Study of Safety Net Provider Capacity to Care for Low-Income Uninsured Patients

Final Report

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EXECUTIVE SUMMARY

Mathematica Policy Research, Inc. (MPR), under contract with the Health Resources and Services Administration (HRSA) and the Office of the Assistant Secretary for Planning and Evaluation (OASPE), conducted a study to evaluate the capacity of safety net providers to provide care to uninsured low-income patients. Since 1996, an abundance of anecdotal information has indicated that safety net provider capacity is threatened due to financial instability, partly as a result of changes in public policy. This study provides a fuller understanding of safety net provider capacity in five communities: Columbus, Ohio; Detroit, Michigan; Kansas City, Missouri; Oklahoma City, Oklahoma; and San Antonio, Texas. It also explores the availability and adequacy of information to understand the status of urban safety nets.

FINDINGS IN BRIEF

The study’s major findings are summarized as follows:

- The composition of the safety net and the contributions of different types of safety net providers varied among the study cities. We found that safety net systems could be categorized into two distinct types: in three cities, we found a “concentrated” safety net system organized around a small number of ambulatory safety net providers; the other two cities relied on more dispersed systems of care for the uninsured. More concentrated systems offer a clear pathway for the uninsured to access care, and present a clear focal point for local support. However, concentrated safety nets may also be more financially vulnerable than dispersed systems, which could constrain their capacity.

- Safety net capacity was strained for specialty services (five cities), pharmaceuticals (five cities), dental care (three cities), and behavioral health care (three cities). Primary care capacity was more likely to be sufficient to serve those who presented themselves for care.

- Between 1996 and 1999, safety net capacity expanded in three cities but contracted in two cities. Capacity is heavily influenced by federal, state, and local public policies that affect the financing of safety net providers.

- To monitor the safety net and answer questions about how safety net providers are faring and how policies may influence their capacity, more reliable community-level data are needed.

BACKGROUND

In late 1999 HRSA and OASPE jointly funded a study of Safety Net Provider Capacity to Care for Low-Income Uninsured Patients. The study built on the 1999 Institute of Medicine
The IOM report entitled *America’s Health Care Safety Net: Intact but Endangered.* The report concluded that, owing to the combined impact of several forces, safety nets are fragile and at risk. To avert the possibility of a future national crisis, the IOM recommended monitoring the strength of safety net providers and the policies affecting such providers. In particular, the study noted the importance of recognizing the fact that local safety nets are composed of various types of providers organized in different configurations in different environments. The IOM study also pointed to the lack of national data for monitoring the safety net and the limitations of using information collected solely from selected types of safety net providers, such as, for example, HRSA grantees.

Accordingly, the present study was motivated by two overarching policy questions:

- Is the capacity of the safety net adequate to meet community needs?
- How do federal, state, and local policies and other factors affect the capacity of the safety net?

The present study also responded to the IOM committee’s concern that previous studies of the safety net failed to adopt a community-wide perspective. HRSA and OASPE set out to determine whether it was possible to use a site visit methodology to assess the adequacy of safety net capacity and whether community-level data were available to address the major policy questions identified in the IOM study.

The following research questions formed the framework for the study’s data collection and analysis:

- What is the composition of the safety net, and what is the contribution from each type of safety net provider to ambulatory care for the uninsured?
- What is the need for safety net services by the uninsured?
- How adequate is the capacity of the ambulatory care safety net to meet the demand for care from the uninsured, and what can be learned about unmet needs?
- What changes in safety net capacity have occurred between 1996 and 1999?
- What factors, including public policies, influence the capacity of the safety net?

**STUDY METHODOLOGY**

In contrast to some previous studies of the safety net, this study focused on the following areas of interest:

- The community as the unit of analysis
• The ambulatory care safety net
• The uninsured population and its pattern of utilization

This study attempted to answer the above research questions for the period 1996 to 1999 in five midsize cities: Columbus, Ohio; Detroit, Michigan; Kansas City, Missouri; Oklahoma City, Oklahoma; and San Antonio, Texas. The criteria for site selection were the presence of Medicaid managed care, relatively high rates of poverty, and the presence of federally funded Community Health Centers (CHCs). We also sought to include at least one city with a public hospital.

The study addressed the above research questions by using both qualitative data collected during site visit interviews with key informants and quantitative data collected from secondary data sources. Pre-site visit activities identified institutions locally considered to constitute the safety net either because they served a large number of uninsured patients or because, although small, the uninsured represented a major proportion of their caseload. We interviewed representatives from more than 50 safety net organizations across the five cities. Within some organizations (such as community health centers and hospitals), we interviewed several individuals.

