CHAPTER 5

Designing and Doing the Assessment Research

In this chapter, we will move from general assessment planning to more concrete issues related to designing and doing the research. As in Chapter 4, while these steps are discussed sequentially, the activities will tend to overlap in time. You may need to revisit some key planning questions as you go through the detailed design of your research.

This chapter is organized into the following sections:

1. Mapping Out Your Research Questions
2. Translating Questions Into Indicators
3. Using Primary and Secondary Sources of Data
4. A Brief Overview of Research Methods
5. Some Considerations in Ensuring Quality Research
6. Community Participation in Research
7. Assessing Food Access in Your Community: An Illustration

Additional information on many of these areas, particularly data sources and research methods, is included in the Appendices.

1. Mapping Out Your Research Questions

The research planning process described in Chapter 4 is useful for developing a prioritized list of questions your group wishes to answer through your Community Food Assessment. The answers to these questions will help you implement the change actions your group envisioned early in the process to achieve your goals. These research questions need to be fairly specific and compelling. They also need to be accompanied by a discussion about timelines and the skills, capacities, and resources (both cash and in-kind) your group is able to garner. See next page for an illustration of how to develop research questions that are integrated with your assessment purpose and goals.

“What,” “where,” “how,” and “why” questions

The key questions raised by your group will attempt to accomplish various objectives related to examining your community’s food system. They may seek to answer questions related to the “what,” “where,” “how,” and “why” of the issues you address. The following list provides an overview of some of the categories of information your assessment may include in response to these questions.

- A basic description of your community and its food system, including a summary of any existing assessment research. This could include:
  - Population and household demographics and socio-economic characteristics (number of people and households, income, race and ethnicity, age structure, etc.)
  - Major food system activities, including types, amounts, and value of foods produced, processed, and sold in the community
  - Number of people involved in food-related economic activities, including agriculture and fisheries, manufacturing, and distribution
  - Number and characteristics of households that depend on government programs such as food stamps, free and reduced school lunches
  - Rates of food insecurity in your community as defined in the US Census of Population and Households’
Arriving at Assessment Questions

**CFA purposes**
What changes do you wish to make in your community's food system?
For example,
• Develop healthful eating practices among community youth

**CFA goals or outcomes**
What actions do you wish to put in place to achieve your purposes?
For example,
1. Provide healthy food choices at sites where youth gather
2. Reduce the availability of less nutritious foods
3. Develop programs in community schools, day-care centers, and meal sites to educate youth and administrators about nutrition
4. Create youth-to-youth nutrition training programs
5. Educate parents about the benefits of nutrition

**CFA questions**
What information do you need to help you achieve your goals?
For example (for #1 above),
1. How many schools, day-care facilities, and meal sites are there in your community?
2. What current practices exist relative to youth food consumption in these sites? What are their implications for nutritional health?
3. What are the barriers to providing healthier food choices at these sites?
4. What ideas do the youth and adults at these sites (and outside) have for breaking these (and other) barriers?
5. What short term and long term actions might be taken based on answers to above questions?
6. Who needs to do what to implement these actions?

**Data sources and methods**
Where will you get the information you need and by what method?
For example, (for #1 in the above box),

| School district | • Compile names and addresses of elementary, middle, and high schools, including contact information for administrators of cafeterias, free and reduced meal programs, and food dispensing machines |
| Local government child care | • Compile names and addresses of day-care agencies, including contact information |
| Local health and human services agency | • Compile names and addresses of summer food service programs for youth |

Specifying these questions may lead you to revise your CFA purposes or goal somewhat to ensure that it accurately captures your group's intentions.

