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Use of the Community Assessment for Public Health Emergency Response to Conduct Community Health Assessments for Public Health Accreditation

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Abstract

A community health assessment (CHA) is a collaborative process of collecting and analyzing data to learn about the health status of a community. Community health assessments are also a requirement of public health accreditation for state and local health departments and of the Affordable Care Act for nonprofit hospitals. One element of a CHA is primary data collection. This article describes the use of the Community Assessment for Public Health Emergency Response (CASPER) method for primary data collection to meet public health accreditation requirements in 2 case study communities—Nashua, New Hampshire, and Davidson County, North Carolina; CASPER is a flexible and efficient method for the collection of population-based primary data in an urban or rural setting.

Keywords

accreditation; community health assessment; public health

Accreditation of state, tribal, local, and territorial public health agencies has received substantial attention in the last decade. In 2003, the Institute of Medicine's report, *The Future of the Public's Health*, called for establishing a national committee to research the benefits of public health department accreditation.¹ The Centers for Disease Control and Prevention (CDC) pointed to accreditation as a key strategy for strengthening the public

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health infrastructure and proactively sought opportunities to catalyze progress toward state and local agency accreditation.² In 2004, the Robert Wood Johnson Foundation convened a stakeholder meeting to determine whether a voluntary national accreditation program for state and local health departments (LHDs) should be explored and proposed a model program for accreditation.³ A nonprofit entity the Public Health Accreditation Board (PHAB) was created, and in February 2007, the initial accreditation process and draft standards and measures were developed and released for stakeholder comment and review. Six years later, in February 2013, 11 public health departments were accredited for 5 years. In order for a health department to apply for accreditation, 3 prerequisites must be met: completion of a community health assessment (CHA) followed by a community health improvement plan (CHIP) and finally a strategic plan. This report from New Hampshire and North Carolina highlights the usefulness of the Community Assessment for Public Health Emergency Response (CASPER) toolkit⁴ for routine CHAs to assist public health departments in achieving national accreditation by the PHAB or a state accreditation body.

Conducting a CHA is a collaborative process of collecting and analyzing data to learn about the health status of a community. For the PHAB process for accreditation, there are standards, or required levels of achievement; measures, or indicators to assess if the standard was met; and required documentation that needs to be provided to assure the CHA meets the requirements for accreditation.⁵ Conducting a CHA is highlighted in Domain 1: Conduct and disseminate assessments focused on population health status and public health issues facing the community. This domain focuses on maintaining, collecting, analyzing, and disseminating data to monitor the health status of a community. Conducting a CASPER may fulfill certain measures within standards 1.1 and 1.2 for accreditation. The standards, measures, and required documentation for completing a CHA and collecting valid data on the health status of the population are detailed in Table 1.

The CASPER tool provides a methodology that is standardized—yet flexible, rapid—and requires few resources to collect primary data.⁴ It is a door-to-door survey based on a commonly used 2-stage cluster sampling methodology. First developed in the 1960s as a tool for LHDs to conduct assessments of immunization coverage, the “30×7” sample methodology was later adapted by the World Health Organization’s Expanded Program on Immunization to assess immunization coverage in developing countries^{6–9} and later modified by CDC for use during emergencies.⁹ During the first stage, 30 clusters, which can be designated by census blocks or block groups, are selected with “probability proportionate to population size.” In other words, a census block or block group with more households is more likely to be included than one with fewer households. At the second stage, 7 houses are randomly selected from within each of the 30 clusters to conduct interviews. Using this 30 × 7 survey methodology reliably produces estimates accurate to within 10% of the true level in the population with 95% confidence.⁸ The CASPER toolkit has resources for conducting surveys on any topic for which rapid assessment is indicated, including a question bank, a template for the final report, example questionnaire, and evaluation forms.

The following paper presents 2 case studies of jurisdictions that have used CASPER methods to meet accreditation requirements.

Case Studies

Nashua, New Hampshire

Introduction—As of 2013, the City of Nashua, New Hampshire Division of Public Health and Community Services (NH DPHCS) has completed the 3 prerequisites for applying to the PHAB for accreditation and plans to apply in the near future. According to the 2010 US Census, the City of Nashua is the second largest city in New Hampshire with a population of 86 494 and 35 044 households. Located in Hillsborough County, the city is 31 square miles and borders Massachusetts.