To identify the relative contribution of each safety net provider, we requested information directly from providers and states on the number of ambulatory care visits by uninsured patients. While several providers indicated that they collected such information, and several did provide some, a large number did not provide any data on ambulatory visits. We developed an estimate of visits by uninsured CHC users from HRSA’s Uniform Data System for each of the federally funded CHCs in the study, and we received data on uninsured outpatient visits from the state of Ohio for all hospitals in Columbus. We were able to obtain data on uncompensated care from hospitals in the other four cities, but were unable to translate that information into the number of uninsured visits or patients served. Given that information for all cities but Columbus was incomplete, we were unable to develop complete profiles of the contributions to the safety net of each type of provider across all five cities.

FINDINGS

What is the composition of the safety net, and what is the contribution from each type of safety net provider to ambulatory care for the uninsured?

Safety net systems are generally made up of hospitals (public, not-for-profit, and children’s), federally funded CHCs, other large health centers (three cities), health departments providing direct services, private physicians, small free clinics, and school-based health centers. Developing a list of which of these providers constitute the safety net in each study city proved relatively straightforward in the cities with a concentrated safety net system. In cities with a

1The study also examined overall hospital financial status because of its effect on the ability of hospitals to provide inpatient, outpatient, and emergency services to the uninsured.
dispersed safety net system, we were also able to identify major safety net providers. However, because many providers in the cities with dispersed systems served the uninsured to a significant degree, it was not always possible to get a complete picture of the safety net. Furthermore, data were lacking to establish a threshold that we could use to define safety net providers. To identify contributors to the safety net, we relied to a great extent on the perceptions of local leaders and providers. More specifically, we reviewed existing data sources and then further developed and refined the information during telephone interviews with key informants before the site visits. Although safety net providers could occasionally identify private physicians in the community who would see uninsured patients in their practices, respondents could not estimate the volume of such care provided.

In Columbus and Detroit, we found a dispersed safety net with several hospitals and clinics sharing the financial burden of ambulatory care. In the other three cities, we found a greater concentration of services offered by fewer safety net providers. The relative contribution of CHCs differed from city to city, ranging from San Antonio, where CHCs were the second-largest safety net provider, to Columbus, where CHCs ranked below several hospitals and the health department in the volume of care provided.

What is the need for safety net services by the uninsured?

To assess the adequacy of the capacity of the safety net, the first step is to estimate the need (including unmet need) for ambulatory care safety net services. One way to measure need is to determine the size of the uninsured population that should ideally be receiving free or discounted services. None of the five cities had conducted a local survey to measure the size and characteristics of its uninsured population, and few informants had even a general sense of the size of the uninsured population and its need (especially unmet need) for services. However, for three of the study cities, data on the rate of uninsurance are available. Surveys from 1996 and 1998 suggested that the rate of uninsurance in San Antonio was nearly twice that of Columbus and Detroit. Because of small sample sizes, the above surveys could not detect changes in the uninsurance rate between 1996 and 1998. However, the CHCs in four cities reported that the number of uninsured users of services was increasing while the expanding State Children’s Health Insurance Program (SCHIP) in Kansas City led to decreased caseloads of uninsured children. Safety net providers that could not provide precise estimates of the number of uninsured people they served generally believed that the demand for care by uninsured people at their organization was stable or increasing.

How adequate is the capacity of the ambulatory care safety net to meet the demand for care from the uninsured, and what can be learned about unmet needs?

The study defined the adequacy of the safety net as its ability to meet the needs, including unmet needs, of the uninsured. However, because of the lack of data on need, we examined adequacy in relation to expressed demand for care by using two “sentinel events:” reported waiting times for appointments and reported use of emergency rooms for nonurgent care. In the five study cities, waiting times were relatively short (one to two weeks) for most maternal and child health appointments but considerably longer for uninsured adult primary care and specialty care appointments. Further, the high volume of uninsured people who visited hospital
emergency rooms for nonurgent care, as reported by hospital emergency room directors and others, was striking in all five cities.

When we asked respondents if the capacity of the safety net was generally adequate to meet the need for services, respondents in all five cities pointed to few sources to which they could refer their patients for free specialist care. Many providers also reported an inadequate supply of dental care, behavioral health services, and free or low-cost pharmaceuticals. When we asked safety net providers whether they had the capacity to see more people, some said that they could take on more patients for primary care. However, none actively advertised its services to the uninsured.

