; and 3. Examine the behavioral risk problems in the community."[28] The goal of the Ramsey County, Minnesota community health planning process "Is to identify priority community health problems through a community assessment process and to develop an action plan with outcomes (goals) and evaluation criteria (objectives) for addressing those problems."[29]

CHA Tools, Processes, and Models. LPHAs either develop their own CHA processes or utilize a process developed at the state or national level to guide their efforts. Small, rural, under-resourced communities seem more likely to use a process developed at a higher level, whereas larger communities with more substantial resources—both financial and human—are more likely to develop their own process. According to NACCHO

[27] http://www.healthycarolinians.org/assess.htm
[28] http://www.sedgwickcounty.org/chap/index.html
[29] http://www.co.ramsey.mn.us/PH/phchs/CHSPlan_ProgPlanSum.htm

chartbook, 51% of LPHAs used an established tool or model for CHAs.[30] Among those using an established tool, NACCHO's Assessment Protocol for Excellence in Public Health (APEXPH)[31] was most popular. Non-metropolitan area LPHAs were more likely to use state health department-developed tools.

NACCHO's newer CHA tool Mobilizing for Action through Planning and Partnerships (MAPP) builds on lessons learned from APEXPH, and as of mid-2004 was being piloted in Amherst, Massachusetts, Columbus, Ohio, Lee County, Florida, Mendocino County, Califorina, Nashville/Davidson County, Tennessee, Northern Kentucky District, Kentucky, and San Antonio, Texas. MAPP is "a community-wide strategic planning tool for improving community health. Facilitated by public health leadership, this tool helps communities prioritize public health issues and identify resources for addressing them."[32] Whereas APEXPH's intended users were local health officials,[33] MAPP has a broader focus on *community-wide planning*.

The Work Group on Health Promotion and Community Development at the University of Kansas in Lawrence, Kansas developed the online Community Tool Box[34], which provides a substantial number of resources, including a chapter on assessing community needs and resources with detailed guidance on relevant topics such as data collection strategies, coalition development, and conducting surveys. It is not clear from the Internet site the number and type of organizations that have put these resources into practice.

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[30] http://www.naccho.org/files/documents/chartbook_frontmatter1-2.pdf

[31] http://naccho.org/topics/infrastructure/APEXPH.cfm

[32] http://naccho.org/project77.cfm

[33] http://naccho.org/topics/infrastructure/APEXPH.cfm

[34] http://ctb.ku.edu/about/

We also identified commercial CHA products.[35] One example is from Professional Research Consultants,[36] which is described as "a data-driven approach to identifying the greatest health needs of your community. It is designed to identify areas of potential community health action and serve as a periodic tracking measurement of the health status and needs of a community." The process described is much like other CHAs and includes community health panels; primary data collection based largely on the Behavioral Risk Factor Surveillance Survey (BRFSS); and review of secondary data including vital statistics, demographics and violent crime data. The product compares community data to state-level data and to Healthy People 2010 targets, where available. All findings are available on-line to users, but we could access no examples of finished products. Another commercial tool—though not an overall CHA package—is the VitalNet Community Health Assessment Software[37] developed by Expert Health Data. It "lets users easily analyze health statistics [and is used for] linking, analyzing and disseminating health data sets. Vitalnet provides the data analysis/data dissemination infrastructure for a national, state, city, or corporate data center." Indicators included in the software include births, cancer registry data, divorce data, hospital discharge data, and others.

A number of states—as with New York—coordinate the CHA efforts of local public health agencies and provide substantial technical assistance for their conduct. Examples include:

- The Iowa Community Assessment and Health Improvement Plan initiative[38] developed a Community Health Needs Assessment & Health Improvement Plan toolkit, which is available on the Internet. The toolkit includes a description of the process, practical instructions for implementing it, a description of the

[35] The inclusion of these descriptions here is for illustrative purposes only, and we do not intended to signify endorsement by the authors or the RAND Corporation.

[36] http://www.prconline.com/services-healthassessment.asp

[37] http://www.ehdp.com/vitalnet/faqs.htm

[38] http://www.idph.state.ia.us/do/CHNA/chnadata.htm

leading health indicators used, and examples of the health improvement plans that result from the CHA process. Their websites also include case studies of CHAs, a number of secondary datasets, and worksheets for communities to use as they conduct their CHAs.

- The North Carolina Healthy Carolinians initiative developed a standardized Community Assessment Guide Book for use throughout the state.[39] The guidebook describes in detail the eight steps in the assessment process, including: Establishing a community assessment team, collecting community data, analyze the community health data book, combine your county's health statistics with your community data, report to the community, selecting health priorities, creating a community assessment document, and creating the community health action plan. It includes more technical details such as the statistical problems associated with small sample size and the use of age-adjusted death rates. It also includes an evaluation component.