Working toward accreditation, the Division underwent a strategic planning process to identify departmental strengths and areas for improvement using the National Association of County and City Health Officials's Operational Definition Capacity Assessment, which is based on the 10 Essential Public Health Services. As part of this process, the need for a comprehensive CHA was discussed and the Division began a partnership with community organizations to complete a CHA in September 2010. Twenty-seven organizations, including 2 local acute care hospitals, medical partners, social service agencies, schools and academia, were included on the CHA Advisory Board and provided resources and expertise for the assessment. The assessment included primary data from CASPER and 2 focus groups, 1 with medical providers and 1 with key leaders. Secondary data were obtained from hospital discharge data and state and national databases such as the Behavioral Risk Factor Surveillance System and the Youth Risk Behavioral Surveillance System.

Methods—The survey was conducted according to the CDC CASPER Toolkit V1.0.¹⁰ To identify the total number of households to be included in the survey, the CASPER 2-stage sampling process was used. First, 30 clusters were selected with probability proportional to size using census block groups in the city of Nashua and then 7 households within each census block group were randomly selected. Maps of the selected block groups were printed using Environmental Systems Research Institute's (ESRI) ArcGIS 9.2 (Redlands, California) and a random walking path was drawn to guide teams in the field (Figure 1). Interviews were conducted at every third housing unit until 7 household interviews were completed in each cluster. Teams of volunteers interviewed residents using a 34-question survey that targeted the health of the community, personal health, emergency preparedness, and demographic information. A majority of the questions for the survey were taken from the CDC's Behavioral Risk Factor Surveillance System. The survey was translated into Spanish and Portuguese, and translators were sent to the census block groups with the highest percentage of Spanish and Portuguese-speaking residents. Interview teams obtained verbal consent from all participating residents and teams did not collect identifying information. Survey completion times averaged from 15 to 30 minutes.

The survey was conducted over the course of 4 Saturdays in October and November 2010 as an operations-based Homeland Security Exercise and Evaluation Program-compliant exercise. The start and end times of the survey were kept consistent and the population for the survey consisted of consenting City of Nashua residents who were of 18 years or older. Before the survey, volunteers were provided a 6-hour training to review personal safety while working in the field, the protocol for conducting the survey, and the survey instrument.

The teams of volunteers were assigned a team leader and the multiagency coordinating entity, or the public health emergency operations center, was stationed at the LHD to manage the operations, communications, and logistics during administration of the survey. Data from the survey were collected and analyzed using Epi Info. Frequencies for each response (weighted by the inverse of each household's probability of selection) were calculated with 95% confidence intervals (CIs) as described in the CASPER Toolkit.⁴

Results—A total of 207 (98.6%) of the possible 210 health surveys were completed. The teams approached 833 households, and contact with a resident was made at 426 households. Interview teams encountered a language barrier that could not be overcome at 6 (1.4%) of the 426 households and 213 (26%) refused to be interviewed. Forty-four percent (95% CI: 38.3–50.1) of the respondents were male, 7% (95% CI: 2.7–10.7) were Hispanic, and 81.2% (95% CI: 74.3–88.0) were Caucasian. The mean age of respondents was 48 years and ranged from 19 to 89 years. The most common household income was \$100 000 or more (24%, 95% CI: 16.3–31.7) and the majority of respondents had a high-school degree or higher. Overall, the respondents were a good representation of the community and were comparable to the 2005–2009 American Community Survey by income, gender, age, education, and race.

The first 2 questions of the survey asked residents about the health of the Nashua community. When respondents were asked how they would rate the health of the Nashua community, 6.7% (95% CI: 2.5–10.9) said very healthy, 42.4% (95% CI: 35.3–49.3) said healthy, 40.3% said somewhat healthy (95% CI: 32.8–47.8) and 3.8% (95% CI: 1.4–6.3) said unhealthy. If residents could fix one health issue, 19.7% (95% CI: 12.5–26.8) would fix some aspect of health care (eg, access to health care, insurance, and affordability); 17.3% reported inadequate physical exercise, nutrition, and weight management (95% CI: 11.6–22.9); and 15.9% reported an environmental health issue (95% CI: 9.7–22.0) (eg, sanitation, air quality, sidewalks).