**What changes in safety net capacity have occurred between 1996 and 1999?**

To study changes in the safety net, we asked about sites that had opened or closed during the study period as well as about changes in staffing, hours of operation, and space. Between 1996 and 1999, the capacity of the safety net expanded in three of the study cities. The exceptions were Detroit, where a major safety net hospital closed, and Oklahoma City, which faced smaller reductions in capacity for selected services such as dental and pharmaceutical services. All cities reported some expansion of CHC services. For example, in the four cities for which data for 1996 and 1999 were available, the number of full-time equivalent staff at CHCs increased by 25 percent, and CHCs also planned further expansions. However, for specialty services where the study identified the greatest capacity problems, no city reported actual or planned expansions of support. Generally, safety net hospitals, the major source of specialty care, lacked resources to increase free care.

**What factors, including public policies, influence the capacity of the safety net?**

The availability of financial resources was central to safety net providers’ ability to build and sustain capacity for serving the low-income uninsured. The key sources of revenue for safety net providers included Medicaid, Medicare, state and local public funding, and grant funding. The CHCs visited during the study appeared to be surviving, though they faced financial challenges. In contrast to the CHCs, however, many safety net hospitals faced more serious financial difficulties, and some had recently used their financial reserves to cover their losses, an unsustainable business strategy.

Decreased revenues resulting from Medicaid managed care were an acute problem for safety net hospitals. Safety net hospitals were also struggling with a decline in Medicaid disproportionate share hospital (DSH) funding, with state data for all five cities showing at least some decrease in Medicaid DSH funding during the study period. On the other hand, managed care payment rates were less of an issue for most of the CHCs we visited during the study. Many CHCs were protected by cost-based payment or other state policies and served a relatively low number of enrollees in capitated plans.

Safety net hospitals almost universally cited the Balanced Budget Act (BBA) (which introduced substantial cuts in Medicare payments) as another cause of financial stress. At the
time of our visit, hospitals had not yet had time to benefit from a new injection of federal dollars designed to ameliorate the BBA cuts.

Local public funding was an important source of revenue in four of the study cities (all but Oklahoma City), and it held steady or grew slightly between 1996 and 1999. State funding (aside from Medicaid and Medicaid DSH) was generally a less important revenue source than local funding. Few safety net providers in the study cities had yet received tobacco settlement funds. Federal grants, particularly from HRSA, were also important, especially for CHCs. Interviews and data confirmed that federal funds flowing to most CHCs increased from 1996 to 1999, although not as rapidly as funds from other sources. Finally, local foundations were a significant source of funding in two study cities, but other corporate and private philanthropy was generally limited.

The implementation of SCHIP had not yet had a major impact on most safety net providers in four of the study cities. The exception was in Kansas City where respondents reported that SCHIP had reduced the number of uninsured children. Respondents did not have a precise assessment of the impact of welfare reform. Some suspected that many people leaving welfare did not maintain their Medicaid coverage and became uninsured.

While public policies that influence the financing of the safety net were the most important factors affecting capacity, other factors emerged from the interviews. For example, safety net providers increased the efficiency of operations by reducing staff and reallocating resources while sustaining and expanding services.

Collaborative efforts between safety net providers are a potentially promising way to improve the availability and efficiency of safety net services. One type of arrangement we observed was a referral linkage between a safety net hospital and freestanding primary care providers (for example, CHCs) for specialty care. In addition, four of the five cities had a network of safety net organizations that allowed them to discuss coordinated lobbying efforts, patient referrals, or other topics designed to improve the local safety net. However, progress was slow, and collaborative efforts were not having a major impact on capacity at the time of the interviews.

What quantitative data are available to describe the safety net?

One of the study’s goals was to identify sources of quantitative data that could be used to monitor the changing structure, capacity, and financial stability of safety nets at the local level. We reviewed a variety of potential data sources including national sources (for example, Health Care Investment Analysts (HCIA) hospital data and HRSA’s Uniform Data System), state sources (for example, Medicaid DSH data and financial or caseload data for safety net providers), and local sources (for example, city budgets and foundation grants). In addition, we requested financial data and data on uninsured outpatient visits from each provider that we interviewed. The following data elements were available for some cities, providers, and time periods:

- Local-level trend data on the number of uninsured
• Data on uninsured ambulatory care visits to individual safety net providers