- Massachusetts Department of Health's Office of Healthy Communities coordinates 27 Community Health Networks encompassing the entire state. Among their activities, each network carries out CHA processes using indicators supplied by the Department. The Office of Healthy Communities states that "Examples of tools to assist this process include APEX-PH (Assessment Protocol for Excellence in Public Health), Planned Approach to Community Health (PATCH), Together We Can, and Healthy Communities."[40]

- The Illinois Project for the Local Assessment of Needs (IPLAN) is an Illinois Department of Public Health-run and mandated "community health assessment and planning process that is conducted every five years by local health jurisdictions in

[39] http://www.healthycarolinians.org/assess.htm
[40] http://www.state.ma.us/dph/ohc/approach.htm

Illinois."[41] IPLAN includes three key components: an organizational capacity assessment; a community health needs assessment; and a community health plan, focusing on a minimum of three priority health problems. Data are available via an online clearinghouse and can be generated at the county or community level. These data describe socio-demographics; general health and access to care; maternal and child health; chronic disease; infectious disease; environmental, occupational, and injury control; and the incidence of sentinel events. The IPLAN website allows the user to view IPLAN results for participating jurisdictions, including health priorities identified, stated objectives for improvement, and intervention strategies.

CHA Data and Methods. There are numerous methods used in the course of conducting CHAs, with the number and mix of methods varying substantially by community. All of the CHA descriptions that we reviewed involved some review of existing data sources, such as national, state, or community-level health data. Secondary data can serve several purposes; most frequently, they are used to measure the current health of a community in certain key health domains as well as to serve as baseline or comparison data for the community's health status both during the CHA process and moving forward as interventions are implemented.

National secondary data sources most frequently mentioned included CDC's BRFSS data, Healthy People 2010 baseline data, and Census data. State vital statistics data are also used frequently. Examples of other state-generated data used in CHAs include:

- New York State's County Health Indicator Profiles, which include summary statistics for each county and as such provide data to help guide the CHA process and help counties understand what

[41] http://app.idph.state.il.us/

additional data they need to collect.[42] Key indicators included in these profiles describe sociodemographics, perinatal health, mortality, hospitalizations, and disease morbidity.

- The Missouri Department of Health and Senior Services maintains the Missouri Information for Community Assessment website, which includes a range of data that are potentially useful to communities conducting CHAs as well as a site containing community data profiles for all Missouri counties.[43]

Local health data are also frequently used. For example, the Franklin County, Maine CHA developed indicators based on findings from a survey taken at the county fair. Less often mentioned were previously-generated non-health community-level data sources such as Geographic Information System (GIS) generated data and land use, planning, social services, education, law enforcement, state transportation, recreation, and community involvement data.

A number of CHAs involve the collection of primary data either through interviews, surveys, or focus groups. Examples include:

- The Guilford County (North Carolina) Department of Public Health in 1997 conducted a "telephone survey of nearly 1,000 Guilford County adult residents" with the assistance of the Institute for Health, Science, and Society at the University of North Carolina at Greensboro.[44] The survey was modeled after the BRFSS.

- The New York State Community Health Assessment clearinghouse provides those conducting CHAs with guidance and resources related

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[42] http://www.health.state.ny.us/nysdoh/chac/relatedreports.htm#chp

[43] http://www.health.state.mo.us/GLRequest/CountyProfile.html

[44] http://www.co.guilford.nc.us/government/publichealth/hlthsurv/hlthsurv.html

to collecting primary data.[45] They recommend using surveillance data, focus groups, interviews, and observations.

- Windham County (Vermont) conducted interviews with 205 residents of fourteen towns in southeast and central Windham County during their last CHA.[46] "Community members interviewed were nominated by community associations, services and individuals. Selection of interviewees was based on the demographic characteristics of each town. Gender, age, and minority demographics were mirrored in the group surveyed."

- The Kansas Community Health Needs Assessment uses a key informant survey that asks for demographic information, a ranking of public health and related issues with respect whether they require urgent attention from community leaders, and a ranking of barriers that "prevent health care consumers from accessing the services they need."[47]

- The North Carolina Health Assessment process uses a Community Health Opinion Survey[48] that collects demographic information, health care access and health status information and opinions about community issues with an impact on health. It asks specific questions about the health status of, and barriers faced by, specific segments of the population. It also solicits opinions about the impact of community violence and unhealthy behaviors.

Nearly all of the CHA descriptions that we reviewed included some form of qualitative community input, gained through community discussion

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[45] http://www.health.state.ny.us/nysdoh/chac/process_data.htm#community

[46] http://www.sover.net/~abcwahle/health.html

[47] http://www.kcmo-mapp.com/documents/key%20informant.pdf

[48] http://www.healthycarolinians.org/Doc%20files/CommunityHealthOpinionSurvey.dot

groups[49], community member interviews, town meetings, focus groups, or some other method.

We identified several communities that are taking advantage of Internet technology to conduct online surveys as part of the CHA process. A number of Missouri local public health agencies use an online Community Assessment Survey and also displays survey results in real-time format.[50] The developers note a number of benefits, including time and cost effectiveness, the ability to reach many people, the availability of results that are updated each time the survey is completed, and the ability to get an ongoing picture of community health that allows them to develop new programs as problems arise, not every several years when a CHA happens to be conducted. This online interface does not, however, appear to have a means to ensure that respondents are from the county with which the surveys are associated and of course a major barrier is selection bias associated with participation.

Other public health organizations have developed software that can generate community-related measures drawing on large datasets. The Seattle-King County (Washington) Department of Public Health developed VISTA/PH software, which "facilitates community assessment by 1) assembling various sources of information; 2) making them accessible for analyses by flexible, user-defined parameters; 3) standardizing the method of analysis; and 4) producing output that can be incorporated into spreadsheets, tables, graphics, or geographic information systems." The Washington State Department of Health funded the distribution of VISTA/PH to all of the state's local health departments, many of which use it to produce their required community health assessment reports.