The second section of the survey focused on the health of residents and access to health care and dental care. A routine check-up is a general physical examination, not an examination for a specific injury or illness and 75.5% (95% CI: 68.4–82.6) reported having seen a doctor for a routine check-up within the past year and 2.3% (95% CI: 0–5.3) had never been to a doctor for a routine check-up. In addition, 88.4% (95% CI: 82.9–93.9) had 1 person they think of as their personal doctor and 18.3% (95% CI: 13.2–23.3) had visited the emergency department once for their own health. When looking at access to health care, 94.7% (95% CI: 91.1–98.3) did not have trouble accessing medical care or surgery in the past 12 months. Of those that did experience trouble, insurance, and not being able to afford the cost of health care were the most common reasons. For dental care, 68.8% (95% CI: 61.3–76.2) had visited a dentist or dental hygienist for a cleaning within the past year and 1.4% (95% CI: 0–3.0) had never visited a dentist for a cleaning. Most did not have trouble getting dental care, but of those experiencing problems, most cited insurance, not being able to afford dental care and dental practices not accepting their insurance as the common reasons.

The third section of the health survey was dedicated to emergency preparedness and included questions relating to evacuation, safety in the household, and communications.

Results showed that 52.4% (95% CI: 44.8–60.1) of households use the television, 20.2% (95% CI: 14.9–25.5) use the radio, and 18.1% (95% CI: 11.4–24.8) access the Internet for gathering information from authorities during an incident. Eighty-seven percent (95% CI: 81.4–92.5) of the households have working Internet. If a mandatory evacuation from authorities was issued, 94.2% (95% CI: 90.8–97.5) of households indicated they would evacuate and 63.4% (95% CI: 56.8–70.0) would go to a relative or friend's house. The remaining households indicated they would go to a hotel or an emergency shelter. The main reasons households might not evacuate when asked to do so were concerns over traffic jams and leaving property or pets behind. Furthermore, when evaluating preparedness in the household before an event, 98.5% (95% CI: 96.9–100.2) of households have smoke detectors, 65.3% (95% CI: 57.0–73.6) have carbon monoxide detectors, and 72.5% (95% CI: 65.7–79.4) have fire extinguishers. Only 49.0% (95% CI: 39.5–58.6) of households have an alternate source of heat, but 93.2% (95% CI: 88.8–97.6) have air conditioning (Table 2).

The data from the survey were integrated into the 2011 CHA, which was posted on the city Web site and disseminated to at least 50 organizations via hard copy and e-mail, including the city library. An after-action report was written which highlights the strengths and areas for improvement, and an improvement plan was developed to make changes prior to the next CASPER. The City of Nashua, Office of Emergency Management and the Public Health Emergency Preparedness program at the DPHCS was able to use the emergency preparedness data for planning and decision making, specifically in planning for emergency shelters and communicating public health messages during a disaster. Thus, the preparedness data collected through this CASPER pertained directly to Standard 5.4 “Maintain an All Hazards Emergency Operations Plan” and to plans to effectively implement Standard 2.4.3A “Provide timely communication to the general public during public health emergencies.” Health care and social service organizations have utilized the CHA for grant applications, to enhance existing programs and to develop additional programs on the basis of the need in the community. Furthermore, the CHA informed the CHIP by aiding decision making through identification of the top health concerns in the community as well as available resources to address these health concerns.

Davidson County, North Carolina

Introduction—As of June 2013, 79 of the North Carolina's 85 LHDs have been accredited by the North Carolina LHD Accreditation Board.¹¹ The Accreditation Board is made up of 17 County Commissioners, members of local boards of health, local health directors, North Carolina Division of Public Health staff, and at-large members. The program is administered by an accreditation administrator at the North Carolina Institute for Public Health, the service and outreach arm of the University of North Carolina Gillings School of Public Health.

Several LHDs in North Carolina have used the CASPER method to collect primary data for their Community Health Opinion Survey (CHOS), one of the required elements for accreditation. Davidson County, North Carolina, is an urban adjacent county in central North Carolina with a population of approximately 162 000 individuals and 64 000 households in an area of approximately 553 square miles. Davidson County includes 17 townships and is

located near the North Carolina Triad Region (High Point, Greensboro, and Winston-Salem). Employment has been primarily manufacturing.