Problems obtaining data might lead you to revise your question or identify alternative (perhaps less than ideal) sources or methods.
A discussion of “how” different activities in the community’s food system take place; that is, looking closely at various processes related to food production, distribution, and consumption, and their links to people, policy, and programs. Research addressing questions in this area could cover:

- How low-income households cope with food insecurity
- How farmers try to develop local markets or increase the returns from their products
- How food is transported to various types of outlets from production and processing sites
- How supermarkets make decisions about where to locate
- How farmland is lost to development
- How households make decisions about where to shop for food and what to buy

An analysis of “why” things are the way they are in your community’s food system; that is, understanding the deeper processes in society that are affecting your community’s food issues. This is often complicated because many of these processes are hidden and intertwined with each other. Before studying these types of “why” questions, it is important to gather basic background information on the issue. Examples of “why” questions might include:

- Why many households rely on government and private food assistance programs
- Why many young people eat fewer than five servings of fruits and vegetables daily
- Why a large proportion of food sold in the community comes from outside the region
- Why farmers decide to stop farming or sell off farmland for development
- Why food service jobs pay low wages

Reasons why respondents did not have enough food, Green Bay Wisconsin, 1999 (n=187)

This chart illustrates the explanations for food insecurity given by 187 respondents who had previously reported that they sometimes or often did not have enough food. Respondents were presented with a series of possible reasons and asked to identify those that contributed to their food insecurity. The most common response by far was “not enough money for food.”
A discussion of what community members want their food system to look like in the future. Different communities will have different visions, but examples might include:

- Everyone has adequate and affordable choices of nutritious and culturally appropriate food at all times
- Farmers, farm workers, and other food workers are able to make a decent livelihood
- The community is able to make local decisions to influence their food system
- A majority of foods available in community retail outlets are healthful and nutritious
- Food system activities protect the quality of the community’s air, water, and soil

A discussion of possible steps to help move your community’s food system toward the vision articulated by your group, along with an examination of factors that will help or hinder these steps:

- Increasing access to fresh and nutritious choices of food in low-income neighborhoods via neighborhood stores, farmers’ markets, and farm stands
- Identifying retailers who buy from local food producers and processors, and encouraging the public to buy from these retailers
- Developing salad bars and nutrition programs in local schools
- Promoting local policies to conserve area farmland and support farming
- Developing a local food policy council to bring a more systematic focus on community food issues over the long term

Once you have identified key research questions, you will need to discuss and select relevant indicators, identify data sources, decide on methods for data collection and analysis, and discuss the details for disseminating the results and putting change actions into place. Each of these steps will be outlined below, in the rest of Chapter 5 and in Chapter 6.

2. Translating Questions Into Indicators

Indicators are used to express, describe and/or measure the key concepts in your research questions. They are derived from the issues you are examining in your assessment. For example, if you are researching food access in your community, the indicators you use to describe it might include:

- Average distance to the store in miles from a particular neighborhood
- For neighborhoods with low rates of vehicle ownership, time required to get to the store by foot or public bus
- The availability (and cost, yet another indicator) of food items needed to assemble culturally appropriate, wholesome diets

Indicators can describe the existence, types, quality, or the amount of something of interest (for example, the amount of land under cultivation or type of stores selling food). They can provide summary information about conditions in the community (average time to travel to a grocery store from a particular neighborhood). Finally, they can help compare changes over time or across geographical boundaries (rate of farmland lost over the last 10 years; number of grocery stores per 1000 persons in your community’s various zip codes).

Indicators help define a complex issue of interest, in practical, operational, and measurable terms. Appendices 2 and 3 in this Guide contain lists of possible indicators for examining a community’s food system and sources for this information. These lists provide somewhat different information and are fairly comprehensive, but they certainly do not include every possible indicator. They are provided to assist you in selecting appropriate indicators for the topics you wish to study. It is important to start with the questions and issues that are of most interest to your group and then design or select the indicators that best describe them.

Indicators may be quantitative or qualitative. Quantitative measures for indicators are quite common, and often are expressed numerically to describe amounts, rates, or scale of something of interest, such as acres in food
production, or food retail sales as a percent of all retail sales. Qualitative indicators are more descriptive of perceptions or experiences, and tend to be more narrative in nature. They require some creative and careful thought about how to best describe the indicator. Most Community Food Assessments done to date have included both qualitative and quantitative data, and we encourage you to include both in your assessment. See sidebar on qualitative and quantitative data.

For an example of a qualitative method, let’s say a group of youth wish to document the food wastes in local school cafeterias to spark community discussion about food practices in schools. They want to use videography for maximum impact among fellow students. Their method might include tracking food products through the cafeteria and interviewing a sample of students and cafeteria staff. Students and staff may need to be carefully selected from among the entire school population to minimize biases that might result when participants select themselves. The researchers may want to include participants who choose not to eat in the cafeteria at all.