• Financial data on sources of revenue and revenue margins

We identified few reliable and readily available data sources to address the study’s research questions. The only national data source that proved useful in examining volume of services delivered to the uninsured was the HRSA Bureau of Primary Health Care’s Uniform Data System, which provides data on Community Health Centers. Local sources of data on the number of uninsured individuals were limited. While well-designed national surveys can provide some information for selected cities, sample sizes are generally too small to be useful. Only one state provided data on the number of ambulatory care visits for the uninsured. Although most safety net providers maintain such data, they could not or would not make it available to us within the study timeframe. States provided data on Medicaid DSH funding. Although limited quantitative data are currently available, data collection could be improved and expanded to track the safety net. The fact that relevant data are produced by many organizations and collected centrally by at least one state suggests that monitoring capabilities can be established if policymakers have the desire to develop such a system. For example, ambulatory care safety net providers could report key data in a common format drawing on experience with the Uniform Data System used by CHCs. In addition, more systematic collection of information on waiting times for appointments at safety net providers and on the use of emergency rooms for nonurgent care for the uninsured are potentially feasible ways to estimate the capacity of the safety net. Quantitative data alone, however, will not answer the broad policy questions that motivated this study. For example, qualitative studies are needed to examine the ways in which public policies can alter safety net capacity.

CONCLUSIONS

This pilot study of the ambulatory care safety net’s capacity to serve uninsured people has yielded insight into the safety net and how it is changing in five cities. We found that capacity was inadequate in all cities for certain types of services, particularly those provided by specialists. Primary care capacity, however, appeared to be expanding somewhat in three of the cities that we visited.

The study also provided important guidance for future studies that seek to monitor the capacity of the safety net. It identified which data sources are available or could be made available to study capacity issues at the community level. Should such data-collection efforts be undertaken, they will provide a firmer foundation for public policy decision making on the health care safety net.
SUGGESTIONS FOR FUTURE RESEARCH

To further the research initiated with this study, we suggest that future work:

- Improve key information for monitoring safety net capacity, by:
  - Beginning to work with states and local entities to obtain reliable local data on the number and characteristics (for example, age, sex, race) of uninsured people that could be used to estimate the need for services
  - Selecting one or two data elements with which to identify safety net providers (e.g., ambulatory care visits by the low-income uninsured, costs of serving the uninsured), and collecting these from all providers on a periodic basis to help profile the structure of local safety net systems
  - Using key informants to develop and verify the identity of safety net providers until such time as data and an agreed-upon methodology are available for this purpose
  - Obtaining uniform data from identified safety net providers on ambulatory care visits for the uninsured, revenue sources, and financial performance, either through one-time surveys or ongoing data collection, perhaps through state government efforts
  - Developing a uniform protocol for collecting appointment waiting times from providers, either through surveys or by directly calling appointment lines
  - Developing a uniform method for collecting data from safety net hospital emergency rooms on the delivery of nonurgent care to the uninsured and collect such data either through surveys or administrative records
  - Using interviews and other qualitative research to confirm and explain quantitative results and to anticipate changes in safety net capacity.

- Determine whether the health care system’s capacity for providing specialty services to the uninsured is as strained as it appeared to be in the five cities we studied, and if so, pursue solutions to the problem

- Build on this work to explore typologies of local safety net systems that may be important, but whose importance could not be determined based on the small number of cities we studied, such as typologies that differentiate safety net systems by dominant provider ownership type or by level of local financial support

- Continue work to understand the strengths and weaknesses of different types of safety net systems as they affect the uninsured, including the strengths and weaknesses of concentrated vs. dispersed safety net systems

- Further explore the critical role of local and state government support for the safety net (beyond Medicaid), both in terms of levels and models of support, to encourage more effective support strategies.
I. INTRODUCTION

A. IMPETUS FOR THE STUDY

In 1999, the Institute of Medicine (IOM) (2000) released a report entitled *America’s Health Care Safety Net: Intact but Endangered*. The study, which documented what is known about the structure of care for the uninsured and other vulnerable populations, concluded that because of the combined impact of numerous forces, safety net providers are fragile and at risk. The IOM committee recommended monitoring both the health of the local safety nets and the policies affecting them.

The Health Resources and Services Administration (HRSA) has come to recognize the validity of the IOM’s emphasis on the local nature of safety nets and the wide range of data constraints associated with understanding safety net operations. Neither national survey data nor information collected from HRSA’s own grantees provides enough information to answer questions about how safety nets are faring or how federal, state, and local policies may be influencing safety nets’ adequacy. Further, it is necessary to account for the fact that local safety nets are organized into a wide variety of configurations and operate in different environments. In late 1999, HRSA awarded a contract to Mathematica Policy Research, Inc. (MPR), to conduct a Study of Safety Net Provider Capacity to Care for Low-Income Uninsured Patients. The Office of the Assistant Secretary for Planning and Evaluation (OASPE) also provided funding for the study.