During the Davidson County Health Department's (DCHD) accreditation process, DCHD worked with the Lexington and Thomasville Medical Centers and other local agencies and organizations as part of the Davidson County CHA Planning Team to complete the CHOS. Local partners also included service organizations, governmental agencies, churches, and social services providers. Each organization provided assistance, information sharing, and feedback throughout the process and the survey was created with input from community stakeholders. Secondary data were also collected from sources such as the State Center for Health Statistics, 2010 US Census Data, emergency department data from 2 local hospitals, and DCHD.

Methods—Administration of the CHOS was facilitated with the assistance of the University of North Carolina Center for Public Health Preparedness, using a 2-stage cluster sampling methodology outlined in the CDC's CASPER Toolkit.^{4,10} Thirty census blocks in Davidson County were selected with a probability proportionate to population size and within each selected block, 7 households were randomly selected using a survey site selection toolkit developed by the North Carolina Division of Public Health in ESRI ArcMap 9.2 (Redlands, California). Using global positioning system–equipped Trimble Recon field data collectors, interview teams were routed to each location with a map generated using ESRI ArcPad 6.0.3 Street Map USA. The 30×7 sampling method allows for the collected data to be generalizable to the target population, Davidson County, based on population-based sampling weights from each census block.

Thirty-five volunteers from partner agencies were trained on the CHOS and interviewed residents using a 51-question survey that included questions on community issues, health behaviors and personal health, access to health care, emergency preparedness, and personal and household demographics. Questions on community issues asked residents about which concerns were most important to them and which services needed the most improvement. Sections on health behaviors and personal health collected information on health information needs, as well as general health status, mental health status, diet, physical activity, exposure to second-hand smoke, and influenza vaccination status. For emergency preparedness, residents were asked whether their home had smoke detectors and carbon monoxide monitors, whether they had an emergency supply kit and an evacuation plan, and how they accessed information during an emergency. A unique survey was developed for the CASPER survey. Most questions were based on those in the North Carolina Healthy Carolinians CHA tool.¹² Interview teams obtained oral consent from one resident of the selected household and data were electronically recorded on the handheld data collection devices at the time of interview (Figure 2).

Data were analyzed in SAS 9.2 (Cary, North Carolina), with weighted frequencies and their 95% CI for each question in the community health opinion survey. Survey weights were calculated using methods described in the CASPER toolkit, which incorporates the total number of households in the sampling frame, the number of households in the census block, and the number of interviews collected in each census block. These weights were

used to calculate the standard error for each frequency, from which 95% CIs were derived. Qualitative data were summarized into categorical variables where appropriate.

Results—A total of 209 (99.5%) of the possible 210 CHOS were completed over 3 days in March, 2012. The teams approached 658 households and made contact with a resident at 463 households. Eighty-four individuals (18%) refused to be interviewed, and 4 (0.9%) encountered a language barrier preventing interview.

The mean age of survey respondents was 56 years and ranged from 19 to 90 years. The majority of survey respondents were female (57.9%; 95% CI: 51.1–64.6), and most reported white race (87.1%; 95% CI: 82.691.7). High school was the most commonly reported highest level of education completed (32.5%; 95% CI: 26.1–38.9). Of the participating respondents, the most commonly reported household income was \$25 000 to \$34 999 (15.8%, 95% CI: 10.8–20.8]. Demographic proportions were very similar to those reported in the 2010 US Census and the 2007–2011 American Community Survey.

When asked to pick the 5 most important health problems in Davidson County, survey respondents identified cancer (59.4%, 95% CI: 52.7–66.2), diabetes (56.8%; 95% CI: 50.1–63.6), heart disease (53.6%; 95% CI: 46.8–60.4), aging problems (48.3%; 95% CI: 41.5–55.2]), and obesity/overweight (42.0%; 95% CI: 35.2–48.7).