CHA Scope. Most CHAs look beyond a narrow definition of community health status to examine environmental issues, socioeconomic issues, and related issues both as they impact health and as their own problems to

[49] http://ci.lexington.ma.us/OCD/Health/Documents/healthassess.pdf
[50] http://www.jacohd.org/survey/index.php

address. The Kansas Community Health Needs Assessment, for example, asks key informants about the importance of health issues and barriers to healthcare that include healthcare access, health risk behavior, as well as health status such as transportation, childcare, environmental, and other issues not directly related to health.[51] They also ask about populations most in need of enhanced services. The National Cities League, which sponsors "Healthy Communities" projects throughout the United States similarly proposed a model that "extends the usual health assessment based on disease and disability statistics to include many components of the living environment such as the quality of education, the adequacy of housing, the availability of meaningful employment, access to job skills training and retraining, access to public transportation, and many other such factors."[52]

Some CHAs are limited in scope with respect to the population of interest (a specific age group or minority group) or geographic area. Relatively few CHAs focus narrowly on health care, without attention to other community issues that can affect health. One of several exceptions is the Dallas County Community Health "Checkup" (we specifically reviewed the 1997 summary), conducted by a collaboration of 16 county hospitals, which focused more narrowly on health and health services than other CHAs.[53]

CHA Lead and Participating Agencies, We found few descriptions of CHA processes led by a non-health department entity within a community. CHAs are most often led by local health departments or local boards of health and are also organized by state health departments. In Kansas, one evaluation of the statewide CHA process[54] found that local health departments were the lead agency in 48% of counties, hospitals in 21%, "other agencies" in 16%, and no single agency also in 16%.

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[51] Kansas Community Health Needs Assessment
[52] http://www.hcwp.org/resources/commhealth/guide1.asp
[53] http://www3.swmed.edu/parkland/splanCheckup.htm
[54] ***(Curtis 1995)***

All of the CHAs that we reviewed engaged non-health department participants. This is not surprising as the North Carolina Healthy Carolinians initiative notes, "Collaborative assessments reduce data collection and analysis required, reduce potential confusion by multiple studies of single counties, and broaden citizens' involvement in assessment activities."[55] Indeed, the IOM Committee On Using Performance Monitoring To Improve Community Health explained that "Many parties within a community share responsibility for health (e.g., consumers, health care providers, businesses, government agencies, public service groups); those with responsibility for accomplishing specific tasks are accountable to the community for their performance."[56] There were a number of common themes regarding the agencies participating in and contributing to the CHA process, although the actual number and mix varies substantially. These agencies include: local hospitals and other healthcare systems and organizations; universities; local business, social services, and spiritual/religious organizations. The Hawaii CHA process, for example, is organized according a logic model that lists the participating groups as "resources."[57] They list among these resources individual families, schools, businesses, health providers, government, public health agencies, non-profit groups, churches, and the media.

Resources Associated with CHAs. Most public health agencies are working with limited human, financial, and other resources and assessment therefore competes with many other functions and activities for these resources. That said, we found little documentation of the actual financial resources associated with conducting CHAs aside from the common theme that finding resources—both human and financial—was a challenge.

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[55] http://www.healthycarolinians.org/assess.htm
[56] http://www.nap.edu/html/concept/#back
[57] http://www.nhop.org/pdf/progress_reports.pdf

CHA Duration. The CHAs that we reviewed took anywhere from several months to a year.[58] In some cases, CHAs are seen as ongoing processes with no discrete end point. Although they have mandated that communities submit CHA reports by February 2005, the Iowa Community Assessment Initiative notes that, "The assessment process, if conducted properly, does not have an ending date. With the inevitable change all communities experience comes changes to the health needs of that community. Assessment must be an ongoing process to ensure changes in public health needs are identified and addressed in a timely manner. The CHNA & HIP reporting tool will allow communities to regularly update their reports based on changes identified through continued assessment efforts."[59]

CHA Products and Dissemination. The most cited product of the CHA processes that we reviewed were community assessment reports. Content of reports varied, but most described the CHA process and methods, participants, and findings. A number of them also described next steps—action items, programmatic mandates, or other activities to be implemented based on CHA findings. Delaware County, NY's CHA report[60] includes a list of "opportunities for action," including maximization of enrollment in the children's public health plan; expanded use of slide shows and other technologies for public health education; expanded use of fairs, community, and other outreach efforts; conduct of a health survey of Delaware County residents; and development of a preventive dental care program for youth. Other products resulting from CHAs include community health reports, plans for community health enhancement, community health programs, and community health datasets. Several CHAs also result in online city and/or county health profiles or assessment reporting forms developed through the CHA process (e.g.

[58] http://ci.lexington.ma.us/OCD/Health/Documents/healthassess.pdf
[59] http://www.idph.state.ia.us/chnahip/faq.asp
[60] http://www.health.state.ny.us/nysdoh/chac/pdf/delaware.pdf

Alameda County, State of Iowa[61,62]). The Hawaii CHA's logic model lists as outputs: focus group reports, a community health profile, a list of community priorities, community taskforces, annual community forum, and independent evaluations. It lists as outcomes community-selected priorities—which are notably a mix of health and non-health specific issues—including: increased educational attainment and increased employment opportunities.