This study of the ambulatory care safety net in five communities represented a first step in finding a way to answer two key monitoring questions:

- Is the capacity of the safety net adequate to meet community needs?
- How do federal, state, and local policies and other forces affect the viability or vulnerability of safety nets?
The study posited a set of policy questions and hypotheses that operationalized these two questions. At the same time, the study methodology was designed to overcome the limitations of existing national data by relying on qualitative and quantitative local data.

The study focused primarily on ambulatory care in five cities, though to the extent feasible, it also examined inpatient care. The study findings cannot be generalized to all parts of the country—nor do they address all aspects of safety net capacity. However, exploring quantitative and qualitative data at the community level will help to improve the ability to study the nation’s safety net.

B. STUDY BACKGROUND

Researchers have made some attempts to document the structure and capacity of the safety net, as well as the need for safety net services. Our study drew on earlier investigations so that we would not duplicate previous efforts and would identify methods we might adapt for our work.

Several researchers have attempted to estimate the number of uninsured. Many of the studies used the Current Population Survey (CPS) (Fronstin 1998; Brown et al. 2000). The CPS is a current source of data on the uninsured, but its small sample sizes for specific local areas limit its usefulness. The Center for Studying Health System Change overcame this limitation to some extent by increasing the sample size in selected communities and studying the safety net in those localities in greater detail in order to identify factors that influenced access to care (Cunningham and Whitmore 1998).

Regardless of the methods used, studies of the uninsured population consistently have demonstrated that the uninsured have greater difficulty than the insured population in obtaining care (Families USA 2001). For example, Ayanian et al. (2000) showed that, compared with less
than 10 percent of insured adults, more than a third of a national sample of uninsured adults could not see a doctor when needed because of cost.

Other studies have focused more on safety net providers than on the patients who use safety net services. Such studies have examined hospitals in general (Lewin and Altman 2000; Guterman, et al. 2001), hospitals converting to for-profit status (Needleman et al. 1999), disproportionate share hospitals (Fagnani and Tolbert 1999), and other types hospitals such as teaching or public hospitals (The Commonwealth Fund 2001; Guterman et al. 2001). These studies have often used data on uncompensated care, bad debt, or charity care as reported annually in hospital cost reports as a proxy measure of the volume of care delivered to the uninsured.

In terms of safety net ambulatory care, studies have focused on community health centers (CHCs) (Kaiser Family Foundation 2000; Harrington et al. 1998) and emergency rooms (Billings et al. 2000) as major sources of care for the uninsured. National data on CHCs are now available from the Uniform Data System (UDS), which is based on annual reports of utilization and revenues for all federally funded CHCs. Studies have focused less often on private physicians because of the absence of reliable data on this source of care for the uninsured.

In rare cases, studies have examined both the need for safety net care (as measured by the size of the uninsured population), its availability, and how the two are related. Rask and Rask (2000) found that the presence of a public hospital in a person’s county of residence was associated with a higher likelihood of being uninsured. There are trade-offs in using state and local funds to subsidize safety net providers versus insurance coverage, and communities across the nation have approached the subsidization of care for the uninsured in a variety of ways.

In addition to the generally quantitative methods used in the preceding studies, researchers have provided a more qualitative picture of the safety net by examining it through the eyes of local informants (Felt-Lisk et al. 1997; Gold and Mittler 2001; Gold et al. 2000). Furthermore,
the Agency for Healthcare Research and Quality, HRSA, and OASPE convened an expert panel to examine ways to improve safety net data.

This study has been one of the first to examine whole safety net systems across sites. It uses the community as the unit of analysis, focusing on the ambulatory care safety net for the uninsured populations. We use both qualitative and quantitative data to provide a picture of safety net capacity. The report was written for policymakers at the federal, state, and local levels; health policy researchers and researchers with an interest in data collection; and those concerned with safety net provider issues. This study is not focused on the safety net for the underinsured or other vulnerable populations in keeping with our research questions; however, we recognize the importance of conducting similar research for these groups in the future. We encourage new readers interested in obtaining further background on the health care safety net to review the IOM report referenced in Section I.A.