When asked whether individuals get the recommended 30 minutes of physical activity 5 days a week, 37.5% (95% CI: 30.8–44.1) reported that they meet or exceed the required amount of exercise. More than 40% reported eating at least the recommended 5 servings of fruits and vegetables a day (41.2%; 95% CI: 34.5–47.9). For males older than 50 years, 78.8% (95% CI: 71.8–85.7) reported having at least 1 colonoscopy, and 69.0% (95% CI: 57.4–80.6) responded that they have an annual prostate examination. In women older than 40 years, 72.8% (95% CI: 63.7–81.9) have had an annual mammogram, with cost and insufficient insurance given as the main reasons for not having one. The majority of women reported having a pap smear at least every other year (63.0%; 95% CI: 54.2–71.7). The majority of survey participants answered “private doctor’s office” when asked where they go most often for health care when sick (80.8%; 95% CI: 75.4–86.2), or for a yearly physical or checkup (76.9%; 95% CI: 71.182.7). Only 8.6% (95% CI: 4.8–12.4) reported having a problem getting the health care they needed over the past 12 months, and only 7.1% (95% CI: 3.6–10.7) reported having a problem filling a medically necessary prescription over the past 12 months.

Survey respondents were asked what emergency situation is of greatest concern, and the overwhelming majority indicated natural disasters as the greatest concern (81.2%), with 60.4% listing tornadoes as their primary concern. Other emergency situations of concern were medical and health-related emergencies (11.6%) and power outages (3.9%). Only 39.7% (95% CI: 33.046.4) reported having an emergency supply kit able to sustain all family members for at least 72 hours.

Data from the CHOS was included in the 2012 CHA report, which as posted on the Web sites of the North Carolina Division of Public Health and the Davidson County Health

Department. Individuals and organizations that participated in the Planning Team or the Steering Committee continued to work together on the next steps of the process, including the CHIP, using the results of the CHA to assist with the prioritization of health concerns and community quality of life issues.

Discussion

Utilizing CASPER, the City of Nashua, NH DPHCS and the Davidson County Health Department successfully gathered primary data to fulfill an essential requirement for the accreditation process. Davidson County was successfully reaccredited by the North Carolina Local Public Health Department Accreditation Board in 2012, while Nashua, NH, has completed the prerequisites for PHAB accreditation and plans to begin the application process in 2014. In addition, CASPER allowed the health departments to gather health and emergency preparedness data, train volunteers, and exercise their ability to operate this protocol, so it can be used in the event of a disaster. The collected health data provides situational awareness on the current health and well-being of residents and the emergency preparedness data can assist emergency management in planning to respond to disasters and enhance existing protocols.

Local health departments have used other methods to collect primary data for CHAs including focus groups, telephone interviews, and convenience sampling at Health Fairs or other events. Using CASPER methods improves generalizability compared to focus groups or convenience samples and is more cost-effective than conducting telephone interviews.

By using the 30×7 survey design, population estimates can be considered accurate within 10% of the true level.⁸ This introduces 2 important implications of the generalizability of CASPER results. First, sampling and sampling weights are based on number of households in a sampling frame. Results, then, represent the number and percent of *households* rather than *individual*. Because most health care concerns (access to care, insurance coverage, preparedness plans, and behaviors) are likely similar for all household members, the household information is useful for public health planning. Second, CASPER is not an ideal method for estimating low-prevalence disease or conditions. Quantifying vulnerable populations will be accomplished more successfully by constructing questions based on grouped conditions (eg, chronic respiratory including asthma, *chronic obstructive pulmonary disease*, emphysema) or broad health care needs (eg, nonambulatory, dependent on medical device, uninsured or underinsured) rather than asking about specific low-prevalence conditions. CASPER data can then be complemented with existing surveillance and registry data to estimate low-prevalence conditions. Health Departments using information collected via CASPER should be vigilant in considering the implications of these methodological restrictions in their data interpretations and planning.

In the City of Nashua, the data from the health survey were included in the 2011 City of Nashua CHA, which provided valuable data and information for the development of the community health improvement plan and improvement process, an additional requirement that may meet accreditation for an LHD. In Davidson County, data from the CHOS were included in the 2012 Davidson County CHA, fulfilling part of the requirements for a

CHA for both hospitals and LHDs as outlined by North Carolina State Law (for LHDs) and the Affordable Care Act (for nonprofit hospitals). An outline of how CASPER meets certain accreditation measures is outlined in Table 3, available as a supplemental document (available at <http://links.lww.com/JPHMP/A53>).

Results of the surveys could have been affected by selection bias, because only individuals that were home or willing to participate were surveyed. Demographically, the CASPER samples were similar to county statistics reported in the US Census, but other health factors might be overrepresented by those who tend to be home during the business day. In addition, the cross-sectional nature of the survey requires that residents accurately recall and report past behavior and future intentions, both of which may be influenced by many unknown factors.