CHA products report generally on a community's health or focus on specific aspects of it. They target specific populations, specific health conditions or health risks, or overarching issues such as health inequality and disparities. With respect to dissemination of findings, the evaluation of CHAs in Washington State[63] noted that the following were seen as important components of a dissemination strategy: A focus on problem-solving, employment of multi-faceted and multi-layered approaches, recommending "trialable" and observable strategies, providing timely information, using of shared language and vocabulary, using of common knowledge and skill base, demonstrating benefits of findings to practice, and devoting ample time to dissemination.

Several states make community-level CHA information widely available on the Internet. For example, the Massachusetts Community Health Information Profile (MassCHIP) provides free online access to many health and social indicators at the community level.[64] Users can search for specific data from 28 different data sources using geographic, time, and demographic search terms. Different available data span different years and some are available as far back as far as the mid-1980s. According to the MassCHIP website, in 2004 "there were over 4,000 active users working in a variety of settings, including hospitals, HMOs, government agencies, universities, community health

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[61] http://www.co.alameda.ca.us/publichealth/information/1ACHSR03_Front_ExecSum.pdf

[62] http://www.idph.state.ia.us/do/CHNA/chnadata.htm

[63] http://www.doh.wa.gov/EHSPHL/AIA/chapeval.htm

[64] http://masschip.state.ma.us/features.htm

centers, and local boards of health. In the past year, users have accessed information from MassCHIP approximately 70,000 times."[65] Similarly, the Missouri Department of Health hosts the online Missouri Information for Community Assessment site.[66] The site currently contains datasets describing the prevalence of selected health condition and healthcare resources and output can be generated to the county and zip code levels. The site also has a mapping capability. The broader Department of Health website also has a set of community data profile which includes specific information on leading problems for a given community. Both of these state systems have become models for other states and for the nation).[67]

CHA Strengths and Benefits. Few of the reports that we reviewed listed strengths of CHAs processes or content based on any empirical review. However, a number of reports mentioned characteristics that seemed to contribute to the success of a CHA. Specific characteristics mentioned included:

- Use of a simple model
- Use of easy to understand data that laypersons can understand
- Focusing on community assets rather than needs and barriers
- Focusing on specific health issues
- Focusing on a limited geographic area

Specific benefits related to the overall CHA process include the knowledge that money was spent "for the community, in the community, and by the community" as well as new or enhanced community partnerships.

CHA Shortcomings, Challenges, and Barriers. We found few mentions of drawbacks of specific CHA processes—or CHAs in general—beyond the broader evaluations cited at the beginning of this paper, other than the

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[65] http://masschip.state.ma.us/features.htm

[66] http://www.health.state.mo.us/MICA/nojava.html

[67] Stoto MA. 2003. Statistical issues in interactive web-based public health data dissemination systems. Rand WR-106 (http://www.rand.org/publications/WR/WR106/)

resources and time associated with CHAs. Some challenges and barriers related to CHAs raised included:

- "Turf" issues
- Limited resources and expertise for data collection or interpretation
- "Too much" or "too little" data
- Balancing practical and theoretical approaches

One commentary in a hospital industry journal (Sherer 1993)[68] noted that although many hospitals involved in CHAs "will turn to traditional databases and health status indicators for information," such reliance on "hard data" can be misleading. The author notes that "this type of information [alone] doesn't usually account for hospitals located near state lines and the patients that cross them" and recommends the use of the "more intuitive" types of data seen in a number of the CHAs reviewed for this paper, including focus groups, interviews, town meetings, and "simple ongoing conversation." Based on our other findings, it seems that many CHAs have used such data.

SELECTED NEW YORK LOCAL PUBLIC HEALTH AGENCY COMMUNITY HEALTH ASSESSMENT DESCRIPTIONS

As mandated by Public Health Law (Article 6), the New York State Department of Health (NYSDOH) mandates that LPHAs conduct a full CHA every six years as part of their Municipal Public Health Service Plans and provides data elements that LPHA's can include in the report. Broad categories for inclusion are: populations at risk, local health unit capacity, problems and issues in the community, local health priorities, and opportunities for action.[69]

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[68] Sherer J, 1993. Assessment data evaluated. *Hospitals & Health Networks*. 67;14:38.

[69] http://www.health.state.ny.us/nysdoh/chac/pdf/chaguide.pdf

Although the NYSDOH provides technical assistance and puts forth guidance regarding 10 key steps[70] in the CHA process, counties' actual CHA processes and documents can vary substantially (hence, the need to develop a tool for assessing CHA usefulness). To illustrate the range of CHA characteristics, we collected information about several New York counties' CHA processes from individuals serving on the New York State Community Health Assessment web-tool project advisory committee. Their responses are summarized here.

Clinton County. At the time of our review, rural Clinton County, located in the Northeast corner of the state and home to just over 80,000 residents in 2004,[71] last conducted a full CHA in 1998 as required by the NYSDOH. Clinton County updates its CHA biannually. Their CHA is a regional one, also encompassing Essex and Franklin Counties. The three health departments co-led the six-month-plus process, which consisted of focus groups, general/resident surveys, key informant surveys, interviews with selected local leaders. According to a health department representative involved with the CHA, the goal of the Clinton County process is "to identify what really matters to local residents about their health and to highlight their concerns about health issues and problems in their own communities. Another goal was to provide a regional overview on the current status of various health issues identified as statewide priorities by the NYSDOH." The last CHA included comparisons of 18 specific health-related topic areas to the national and state rates/indicators for those topics. It also included a strong community outreach component in which the residents of all three counties were given an opportunity to provide feedback on health issues and concerns in their individual areas.