The youth might list the following items of interest for video documentation:

- The process of assembly of food into finished products in the cafeteria
- The disposal of waste, both raw materials and cooked leftovers
- Students’ preferred choices in food and products they would throw away
- The disposal of plate wastes

Quite possibly, students may uncover differences between various schools, and may be able to draw lessons, best practices, and recommendations for action based on this research. Even the process of videotaping may have the positive side-effect of raising the level of awareness among students and staff about food wastes, and generating a dialogue about how to minimize wastes and promote healthful cooking and eating (perhaps even before the video is developed and disseminated!)

**Selecting and designing indicators**

A standard set of indicators of community food security does not currently exist and is perhaps impossible to create, because community food security is determined by a complex array of factors, and because communities’ food systems differ widely. However, USDA has developed a valuable *Community Food Security Assessment Toolkit* that provides templates for six different kinds of assessments related to community food security. (See sidebar on next page.)

In addition to the six components included in the USDA’s Toolkit, we suggest that assessment organizers also consider the following general categories when developing or selecting indicators:

- Health and social impacts of food practices prevalent in the community
- Environmental impacts of food system activities, such as production, processing, distribution, and consumption
- Contributions of food system activities to the local economy, and wage rates in food system jobs
Proportion of foods sold locally that are produced and processed in the state or region

Local policies that link to food system activities

The potential number and type of measures for any indicator could vary substantially. For example, for an indicator as seemingly straightforward as food stamp use, measures could include:

- The total value of food stamps received in the last year; and changes over the past five or 10 years
- The number of food stamp recipients in the last year; and changes over the past five or 10 years
- Actual food stamp enrollment; and its value relative to total estimated eligibility for enrollment
- Characteristics of people using food stamps; especially the relative use of food stamps by traditionally underserved constituencies (immigrants, elders, etc.)
- Characteristics of those receiving food stamps relative to those most in need of them (for example, food stamp use in relation to food security/hunger status of households)
- Changes in food stamp eligibility and in other regulations that affect eligibility over the past two years
- Locations of food stamp office(s) relative to neighborhoods where households in need predominate; and hours of service
- Extent of awareness of food stamp availability among eligible residents
- Barriers to access—regulations, language, office location, and hours of operation
- Projected changes in future food stamp usage
- Current food stamp outreach efforts and links to other social service and anti-hunger programs
- Level of use of food stamps at farmers’ markets and farm stands
- Presence or absence of nutrition education linked to food stamp availability

A combination of measures like these can shape a comprehensive assessment of the food stamp program in a community, but not all the data may be readily available, and they could be costly and time-consuming to collect from scratch. Your decisions on which measures to select could be based partly on the level of priority of having that information, and on the availability and ease of obtaining such data. Given the wide range of possible indicators, it will be crucial to clearly prioritize your overall goals, which will inform the key questions you want to address, which in turn will help you prioritize and limit the indicators your assessment examines. As you choose or develop indicators, it may be useful to keep careful notes on the strengths and weaknesses of your choices in relation to your overall assessment purposes.

Developing a precise measure of conditions can be quite challenging. Sometimes the professional literature provides guidance; for example, the Nutrition Screening Initiative Checklist is a broadly used screening tool for assessing elderly persons at nutritional risk. The USDA provides a scientifically validated, quantitative measure of household food security that is included in the Toolkit described in the previous sidebar.
Criteria for selecting or developing indicators

The following are some questions and criteria that you may want to consider as you select or develop indicators. You may also want to return to these criteria after you have identified indicators to confirm that they accurately reflect the goals and purposes of your group.

1. What does your group want to assess?

   The indicators you select or design are the tools that help you answer your assessment questions. These questions, in turn, will help you achieve your group's goals and purposes. The same questions that were raised for the design of your research in Chapter 4, therefore, are also relevant for the selection or design of indicators. This process has been discussed in the previous chapter and earlier in this chapter.

   Whatever specific questions your group is exploring, your assessment will be well-served to start with a basic social, economic, and demographic analysis of your community. Information in these categories is regularly collected and made available by government agencies. This is fundamental to gaining a better understanding of the overall context of the assessment. (See list in Section 1 of this chapter.)