C. RESEARCH OBJECTIVES

The study addresses the research questions in Table I.1. We describe the safety net as it existed in the five study cities between 1996 and 1999 and characterize how the safety net changed during that period. We describe the need for care both as perceived by providers and as evidenced by limited quantitative data. When capacity changed, we documented what is known about the factors that contributed to the changes. In addition to addressing the research questions, a secondary but important study objective was to explore the data that were available or could be made available to monitor safety net providers’ capacity.
TABLE I.1
RESEARCH ISSUES FOR SAFETY NET STUDY

<table>
<thead>
<tr>
<th></th>
<th>1. What is the composition of the safety net, and what is the contribution from each type of safety net provider to ambulatory care for the uninsured?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. What is the need for safety net services by the uninsured?</td>
</tr>
<tr>
<td></td>
<td>3. How adequate is the capacity of the ambulatory care safety net to meet the demand for care from the uninsured, and what can be learned about unmet needs?</td>
</tr>
<tr>
<td></td>
<td>4. What changes in safety net capacity have occurred between 1996 and 1999?</td>
</tr>
<tr>
<td></td>
<td>5. What factors, including public policies, influence the capacity of the safety net?</td>
</tr>
</tbody>
</table>

In describing the safety net and the factors that affected its capacity, we used the conceptual framework presented in Figure I.1. We viewed the safety net as comprising six major components: hospitals, HRSA-funded health centers, health department clinics, other health centers, private physicians, and other community providers, including small free clinics. The factors that affected the safety net were community characteristics, financial resources for funding the safety net, the need for services (measured primarily by the size of the uninsured population), and the infrastructure of the existing safety net. For example, the level of state subsidies—such as Medicaid disproportionate share funding to hospitals—affect hospitals’ ability to provide ambulatory care to the uninsured in their emergency rooms or through their outpatient departments.

D. METHODOLOGY

1. Site Selection

We used a case study methodology to examine the safety net in the five cities. We collected data for the case studies from site visits to each city and from secondary data. HRSA and OASPE collaborated with us in the selection of the five cities. The selection process was designed to ensure that all five cities met a set of five criteria that would allow us to address the
FIGURE I.1
FRAMEWORK OF FACTORS AFFECTING SAFETY NET CAPACITY

Capacity of the Safety Net

- Hospital Clinics and ERs
- HRSA-Funded Health Centers
- Other Health Centers
- Health Department Clinics
- Private Physicians
- Other Community Providers

Financial Resources
- Medicaid
- HRSA and Other Federal Grants
- Local Public Subsidies
- State Subsidies
- Medicare
- Other (Foundations, Philanthropy)

Community Characteristics
- Market Competition
- Historical Funding of Safety Net
- Excess Hospital Capacity
- Managed Care

Need for Services
- Number of Uninsured
- Preferences and Options Available to Uninsured
- Programs to Cover the Uninsured

Safety Net Provider Infrastructure
- Management and Efficiency
- Staff Resources
- Data Systems
research questions. First, because we wanted to examine the impact of Medicaid managed care on safety net providers, we chose cities that had substantial experience with mandatory Medicaid managed care, either with full-risk plans or primary care case management (PCCM). Second, we selected cities with relatively high rates of poverty. Third, we looked for cities that would enable us to observe a variety of safety net structures. For example, we included at least one city with and at least one city without a public hospital; however, each city had at least one federally funded CHC. Fourth, the cities had to be “manageable” in size. That is, we chose midsize cities so that we could visit all the major safety net providers during our time on site. Finally, we tried to avoid cities where other researchers were conducting interviews with the safety net providers and cities that had been studied extensively in the past. Ultimately, we selected: Columbus, Ohio; Detroit, Michigan; Kansas City, Missouri; Oklahoma City, Oklahoma; and San Antonio, Texas.

2. Site Visit Interviews

All members of the research team participated on a two-day pilot site visit to Columbus in May 2000. Smaller teams then conducted four-day visits to each remaining city between July 2000 and January 2001. The site visit team consisted of two researchers from MPR and at least one representative from HRSA or OASPE. To the extent possible, we interviewed the same types of safety net organizations and people in all five sites. We developed a set of interview guides tailored to each respondent type (for example, hospital CEOs, hospital CFOs, and health department directors). Generally, the protocols covered the background of the organization; its
capacity to serve the uninsured; changes in federal, state, or local policies; Medicaid managed care; and finances.¹ Each interview lasted 45 to 75 minutes.

Before each site visit, we contacted the state primary care association,² the hospital association, and the HRSA regional office by telephone to gather suggestions on the most appropriate organizations and individuals to meet with during our site visits. The previsit interviews also yielded information on the structure of the safety net, changes in capacity, and issues or policies affecting safety net providers. Using information from both the previsit interviews and secondary data sources, we developed a background memorandum on each city and shared it with site visitors before the visit.