All members of the local public health system were included in the process. Data sources included hospitals, CDC, the National Institutes of Health, Healthy People 2010, and the US Census. The three counties did not formally evaluate the CHA process, but health department CHA

[70] http://www.health.state.ny.us/nysdoh/chac/10steps.htm
[71] http://quickfacts.census.gov/qfd/states/36/36019.html

developers report that barriers included "a whole lot of data and trying to make sense of it in respect to the 'real needs' of the local public health system." They estimate the marginal cost of the regional CHA process to be approximately $15,000, with three to five staff people covering the data and outreach portions. They note that the most useful aspect of the process is the development of community outreach information and that the outreach portions of the report itself are among its most valuable contents.

The county's 2004 CHA used the MAPP (Mobilizing for Action Through Planning and Partnership) tool[72]. Once again this is being done on the tri-county level and involves a much stronger link between all members of the local public health system. This document will result in a strategic plan for the region and for each individual county. It will also have a strong data assessment section that will meet the NYSDOH requirements.

Cortland County. The small, rural Cortland County, at the entrance to New York's Finger Lake region,[73] last completed a CHA in 2001 and updates the report annually. The CHA focuses on the "overall health and wellness of the community" and the overall purpose is "community collaboration and participation in the process of identifying most significant needs and working toward solving them." The Seven Valleys Health Coalition (Rural Health Network) leads the process, which includes surveys; focus groups; community meetings; presentations of data at variety of local meetings and in the newspaper; asking for feedback at meetings and providing methods of giving feedback via paper, telephone, or the Internet. Coalition representatives noted that the process is ongoing: "Data continues to be gathered/updated from one publication date to the next. Annual updates are more limited than large and are meant to keep us informed of what has happened toward meeting goals." The developers note that a key barrier to the CHA process is the timeliness of data.

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[72] http://naccho.org/topics/infrastructure/MAPP.cfm
[73] http://www.cortland-co.org/

Key coalition members and CHA organizers are the hospital, health department, local state college, United Way and other members of the Seven Valleys Health Coalition including Catholic Charities, physician groups, a federally funded health center, consumers, the Department of Social Services, mental health providers, legislator; government officials, labor leaders, economic development leaders, schools, CTC members, and others. Data sources include the Census, Labor Department, law enforcement agencies, and others. While there is no formal evaluation process, they noted that there are "ongoing discussions in the Community Assessment Team (CAT), which is comprised of the five main CHA organizers." They believe that the most useful aspect of the process is obtaining community buy in to the needs identified. The key users of the resulting report include government leaders, grant writers, program planners, health department, and other governmental agencies. Resources needed include one part time facilitator who is more active during the six months of putting the large report together, many students in various programs at a local college, members of the CAT and their staff.

Dutchess County. Dutchess County, with a projected 2005 population of just over 290,000[74], produced its last CHA report in 1999 and updates it every two years. The report focuses on the overall state of community health and wellbeing. Specific goals of the process are to identify areas of need as well as strengths and resources available, to enable the formulation of priorities for Dutchess County so that resources and programs can be distributed accordingly. The Dutchess County Health Department is the lead agency for the CHA process and in the past has worked with the Dutchess County Health 2000 Coalition, a collaboration of the local hospitals, the Medical Society, the Cancer Society and other health care providers. Additionally, the health department has recently started collaboration with the United Way, Health 2000, and other local agencies (both private and public) to try

[74] http://www.co.dutchess.ny.us/CountyGov/AllFAQs.htm

to create a common countywide needs assessment, which could ultimately contribute to the CHA process.

The previous CHA relied primarily on a Health 2000 survey, as well as on archival data obtained from various sources. Other organizations also conducted surveys, from which additional information on the county was obtained. The CHA process took approximately one year. The primary agencies participating in the CHA process were the members of the Dutchess County Health 2000 coalition, which included AARP, Central Hudson Gas and Electric Corporation, Dutchess County Executive, Dutchess County Department of Health, Dutchess County Medical Society, Dutchess County Sheriff's Department, Eastern Dutchess County Rural Health Network, Harlem Valley Partnership, IBM, Marist College, McCann Foundation, MVP, Neighborhood Based Alliance, Northern Dutchess Hospital, Poughkeepsie City School District, Saint Francis Hospital, Sharon Hospital, United Way of Dutchess County, Vassar Brothers Hospital, and Wellcare Management Group.

Data sources for the 1999 CHA included the 1995 Kids Count Data Book, the 1990 Census, Dutchess County Planning Department, New York State Department of Labor, New York State Department of Education, United Way of Dutchess County, Dutchess County Board of Cooperative Educational Services (BOCES), New York State Division of Criminal Justice Services, New York State Office of Children and Families, Dutchess County Office of Probation and Community Corrections, BRFSS, New York State Department of Social Services, New York State Department of Motor Vehicles, New York State Bureau of Nutrition, Dutchess Health 2000, New York State Department of Social Services, Dutchess County Department of Mental Health, Literacy Volunteers of America, Dutchess County Office for the Aging, and the Dutchess County Youth Council.