2. How much data do you need for your purposes?

   Developing a complete assessment of a community's food security and/or its food system is impractical and probably even unattainable. Given limited resources and time frames, the assessment team needs to identify a practical number of indicators and measures for them. How much data you need to collect depends on what would help you answer your questions, how much information already is available, and what resources you have. It also will depend on your overall purposes—persuading people to change their behaviors, advocating for new policies, or designing new programs.

3. Can you rely on sources of data that already are available to answer a significant proportion of your questions?

   Many types of data are available on a regular basis from a variety of private, public, and nonprofit sources. If most of your questions can be answered through data obtained from these (secondary) sources, then identifying and selecting your indicators will be easier, because they will already have been defined by the institutions that collected the data. You may need to review these definitions to make sure that they accurately capture the information you seek. For example, the US Census of Agriculture provides numbers of farms in different kinds of production at the county level, based on a particular definition of “farm.” If this definition and the data provided adequately meet your needs, you could rely on this existing source.

   However, in other cases you may want to develop your own indicators. For example, no database currently exists that captures the following type of food retail operation: “a food store that sells all the ingredients needed to assemble at least five different types of healthy meals in accordance with the food guide pyramid.” In attempting to map a particular type of food store, you may need to combine different indicators and use a variety of methods and data sources.

4. If you answered yes to #3, are the data of sufficient quality, appropriate for your time/place needs, and easily accessible?

   If the available data are complete and reliable, are available for your desired time frame and up-to-date, and are broken down for the geographic boundaries of interest to you, then you may be able to use the existing indicators.

   However, sometimes available data may require expert assistance to process that may not be readily available to your group. Alternatively, some data collected by public agencies may not be easily available for your use because of privacy concerns. In these cases, you may need to develop simpler indicators from scratch. Also, some data are collected once every ten years (such as the Census of Population). If you are close to the end of the ten-year period, but cannot wait until updated official data are available, you may need to use recent estimates rather than outdated census figures.
5. If you need to collect original data, what resources and expertise are you able to gather, and what is the time frame?

If you have to collect a lot of data from scratch, you will have to spend some time and effort developing the indicators for your research. Depending on the amount of time and the level of resources you have, you may need to simplify your questions to a few basic indicators. Information on these indicators may then come from original research such as interviews, surveys, document analysis, or geo-mapping.

3. Using Primary and Secondary Sources of Data

As your group clarifies your assessment questions and resulting indicators, you will need to determine how and where to get the data you need. Some of these issues have been discussed in the previous section. One of the major considerations is whether to use primary and/or secondary data sources.

Primary data are original information collected from scratch. Primary data may be obtained through surveys, personal interviews, document analysis, observation, visual documentation, or other approaches. Some primary data may be easy and inexpensive to collect, especially if members in your group are already involved with the topic; for example a list of community gardens or other food resources in the community. You will need to rely on primary data sources if secondary sources are unavailable or unsuitable for answering your assessment questions.

Primary data can help make your assessment more relevant for your purposes and ensure greater originality and accuracy in dealing with issues of interest. Methods to collect primary data can help you interact directly with sources, seek clarifications and additional information as necessary, and gain a degree of flexibility while doing the research. They may also be educational and/or empowering for those who participate in the research, and may increase buy-in to the assessment process.

However, relying extensively or entirely on primary sources for your assessment may also require more resources and expertise than your group may be able to mobilize on a timely basis. Primary research also requires greater care in the design and administration of questions, and in the analysis and interpretation of results.

Secondary data are information that already have been collected, and usually analyzed and published or made available for public use. Secondary data are especially useful to provide broad descriptors of your community’s social, demographic, political, economic, and food security characteristics. Secondary data may be gathered and compiled by governmental, university, commercial, or nonprofit entities. Some categories of publicly collected information are not available to the public under any circumstances, in order to protect the privacy of individuals, but some that are not openly available may be obtained through the Freedom of Information Act (1996). These days, a variety of census and survey data collected periodically by government agencies are available on the web. See Appendices 2 and 3 for information on basic indicators and their sources.

Existing data can be extracted directly from the original source or indirectly from another source. For example, US Census data can be found directly from Census Bureau websites and from government and privately published data sets. But others will extract some of this data and publish it as well. Your municipal planning agency may be an excellent source of census data for your community. A university research center may take census data and analyze it to provide additional details about your community’s population and trends that influence its characteristics.