During the site visits, we met with (at a minimum) the CEO and CFO of the CHCs as well as with the CEO or designee at other local community clinics and free clinics. We visited at least two hospitals in each city. (Table I.2 shows the number and types of organizations we visited in each city.) At the largest safety net hospital, we met with the CFO, emergency department chief, outpatient department head, and community development director. At other local hospitals, we met with the CEO or designee. We also met with the health department director in each city and with one or two providers of medical and social services to uninsured people with HIV/AIDS. Finally, we met with a nonprovider organization that could offer an overall view of the safety net. For example, we talked with a representative of the United Way in Columbus and representatives of a hospital conversion foundation in San Antonio.

¹ The interview guides are available from Mathematica upon request. To obtain them, contact Jackie Allen, (609) 275-2350, and request “Study of Safety Net Provider Capacity to Care for Low-Income Uninsured Patients: Final Draft Site Visit Protocols.”
² Primary care associations are private nonprofit membership associations that represent HRSA supported community health centers and other community-based providers of care to the underserved.
TABLE I.2
NUMBER OF ORGANIZATIONS VISITED, BY CITY

<table>
<thead>
<tr>
<th>Type of Organization</th>
<th>Columbus</th>
<th>Kansas City</th>
<th>Oklahoma City</th>
<th>Detroit</th>
<th>San Antonio</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHCs</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Hospitals</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>HIV Providers</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Other Health Centers a</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Health Department</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Nonprovider Organizations</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>10</td>
<td>10</td>
<td>11</td>
<td>8</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: We interviewed more than one person at some organizations. The table does not include all organizations interviewed (such as representatives from the state or a panel of private physicians; only the major categories of organizations are shown).

a Other health centers include local health centers (non-CHCs) as well as small clinics (see Chapter II).

3. Secondary Data Sources

One major objective of the study was to explore secondary data sources that could be used to track and evaluate local safety nets. We spent considerable time reviewing a variety of potential data sources, including the following:

- National sources, such as Health Care Investment Analysts (HCIA) - Sachs hospital data and HRSA’s Uniform Data System
- State sources, such as Medicaid disproportionate share hospital (DSH) payment data and other hospital financial or caseload data collected by states

3 The technical appendix to this report includes the full list of data sources used in the study.
Local sources, such as city newspapers, city data on the distribution of local taxes, and other data on local subsidies and program funding

In addition to these data, we requested financial data and data on uninsured outpatient visits from each provider organization during the site visits.

4. Terminology

It is important to clarify a few terms used throughout the report. We define safety net providers as providers that serve a high volume of uninsured people and/or providers for which the uninsured form a high percentage of the total caseload. However, because data on uncompensated care volume were often difficult to collect, we relied heavily on the previsit interviewees to identify most safety net providers. We believe that these respondents had the most reliable in-depth knowledge of the local health care system. During our site visits, we asked providers if we captured all the safety net providers in the community. In some cases, we conducted follow-up interviews with providers not originally identified by the previsit interviews.

We define capacity as the volume of patients that a provider has the ability to care for. Adequacy of capacity is determined by safety net providers’ ability meet the need for safety net services. Users are those who seek and receive services from safety net providers. Nonusers are people in need of services who, for whatever reason, do not request and receive care. The policy concerns leading to this study relate to the needs of both users and nonusers, although only limited data were available for the second group (nonusers).

4 The Institute of Medicine defines safety net providers as providers that organize and deliver a significant level of health care and other related services to uninsured, Medicaid, and other vulnerable populations (Lewin and Altman 2000). Our operational definition of safety net providers focuses on the uninsured, rather than other vulnerable populations, in keeping with our research questions.
Need is the amount of medical services which expert medical opinion believes ought to be consumed to maintain health or become healthy (Jeffers 1971). The difference between the amount of services needed and the quantity of services actually consumed is unmet need. Demand is the quantity of medical services that would be consumed by an individual under various market conditions. However, individuals may not demand the full amount of services needed because of various barriers, such as insufficient knowledge of the services that should be obtained, an inability to pay for health services, language difficulties, or transportation challenges. Expressed demand is the amount of services actually consumed. In this report, we generally use the concept of expressed demand when discussing capacity due to our inability to measure need. It is important to keep in mind that even if a safety net system were able to meet the expressed demand for care by the low-income uninsured, unmet need may still persist.