Key report contents are the demographics of Dutchess County, including descriptions of county age and gender distributions, and racial and ethnic distributions; socioeconomic characteristics, including per capita income, employment, educational attainment, housing

(including lead contamination, and migration and immigration trends); health status indicators, including natality (live births, age of mothers, mothers' marital status, infant birth weight); morbidity, including infectious disease indicators; sexually transmitted diseases (syphilis, gonorrhea, HIV/AIDS) and tuberculosis; emerging issues, including tick-borne illnesses, rabies, hepatitis, and other infections diseases; utilization of primary and preventive health services, including prenatal care, clinical preventive services (e.g., flu shots, mammograms); barriers to care faced by affected subgroups; collaborative planning processes; and local health priorities, including a summary of the process for public health priority identification, description of current strategies, and noteworthy accomplishments.

The CHA is primarily used by the LPHA to identify local health department priorities. Other local agencies use the information for planning and grant writing. Although there is no formal evaluation process, the organizers believe that the previous CHA led to the facilitation of a community health forum, which was attended by over 50 local health and human services providers. This meeting led to the establishment of a strategic planning process from which strategies and objectives to address the needs identified at the community forum were identified. The most substantial barrier to completing the CHA process and report is funding. Surveys, forums, and focus groups require a sufficient budget to implement. Without being able to afford these sources, we must rely primarily on archival data that is often outdated. Although the first CHA was completed by the director of the Health Planning and Education Unit, currently, a team of biostatisticians and epidemiologists are working together to create the document, utilizing the expertise of the Director.[75]

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[75] A copy of Dutchess County's 2005-2010 Community Health Assessment document is available online: http://www.co.dutchess.ny.us/CountyGov/Departments/Health/HDComHealthAssessment05.pdf

FINDINGS OF CHA EVALUATIONS AND REVIEWS

As noted above, there are a very limited number of published evaluations of CHA processes, models, or products. We summarize the findings from examples of those we located. Common themes include the importance of good data and a focus on sub-populations, and the importance of resources to allow CHA results to become actionable plans for health improvement.

CDC's Planned Approach to Community Health (PATCH) Program. Developed in the mid 1980s, PATCH was "designed to strengthen state and local health departments' capacities to plan, implement, and evaluate community- based health promotion activities targeted toward priority health problems."[76] Though much less recent than the other CHAs described in this paper, PATCH sets the context for the early days of CHAs and perhaps a yardstick by which to measure the overall progress of assessment initiatives. PATCH involved not only assessment, but also community development and mobilization and was used by many health departments and other organizations around the United States to address both broad and targeted health issues. The steps in the PATCH process are: Mobilizing the community, collecting and organizing data, choosing health priorities, developing a comprehensive intervention plan, and evaluating PATCH. These are similar to the steps seen in more contemporary CHAs.

Two evaluations of PATCH pointed to the benefits of the assessment process for the participating communities, including enhanced organizing and data use skills, increased awareness and interest in health, networking and ability of groups and organizations to work together, and an increased number of health promotion interventions activities.[77]

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[76] http://wonder.cdc.gov/wonder/prevguid/p0000064/p0000064.asp
[77] http://www.cvhpinstitute.org/links/patch.htm

Though no longer in use, lessons from PATCH described in one review (Kreuter, 1992[78]) show how some challenging aspects of CHAs at that time are similar to those still described today. One drawback noted was the amount of time required to collect and analyze data. Indeed, Kreuter explained that "data collection is often carried out by persons who have little or no experience and only marginal interest in the process; further, resources spent on data collection cannot be used to implement the program. Communities need systems that can routinely and efficiently gather data relevant to their prevention status. Such systems would not only facilitate but also would help to establish standard databases, thus enabling collection of comparable small-area data across divergent populations."

Additionally, PATCH challenged health departments to utilize scarce resources and devote time and money to a process directed at problems that are not definable at the outset: "With a focus on transfer of community intervention technology through states to localities, community PATCH applications do not start with an a priori health problem; they begin with community members trying to understand what their particular health problems are. Economic support is problematic in the absence of a discernable problem up front." Finally, Kreuter notes that the availability of resources for problems identified through the PATCH process likely depended on government priorities; problems identified for which there was little government support may have gone unfunded.

New York State Public Health Agenda Committee, 1998. In 1998, NYS's 58 local health departments CHAs were reviewed by a team of four or five central and regional NYSDOH evaluators using a standardized tool. Local health departments had been provided the suggested guidance and format developed by the Public Health Agenda Committee earlier that year. The criteria for evaluation included: whether and how the

[78] Kreuter MW, 1992. Patch: Its Origin, Basic Concepts, and Links to Contemporary Public Health Policy, *Journal of Health Education*, 23: 135-139.

suggested sections in the format and guidance were addressed, presentation techniques, uses of data, priority-setting methods and profiling of community resources.[79] The evaluators noted the following as among the key strengths of the review CHAs:

- Use of current data
- Use of charts, graphs, and other presentation aids
- Use of sub-county data
- Presenting information that was concise, easy to understand and find
- Summarizing priorities and major recommendations after each section
- Involving and expanding roles of community partners

The Committee noted the following as key weaknesses:

- Use of outdated data
- Presenting charts with no reference or explanation
- Presenting data in narrative form only
- Presenting regional data without drawing relevance to the county
- Not integrating information across the sections
- Not identifying or explaining local priorities
- Not identifying or explaining local health resources
- Not acknowledging or describing relationships with community collaborators

Finally, the Committee noted a number of opportunities for improvement:

- Locating and applying timely and comprehensive data from various sources
- Collecting, analyzing, and presenting sub-county data
- Clearly communicating and integrating local priorities across the CHA

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[79] Byrne C, Crucetti JB, Medvesky MG, Miller MD, Pirani SJ, Irani PR. The Process to Develop a Meaningful Community Health Assessment in New York State, *Journal of Public Health Management and Practice*, 2002, 8: 45-53.