Conclusions

CASPER was successful in assisting the City of Nashua, NH DPHCS to complete a health survey to meet accreditation standards for the PHAB and provided a guide for planning, operations, volunteer training, and coordination. It was also used successfully by the DCHD to meet the requirements for North Carolina LHD accreditation, as well as for the state- and national-level CHA requirements for LHDs and hospitals as part of the Affordable Care Act. Overall, CASPER is a flexible and efficient method for the collection of population-based data in an urban or rural setting. Although developed for use primarily in a postdisaster setting, this article provides additional examples of CASPER as a useful tool for nondisaster assessments.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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REFERENCES

1. Institute of Medicine. The Future of the Public's Health in the 21st Century. Washington, DC: National Academies Press; 2003.
2. Centers for Disease Control and Prevention. Futures initiative. <http://www.cdc.gov/futures>. Accessed December 27, 2012.
3. Robert Wood Johnson Foundation. Summary of survey questions: report of a December 2004 stakeholders meeting. <http://www.rwjf.org/newsroom>. Accessed January 13, 2013.
4. Centers for Disease Control and Prevention. Community Assessment for Public Health Emergency Response (CASPER) Toolkit. 2nd ed. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2012. http://emergency.cdc.gov/disasters/surveillance/pdf/casper_toolkit_508%20compliant.pdf. Accessed May 2, 2013.
5. Public Health Accreditation Board. Standards and measures: version 1.0. <http://www.phaboard.org/wp-content/uploads/PHAB-Standards-and-Measures-Version-1.0.pdf>. Accessed January 13, 2013.

6. Serfling RE, Sherman IL. Attribute Sampling Methods. Washington, DC: US Public Health Service; 1965.
7. Henderson RH, Sundaresan T. Cluster sampling to assess immunization coverage: a review of experience with a simplified sampling methodology. Bull WHO. 1982;60(2):253–260. [PubMed: 6980735]
8. Lemeshow S, Robinson D. Surveys to measure programme coverage and impact: a review of the methodology used by the expanded programme on immunization. World Health Stat Q 1985;38:65–75. [PubMed: 4002731]
9. Malilay J, Flanders WD, Brogan D. A modified clustersampling method for post-disaster rapid assessment of needs. Bull WHO. 1996;74(4):399–405. [PubMed: 8823962]
10. Centers for Disease Control and Prevention. Community Assessment for Public Health Emergency Response (CASPER) Toolkit. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2009. (No longer accessible, replaced by the 2nd Edition in #4).
11. North Carolina Local Health Department Accreditation Board. Flowchart of the accreditation process. http://nciph.sph.unc.edu/accred/accred_process.htm. Accessed January 13, 2013.
12. North Carolina Division of Public Health. Community health assessment. <http://publichealth.nc.gov/lhd/cha/index.htm>. Accessed January 13, 2013.