Private databases such as Selectphone® Yellow Pages or Dunn and Bradstreet® business data are commercially available, and depending on your budget and needs, can be quite expensive. Selectphone® is available as a CD-ROM with yellow pages for the entire country organized by place, zip code, type of business, and SIC (Standard Industrial Classification—now changed to NAICS, or the North American Industrial Classification System) code.
## Secondary data sources for your assessment

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<th>Types of Data</th>
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<th>Government Agency Example</th>
<th>Private, Commercial Example</th>
<th>Nonprofit Organization Example</th>
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<tr>
<td>Census data (US Bureau of Census compiles and disseminates census data on a range of population, household, economic indicators)</td>
<td>Research project reports on area job loss/gain based on census data</td>
<td>US Department of Housing and Urban Development distributes CDBG (Community Development Block Grant) funding based on population, poverty, and rate of overcrowding in housing</td>
<td>Supermarket chain devises strategy for location of new stores based on census data on population density and income</td>
<td>Social service or community development organization designs transportation assistance program to serve low-income populations</td>
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<tr>
<td>Sample survey, polling data conducted by public or private entities</td>
<td>Researchers conduct cross-sectional (one-time) or longitudinal (over a period of time) surveys on dietary behavior</td>
<td>Bureau of Labor Statistics compiles costs of numerous consumer items to produce the Consumer Price Index</td>
<td>Food manufacturers conduct market studies on product taste, placement, and packaging</td>
<td>Nonprofit conducts evaluation of nutrition education program outcomes of WIC clients</td>
</tr>
<tr>
<td>Membership lists, databases</td>
<td>Extension agents use government or commercial databases to assess minority ownership of local farms</td>
<td>Department of Health and Human Services compiles list of stores accepting food stamps or WIC coupons</td>
<td>Private companies compile for sale, directories of commercial enterprises, including food businesses</td>
<td>Nonprofit referral service compiles list of service providers related to food and nutrition assistance</td>
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<td>Research reports, articles</td>
<td>Ph.D. dissertation compares availability, costs, quality of foods in different types of local stores</td>
<td>Government agency studies economic viability of small farms across the country</td>
<td>Private consultant conducts feasibility study of market garden within city boundaries</td>
<td>Anti-hunger agency documents incidence of hunger and food insecurity in low-income neighborhoods</td>
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<tr>
<td>Spatial information, maps</td>
<td>Extension agent maps trends over last 50 years of farmland loss in a region</td>
<td>Regional council of governments assembles maps in population and economic categories to assist in regional growth management</td>
<td>Food processor conducts geographic assessment of potential locations for a meat-packing plant</td>
<td>Community development agency maps stores most used by community members for food purchase</td>
</tr>
</tbody>
</table>

**Secondary data sources for your assessment**

This table summarizes the typical kinds of information that can be useful for an assessment and gives examples of uses of that information by different institutional actors. It is provided to help stimulate ideas of sources and types of information that might be useful for your assessment, and to help you identify potential sources that your organization might not ordinarily approach.
A comparison of primary and secondary data sources and the implications for your research is available in Appendix 4. Ideally, most assessments will contain some mix of primary and secondary data analyses. Due to the ready availability of much secondary data and the time and effort required to assemble and analyze primary data, assessments typically contain much more information based on secondary sources.

Regardless of the source of your secondary data, here are some questions that you may need to ask to ensure that they meet your needs and enable you to report your results accurately:

- Who collected the data, how, and why? Voluntary filings, in which participation in a database or survey is voluntary, may be incomplete or contain inaccuracies. Lists generated by mandatory filing (e.g., government licensing) tend to be more complete and accurate.
- How are categories defined and organized?
- How often are the data collected, and when were they last updated?
- How complete are the data?
- What assumptions underlie the definition or collection of the data?

4. A Brief Overview of Research Methods

Research methods are tools with which you systematically collect primary data about a range of community food issues. Some will be more or less suitable for your group, and there is no formula for the selection of particular methods. They should be selected based on:

- The nature of the question and the kind of information desired
- Your purposes in gathering the information, and the amount and detail you will need to make your case, persuade others, and facilitate decisions
- The time, expertise, and resources you have at hand

We urge you to select methods with a view to encouraging broad and meaningful community participation in your Community Food Assessment planning and implementation. These issues are discussed in greater detail in Chapter 4 and in the final section of this chapter.