- Identifying community assets and resources
- Linking priorities to an action plan

Washington State Assessment in Action Initiative, 2002. An evaluation of local health department CHAs in Washington State[80] involved a participatory, qualitative evaluation of "factors that contribute to success, and develop strategies to help LHJs learn from model approaches. The project was led by Washington State's CDC-funded Assessment in Action Initiative. Success was defined as resulting in policy and programmatic action. This group also developed a logic model for community health assessment, which identified the intended short-term outcome of CHAs as changes in attitudes, awareness, and knowledge/skills regarding the use of assessment data in decisionmaking; the longer-term outcome as changes in programs, policies, and resources; and the overall goal as improved community health status.

The evaluation involved site visits to six local health departments and telephone interviews with others, aimed at gaining understanding about their CHA processes. Interviewees noted that key catalysts for CHAs include: having a champion for the CHA and having additional funds for assessment, staff capacity, state department of health support, technology and data, and community partners. Obstacles noted included: lack of time and money, resistance to change, competing priorities, lack of time and money, lack of understanding about assessment and what it can do, and lack of clear vision from the state health department. Key CHA funding sources noted included: Local Capacity Development Funds, grants, contracts, county general funds, and local funds. Factors leading to CHA sustainability included: participant belief that "assessment is an investment that leads to increased resources or improves their ability to do more with fewer resources and when communities come to view local health departments as vital partners because of their assessment capacity." The evaluation report also lists what participants viewed as key implementation characteristics of CHAs:

[80] http://www.doh.wa.gov/EHSPHL/AIA/chapeval.htm

- Accurately describe the community and its subpopulations
- Use of quantitative and qualitative data
- Compelling presentation of data (GIS maps, fact sheets, etc.)
- Mobilization of action based on assessment data

The evaluation found that small health departments face greater obstacles to completing CHAs and therefore require more support from state health departments. Staffing can be a challenge and "the range of skills that are helpful for assessment personnel to have are too broad to be manifested in a single person." Participants indicated that the following are among the key skills of assessment staff: Experience in assessment, knowledge of epidemiology, community connections, and marketing skills.

Finally, the evaluators state their finding that "There is no one *right* way to conduct community health assessment" and that the main keys to success are:

- Leadership and vision
- Community as a partner
- Dedicating staff and staffing
- Commitment to assessment
- Access to data, technology, and peer learning

Baton Rouge, LA Community Health Assessment. Pearson[81] describes the conduct and results of a 1993 health care organization-led community assessment in Baton Rouge, Louisiana. This assessment engaged a range of community representatives, including: a cancer center (which led the process), representatives from the Parish (county) Medical Society, and researchers from Louisiana State University. Pearson notes the challenges associated with a process that should ideally pull together a

[81] Pearson VM, 1996. Partnering With the Competition: Working Together on a Community Health Needs Assessment, Cancer Management 1:14-25

wide range of community members and organizations: "There is a tradition of service fragmentation and institutional competition to be overcome, not to mention adhering to a process that is sometimes seen as complicated."[82] The assessment team collected feedback from participants around their motivation for collaborating in the process. Reasons included: Acquisition of information that could be used for each organization's own strategic planning; information collection completed with less duplication of effort; and combined costs, which also lowered individual institutions' data collection cost." They also noted that the collaborative effort might help ease perceived competition among providers in the community. This seven month CHA process included a review of existing community data and interviews and focus groups with a total of 300 community representatives. The processes resulted in not only an assessment report, but also a formal entity to drive the implementation of the action steps in the report—Baton Rouge Health Forum.

Community Health Assessment in Kansas. Curtis (2002) reports on an evaluation of CHAs in Kansas that aimed to "Describe community characteristics associated with CHA completion, factors contributing to success, as well as barriers and limitations that prevented Kansas communities from initiating a CHA or completing the process."[83] In Kansas, local health departments in 1995 received a Community Health Assessment Process (CHAP) workbook produced by the Kansas Department of Health Environment, Kansas Association of Local Health Departments, and the Kansas Hospital Association. They also received technical assistance around their assessment efforts. The CHA model comprised six components: coalition building, reviewing community data, collecting community data, understanding community data, developing the community plan, and implementing and evaluating the community plan.

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[82] Pearson VM, 1996. Partnering With the Competition: Working Together on a Community Health Needs Assessment. *Cancer Management* 1:14-25

[83] Curtis D, 2002. Evaluation of Community Health Assessment in Kansas. *Journal of Public Health Management and Practice*. 8;4:20.

The evaluation of the resulting CHAs was carried out through two LPHA surveys. This work built upon community capacity theory, which Curtis notes includes the following dimensions: participation and leadership, people skills, community network, community power, and others. The evaluation aimed to assess the extent to which community capacity had an impact on the initiation and completion of the CHA process. By 1998, 64 Kansas counties (61%) had initiated a CHA and 64% of those had completed the process. These communities reported several positive outcomes: improved communications among community groups, problem understanding, and improved skills in accessing and interpreting data. They also noted a number of catalysts for their success, including: ready-to-use data, guidance from the CHAP creators, coalition strength, and effective media communication. Barriers included time and other resources, challenges obtaining buy-in, and an "exhausting data collection process." Finally, 72% of responding communities (n=25) reported having "initiated an intervention process."