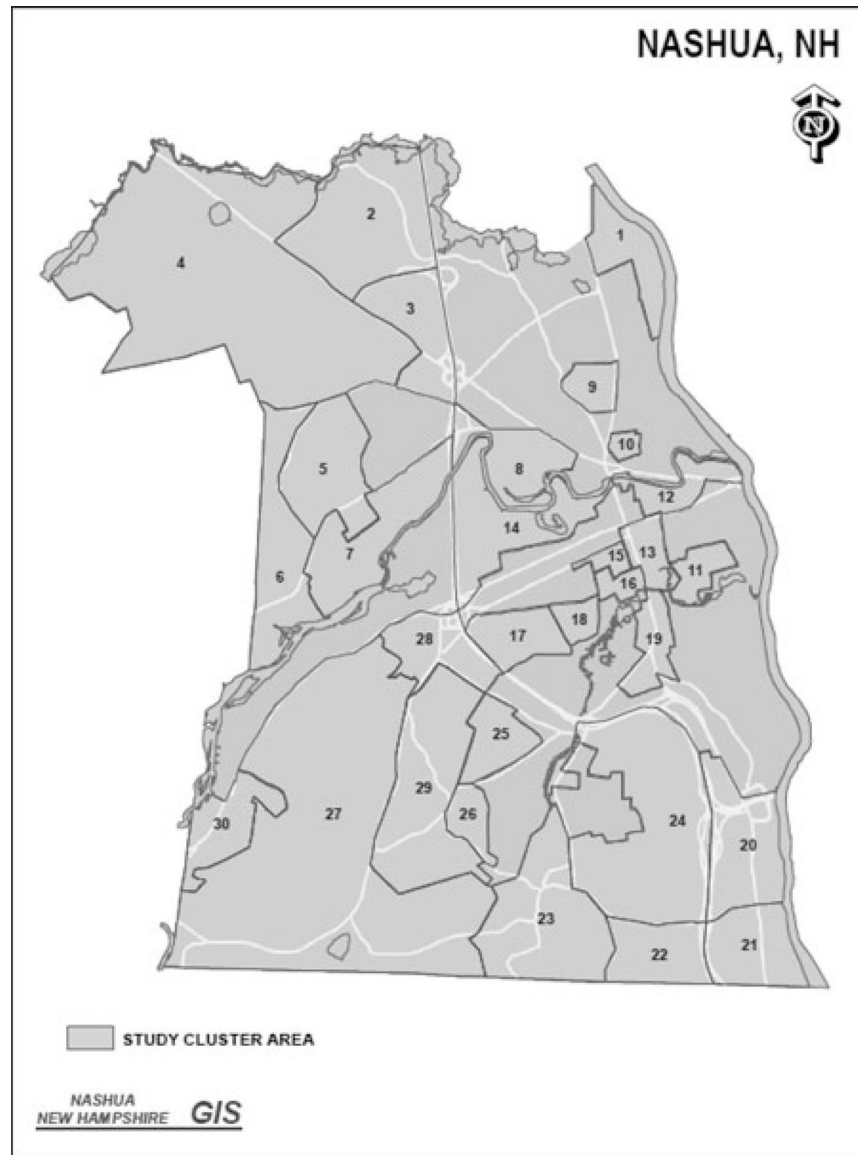


FIGURE 1.
Cluster Locations in the City of Nashua, New Hampshire, for Conducting Interviews