Appendix 5 presents a range of methods your assessment could use to obtain information and briefly discusses their strengths and limitations in a table. These methods are commonly used in Community Food Assessments; many can be designed and implemented with minimal training prior to the implementation of the research. They are:

- Informal interview
- Survey interview
- Semi-structured interview
- Standardized open-ended interview
- Focus group interview
- Key informant interview
- Community meeting/ hearing
- Direct observation
- Participant observation
- Document analysis
- Photo documentation
Photo novella

Community asset/problem mapping

More details on how to implement these methods are available from sources included in the Resource List in Appendix 6. *The USDA Community Food Security Assessment Toolkit* is a good source for detailed information on selected methods appropriate for assessments (see sidebar in section 2).

Data collected through the methods described above will need to be processed, analyzed, and summarized to surface the study's findings and prepare them for dissemination. A discussion of techniques for analyzing different types of data is beyond the scope of this guide. We encourage readers to refer to the resources on this subject included in Appendix 6.

Reporting and disseminating research results also are essential parts of the assessment process, and are discussed in Chapter 6. It is important to consider the audiences and ultimate uses for your assessment information when planning the research.

5. Some Considerations in Ensuring Quality Research

In collecting primary data, your research team will need to consider issues such as relevance (do the questions capture what is relevant or meaningful to your group?), accuracy (do the findings truly reflect real-world conditions?), and generalizability (do the responses apply to a larger population than the group who participated in the study?). Here are some general guidelines for thinking about methods and techniques that are appropriate for your assessment.

1. **There is no one right way to see an issue, pose a question, or evaluate a response.**
   Every method has strengths and weaknesses that affect the quality and usability of the information generated, and it is important to identify these before it is used. Appendix 5 lists some strengths and weaknesses of common data-gathering techniques.

2. **There are many approaches to getting the information you seek.**
   Generally speaking, the more questions you ask about a topic and the greater the variety of sources and techniques you employ to gather the information, the more valid information you will gather and the more confidence you will have in your conclusions.

3. **Be sensitive to establishing trust and communication with community members who provide information.**
   Asking people to provide information about their food habits or food insecurity issues can be delicate. Community members are more likely to provide information candidly if they feel safe and comfortable. Consider how to help people feel at ease in planning how information is requested and who will request it, for example by having surveys administered by people who are similar to the respondents.

4. **Document in detail the methods you used for getting your information.**
   Document the process of developing your questions; the sources that you were able to use; sources you sought but were unavailable to you; people who refused to participate (in the case of surveys or interviews); difficulties you had in interpreting the responses; etc. These details will help you understand your findings in the context of your process; provide you with a way of defending your findings should the need arise; and be a source of feedback if you find that the information you gathered was less than useful for your purposes.
5. Be aware of the limits of your knowledge on a particular topic and state these limits openly and clearly.

Does your information apply to some population groups, but perhaps or definitely not others? Is your information valid for a specific geographical area but not for the entire city or county? Is your information valid for a particular time period? When in doubt, you may want to understate rather than overstate the implications of your information.

6. Be aware of built-in influences or interests that you or your group bring to the research process.

No person is objective, and every research question, even an objective-looking numerical one, has subjective elements. Subjectivity is not inherently bad: for example it can be a reflection of deeply-held values and principles about the problem of hunger. However, it is important to consider and be prepared to discuss openly how your interests might influence or limit the research.

7. Be careful not to be too invested in particular responses or findings.

This is difficult, especially when you have some experience in the community and you care about particular outcomes from the assessment. Keep an open mind and be prepared to be surprised by what you find. Whether or not you are surprised by a result, try to understand and explain it based on the evidence. Check and double-check your methods to make sure that the responses reflect real conditions.

8. Be careful and critical in interpreting and using information collected by others.

Know that claims of no evidence for something does not mean that it doesn’t exist. It just means that no evidence was found by the party making that claim using the methods they used at that time. It is important to look carefully at the evidence when weighing some claims. Ask common sense questions, such as: Who collected the information, and how? Why are they making the claim? What does it mean? What information is absent? Are assumptions stated clearly and are they valid? Is there sufficient evidence to support their statement?