Kansas communities that had not initiated a CHA attributed this to lack of community interest, lack of time, and lack of money, among other barriers. Those that initiated, but did not complete, the process pointed to "less representation of community leaders in their coalitions" as a key barrier, along with lack of financial resources, loss of interest over time, and "getting people to complete their tasks." The author notes that "some of the community limitations identified by the respondents could have easily been addressed

Evaluations of CHAs' Impact on Community Health. We identified no reports detailing the results of evaluations of specific CHA processes or products with respect to their usefulness and contribution to the health of a specific community. Several broader reports did describe the evaluation methods associated with their CHAs; the most frequent methods used were surveys of community participants. One state health department surveyed local health departments that had embarked on CHAs more broadly "to understand implementation challenges and barriers, including

community characteristics, cooperation among agencies, and history of problem solving success.”

CONCLUSIONS

Bases on our review of the literature, plus discussions with experts in New York and elsewhere, we developed the following list of criteria to describe the usefulness of individual CHAs. The criteria fall into three categories, relating to the CHA content, format, and impact.

CHA document content. The CHA document:

1. clearly states the goals and purpose of the CHA.
2. includes the most important aspects of the community's health.
3. allows comparisons with data from other communities or other appropriate benchmarks.
4. allows comparisons over time.
5. presents data in meaningful subgroups of population (e.g. to assess health disparities).
6. provides sufficient focus on positive characteristics, e.g., community assets, as well as negative characteristics, e.g., death rates.
7. sufficiently documents the process and methods used to create the CHA.

CHA Document Format. The CHA document:

8. uses a consistent format to present information on different topics in the report.
9. includes both summary and detailed versions to be useful for a variety of audiences.
10. is well organized; it is easy to find content (e.g., includes table of contents).
11. is easy to understand.
12. clearly indicates the relationships among related health indicators.
13. includes narrative and graphic representation of key findings to meet the needs of varying audiences.

14. uses a similar structure or data elements as other community planning tools that we use.

15a. is available online.

15b. *[if yes to 15a]* document includes appropriate links.

16. can be reproduced easily by photocopy.

17. clearly identifies data sources (e.g., citations to graphs or tables).

Impact of the CHA document. The CHA document:

18. serves as a resource to prioritize and plan services.

19. serves as a resource for writing grant applications.

20. serves as a resource to guide a comprehensive health promotion strategy.

DISCUSSION

Although we initially sought to review literature on the evaluation of community health assessment with respect to their usefulness and describe the findings of these evaluations, we found that there is very limited work in this area. We found no rigorous, systematic reviews of CHAs, nor any comprehensive summaries of CHA strengths, weaknesses, and outcomes. However, we used this opportunity to review reports on a number of CHA processes throughout the US and in New York State and learn about and enumerate common—and not so common—characteristics.

We found substantial variation among CHAs, although there were a number of common characteristics. The variability we saw was not surprising, and like much else in public health, is likely due in part to the varying accountability, structure, and community involvement of LPHAs. Whereas some states have prescribed a particular format or process for CHAs, many more have not.

Few CHAs seem to focus narrowly on health care, without attention to other community issues that can affect health. This seems inevitable with the recent attention to population health and contextual variables that can affect it. Additionally, most CHAs seem to include an improvement aspect—going beyond assessing the problems in a community to develop a plan for addressing them. An evaluation of CHAs across Kansas found that 72% of responding communities that had included an intervention process as a result, but the evaluation did not collect data describing the scope or nature of these processes.[84]

Additional research into CHA implementation and outcomes is needed. In particular, there is little existing data describing the actual impact of CHAs on health outcomes, although we know something about immediate products and resulting programs. Beyond work done by the New York State Public Health Agenda Committee, we could not find any

[84] Curtis D, 2002 Evaluation of Community Health Assessment in Kansas. *Journal of Public Health Management and Practice*. 8;4:20.

critical reviews comparing different CHAs approaches that addressed processes, data used, and outcomes. Such a review would help New York and other states develop criteria for effective and cost-effective future CHAs.[85]

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[85] There are currently available tools for assessing key components of the CHA process which could be drawn upon for this purpose. For example, the Center for the Advancement of Collaborative Strategies in Health at The New York Academy of Medicine developed a Partnership Assessment Tool, a web-based tool that uses "state-of-the-art on-line questionnaire technology to collect partnership members' perspectives about several aspects of the partnership's collaborative process."[85]

APPENDIX: LIST OF ACRONYMS

APEXPH	(National Association of County and City Health Officials') Assessment Protocol for Excellence in Public Health
BRFSS	(Center for Disease Control and Prevention's) Behavioral Risk Factor Surveillance Survey
CDC	Centers for Disease Control and Prevention
CHA	Community Health Assessment
CHIP	(Institute of Medicine's) Community Health Improvement Process
GIS	Geographic Information System
IOM	Institute of Medicine
LPHA	Local Public Health Agency
MAPP	(National Association of County and City Health Officials') Mobilizing for Action through Planning and Partnerships CHA tool
MassCHIP	Massachusetts Community Health Information Profile
NACCHO	National Association of County and City Health Officials
NYSDOH	New York State Department of Health
PATCH	(CDC's) Planned Approach to Community Health Program