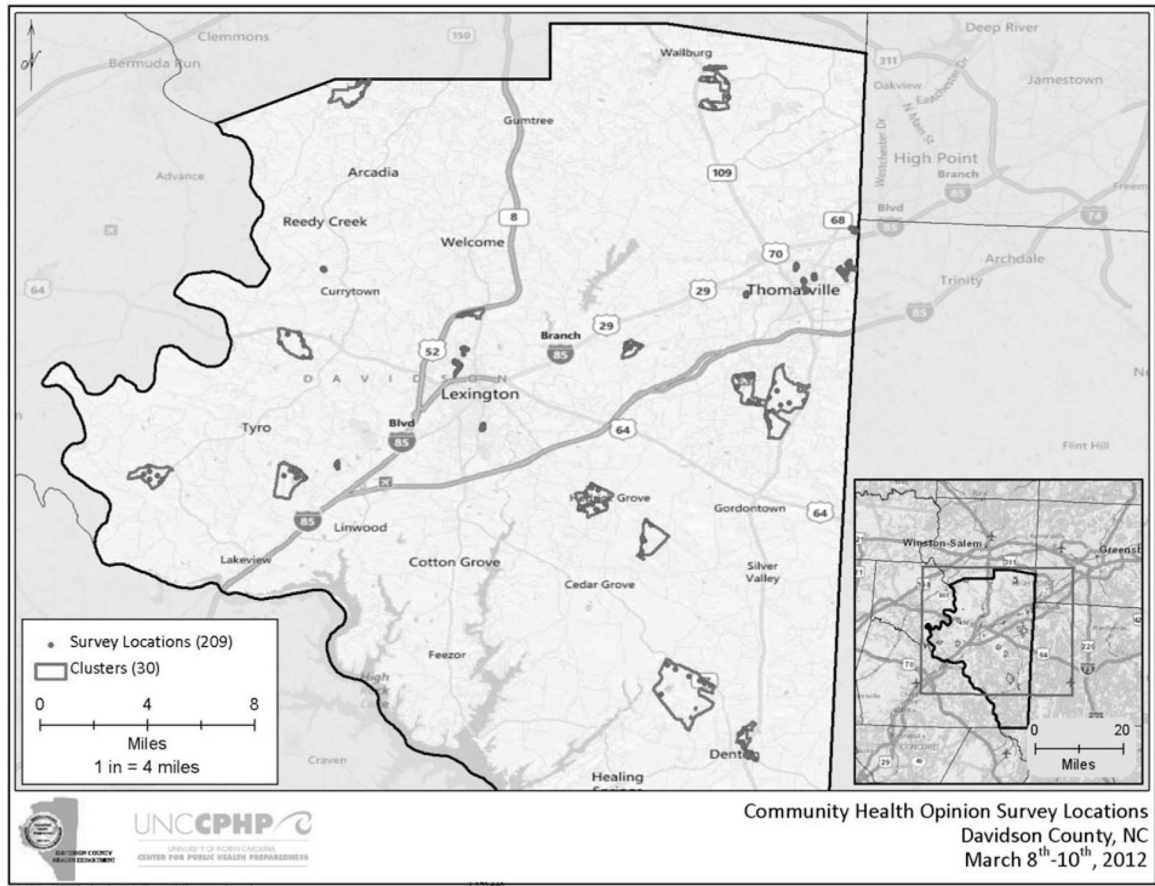


FIGURE 2.
Community Health Assessment Interview Locations in Davidson County

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Public Health Accreditation Board Standards and Measures (Version 1.0) for a Comprehensive Community Health Assessment for Local Public Health Department Accreditation

TABLE 1

Measure	Required Documentation
Domain 1: Conduct and disseminate assessments focused on population health and public health issues facing the community. Standard 1.1: Participate in or conduct a collaborative process resulting in a comprehensive community health assessment.	
Measure 1.1.1L/T: Participate in or conduct a tribal/local partnership for the development of a comprehensive community health assessment of the population served by the health department.	Participation of representatives of various sectors of the tribal or local community. Regular meetings. Description of the process used to identify health issues and assets.
Measure 1.1.2T/L: Complete a tribal/local community health assessment.	A tribal or local community health assessment dated within the last 5 years that includes the following: Documentation that data and information from various sources contributed to the community health assessment and how the data were obtained. A description of the demographics of the population. A general description of health uses and specific descriptions of population groups with particular health issues. A description of contributing causes of community health issues. A description of existing community or tribal assets or resources to address health issues. Documentation that the tribal or local community at large had an opportunity to review and contribute to the assessment.
Standard 1.2: Collect and maintain reliable, comparable, and valid data that provide information on conditions of public health importance and on the health status of the population.	
Measure 1.2.3 A: Collect additional primary and secondary data on population health status.	Document aggregated primary and secondary data collected and the sources of each. Documentation of standardized data collection instruments.
Measure 1.2.4 L: Provide reports of primary and secondary data to the state health department and tribal health departments in the state.	Reports of data to the state health department and to a tribal health department (if one or more is located in the state).
Measure 1.2.4 T: Provide reports of primary and secondary data to the state health department and local health departments in the state.	Reports of data to the state and local health department.

TABLE 2

Emergency Preparedness Questions and Answers With the Estimated Number of Housing Units, Nashua, New Hampshire

Questions From CASPER Survey on Emergency Preparedness	Estimated Number of Housing Units (Weighted Frequencies)	Weighted Percentage (Unweighted n)	95% CIs
If public authorities announced a mandatory evacuation from your community due to a large-scale disaster or emergency, would you evacuate?			
Yes	32 410	94.2% (195)	90.8, 97.5
No	492	1.4% (3)	0, 3.0
Don't know	1476	4.3% (9)	1.1, 7.5
If you had to evacuate from your home, where would you go?			
Relative/Friends house	21 608	63.4% (131)	56.8, 70.0
Hotel	4264	12.5% (26)	8.3, 16.6
Emergency shelter	3772	11.0% (23)	7.4, 14.6
Other	1328	10.1% (27)	5.1, 15.0
What would be your main method or way of getting information from authorities in a large-scale disaster or emergency?			
Television	17 876	52.4% (109)	44.8, 60.1
Radio	6888	20.2% (42)	14.9, 25.5
Internet	6192	18.1% (37)	11.4, 24.8
Print media	820	2.4% (5)	0.3, 4.4
Neighbors	492	1.4% (3)	0, 3.0
Other	1804	5.2% (11)	1.4, 9.1