9. Scientific evidence is not enough, by itself, to elicit action.

Data do not vote or organize people; people do. If you need to create a change urgently, you are better off organizing your community to take action or to pressure those who have power to take action. Any information you have to help you make your case and persuade others is better than none, but advocacy may be at least as important for getting the results you need as the quality of your information.

6. Community Participation in Research

Active involvement of community members is important to the success of a Community Food Assessment, as discussed in Chapter 4. Community stakeholders and residents can play important roles in research design, implementation, and dissemination. Community participation makes the research more responsive to local concerns and more reflective of local assets, and builds community skills and capacities.

Community residents can bring important strengths to data gathering and analysis. These include:

- Easier entry into the community when outsiders may be viewed with suspicion
- A familiarity that helps participants feel comfortable and be more forthcoming in sharing information and ideas
- Ability to understand local meanings and context and identify patterns that outsiders might miss
- Capacity to build support for the assessment and to implement change actions in the community

Community participation in research also can contribute to building knowledge, resources and capacity in the community that will have benefits far beyond the scope and duration of the assessment. These may include:
Richer informal networks and improved communications
Increased awareness of assets and needs
A stronger shared vision for creating change
Analytical and research skills related to community issues
Community-based planning skills
Trust and mutual respect

Chapter 4 discussed some general issues related to community participation that are important to consider in the research planning. These include planning ahead for participation at different points in the assessment and raising funds to support it; recruiting collaborators who bring skills in community organizing and outreach and multi-cultural backgrounds; and providing appropriate training to residents and other assessment participants.

Different organizational models exist for involving residents in research. Whatever the model used, it is important to devise means for the community to make recommendations to the planning group, to get feedback, to conduct research tasks, and to disseminate research findings. These can include tabling, community meetings, surveys, and taskforces. Additionally, techniques have been developed to do rapid, participatory data-gathering in a community after some planning and preparation. These include community mapping, rapid Community Food Assessment, open space technology, and future search. These methods are discussed in Appendix 1.

7. Assessing Food Access in Your Community: An Illustration

Below is a list of some key questions related to assessing food access in a community. After each question are notes on issues to consider in defining indicators and identifying potential data sources. This list is merely a starting point and by no means comprehensive.

Question 1: How many food stores are there in the city or in a particular neighborhood, and what types of products do they sell?

One key factor for developing indicators will be the definition of a food store. Is it store that might sell anything edible: gas stations, discount stores, convenience stores, etc? Or a store where people can buy a variety of food ingredients in order to assemble complete meals at home? The definition used would be based on your overall purposes and data availability.

There are numerous classification schemes for food stores. The retail food industry tends to classify stores based on product category, sales, employees, and/or floor area. There is no easy way to relate these characteristics to the types, varieties, and quantities of products sold. For example, an inner-city liquor store may sell many types of food and may have total sales that are comparable to a chain grocery supermarket. However, the store’s sales probably will include a much higher proportion of liquor, and the selection of foods they carry may not be adequate for home meal preparation.

The Census of Retail classifies food stores by code numbers (called North American Industrial Classification System or NAICS codes, previously known as Standard Industrial Classification or SIC codes). This system is useful in that it breaks down grocery stores by type (food stores, convenience stores, etc.), but it provides information only in the aggregate for cities, metropolitan statistical areas (MSAs), or other geographically defined areas—not for individual stores.

Another system of classification is based on food licensing regulations. For example, the Michigan Department of Agriculture classifies stores based on the amount and type of food handling required, to provide the appropriate food handling license. Community residents may categorize their neighborhood’s stores by other factors such as the types of products carried, or whether the store takes WIC or other vouchers or provides credit. No objective database exists that can provide accurate data in all these categories.
Sources for information about food stores include the following:

- A drive- or walk-through of the community if it's small enough (this will not give you information on trends over time)
- Telephone Yellow Pages (different types of stores selling food may be in various categories: convenience store, liquor stores, pharmacies, etc.). Several private companies sell CD-ROMs containing Yellow Pages information for the entire country.
- State and local government licensing offices (sales tax, food handling licenses, etc.)
- Utility companies such as electricity, telephone, and gas providers.
- Commercial databases such as Dunn and Bradstreet® Business Databases
- Government databases such as the Census of Retail

**QUESTION 2: Are there supermarkets within walking distance of low-income neighborhoods? How are larger supermarkets distributed relative to high-poverty census tracts?**

You can identify “high-poverty” areas from census information (conventionally, tracts with 30% or more persons at or below poverty). Maps with census tract boundaries and basic demographic and population indicators are available to download from the US Bureau of Census at http://www.census.gov. Figure 5-1 shows a map of larger grocery stores in the Detroit area relative to high-poverty census tracts.

In addition to poverty statistics, you also could select vehicle ownership rates and shade tracts with low rates (where 20% or more households are without a vehicle). Plot supermarkets on this map (manually, or with computer mapping programs such as Maptitude®, ArcView®, or ArcInfo®). Draw concentric circles of a half-mile...
radius (estimated maximum walking distance with grocery bags) around them. Are there shaded areas that fall outside these circles? These areas represent residents who have low rates of access to local supermarkets.

Another valuable layer of information would be to identify census tracts that are high or moderately high density (households per acre). This would be helpful for understanding supermarket locations and characteristics in your area that typically are attractive to supermarkets. The Census Bureau website provides maps with density information that could be used directly or with some manipulation by computer software. Figure 5-2 illustrates this scenario for the Detroit area.

**QUESTION 3: What percentage of local residents lack cars?**

As more and more full-service supermarkets locate in suburban or ex-urban locations, people without cars are more likely to have problems with food access. The census is the best source for information on vehicle ownership and demographics, with data available by census tract or for the city as a whole.

Here’s one way to calculate rates of vehicle ownership among your area’s households. First, find the total number of occupied housing units in the census tracts of interest to you. Then find the number of occupied housing units with no vehicles available. For each census tract, using a spreadsheet program, you should be able to determine the ratio of occupied housing units with no vehicles available to the total number of occupied housing units. The higher the ratio, the greater the degree of difficulty residents there might have in accessing supermarkets. Figure 5-3 shows a map of vehicle ownership in the Detroit area, directly downloaded from the Census Bureau website.
QUESTION 4: How well do the transit lines serve the food shopping needs of the community, especially low-income residents? Do people have to make a transfer to get to the store?

Look at transportation routes and the extent to which each one passes through or near supermarkets and low-income or transit-dependent neighborhoods. What are the distances between these neighborhoods and stores? How many supermarkets can be traced along the same transit route within a six to 10-mile length? More stores along a transit line likely indicate greater choice and convenience for residents using that line. Also examine the overall transit system. For example, do all transfers take place at one central point? This could mean longer distances to supermarkets that are located further away from city centers, and imply more time spent making transfers.

Mapping stores and transit routes is a convenient way to glean this information if maps and related software are easily available. In practical terms, this information can also be discovered from talking with local residents who use public transit, or with transit operators or dispatchers who are familiar with routes and the community. For example, you could enlarge a map of bus routes and bring it to a community meeting of transit users and/or bus drivers and dispatchers. Transit users could then place thumb-tacks of different colors to mark supermarkets where they currently shop or would like to shop in the future. This could provide the basis for identifying stores that are well-served by transit, as well as stores that need greater attention by transit route planners.
Conclusion

This chapter discussed a variety of issues related to designing and conducting Community Food Assessment research. We covered topics related to developing your research questions and selecting indicators, emphasizing the wide range of possibilities and the need to prioritize based on your assessment goals and other considerations. We also briefly introduced research methods (with details in relevant appendices) and some considerations for ensuring quality research. We emphasized the potential for significant community participation in the research process, and highlighted the benefits of such participation. With the help of a concrete illustration, we also discussed specific questions, data sources, and techniques for gathering information. This chapter underscores the adaptability of the Community Food Assessment approach to a wide range of issue areas and situations.


5 Some versions of mapping software are available free of cost or for an affordable price from different sources. See http://www.esri.com. The US Department of Housing and Urban Development also makes available Maptitude at a low cost to enable communities to do geo-mapping. See http://www.hud.gov or call the housing and community development office in your city, town, or county.