E. BACKGROUND ON THE STUDY CITIES

The five study cities evidenced considerable differences in sociodemographic characteristics. These characteristics shaped the local context, and context is a critical factor in the investigation of local safety nets. For example, Table I.3 shows that San Antonio had a larger total population and a larger percentage below poverty than Columbus. Consequently, we expected a greater need for safety net services in San Antonio than in Columbus. Similarly, Kansas City and Oklahoma City had about the same number of residents, but Oklahoma City had almost twice Kansas City’s land area. So geographic inaccessibility of safety net services posed a potentially greater barrier in Oklahoma City than in Kansas City.

In the next chapter, we describe the major components of the safety net system in the five study cities and discuss changes that occurred within the systems between 1996 and 1999.
## TABLE I.3
### PROFILE OF STUDY CITIES

<table>
<thead>
<tr>
<th>City</th>
<th>Population, 2000</th>
<th>Land Area (km²)</th>
<th>Percent White</th>
<th>Percent African American</th>
<th>Percent Hispanic</th>
<th>Index of Medicaid Eligibility Generosity b</th>
<th>Percent of Medicaid Enrollees in HMOs, 1999</th>
<th>Percent below Poverty c</th>
<th>Medicaid Spending per Enrollee, 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus</td>
<td>711,470</td>
<td>494.5</td>
<td>67.9</td>
<td>24.5</td>
<td>2.5</td>
<td>8</td>
<td>27.9</td>
<td>11.1</td>
<td>$4,330</td>
</tr>
<tr>
<td>Kansas City d</td>
<td>441,574</td>
<td>806.9</td>
<td>66.8</td>
<td>29.6</td>
<td>3.9</td>
<td>7</td>
<td>39.9</td>
<td>12.2</td>
<td>$3,436</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>506,132</td>
<td>1,575.1</td>
<td>68.4</td>
<td>15.4</td>
<td>10.1</td>
<td>6</td>
<td>10.4</td>
<td>15.8</td>
<td>$2,864</td>
</tr>
<tr>
<td>Detroit</td>
<td>951,270</td>
<td>359.3</td>
<td>12.3</td>
<td>81.6</td>
<td>5.0</td>
<td>2</td>
<td>61.5</td>
<td>18.0</td>
<td>$3,944</td>
</tr>
<tr>
<td>San Antonio</td>
<td>1,102,775</td>
<td>862.6</td>
<td>67.7</td>
<td>6.8</td>
<td>58.7</td>
<td>7</td>
<td>4.3</td>
<td>18.5</td>
<td>$3,101</td>
</tr>
</tbody>
</table>

Sources: Population, population characteristics, and percent below poverty are from census data. Land area is from the 2000 City and County Extra, and percent of Medicaid enrollees in HMOs was developed through analysis of Interstudy data. Medicaid spending per enrollee is from the Kaiser Family Foundation State Health Facts.

a Hispanic persons may be of any race.
b This measure was developed by the Urban Institute to assess the generosity of states’ Medicaid eligibility rules. Among other factors, the scale accounts for state eligibility expansions beyond mandatory populations, the percentage of the population below 200 percent of poverty eligible for Medicaid, TANF income limits, and the existence and size of general assistance medical care and/or other state-subsidized health insurance programs. States with the most generous Medicaid eligibility rules are in Category 1 while states with the most restrictive eligibility roles and in Category 8.
c Percentage of persons below poverty is based on county data.
d Population data are from 1998; population characteristics are from 1990.
II. STRUCTURE OF THE SAFETY NET

To determine the adequacy of safety net capacity and identify factors that support or undermine that capacity, it is necessary first to identify the major safety net providers. Safety net systems vary from city to city, depending on the level of need for services, state and local public support, the local health care market, and historical factors. This chapter provides an overview of one safety net system, discusses the major organizations that make up the safety net, and reviews changes that occurred from 1996 through 1999 among the safety net organizations in the five study cities.

A. THE COLUMBUS SAFETY NET SYSTEM

We set out to develop a picture of each of the five local safety net systems to show the number of uninsured visits by each safety net provider. In this way, we could determine the relative contribution of each safety net provider to the total local safety net. However, we were unable to obtain complete data on the number of uninsured outpatient visits from hospitals in four cities; therefore, we were limited to developing a profile only for the Columbus safety net, as presented in Figure II.1 for 1998. Columbus’s seven hospitals were collectively the largest safety net providers in the city, followed by the health department, the CHC, and a local free clinic. The largest individual provider overall was the children’s hospital.

While we could not fully compare the Columbus safety net with other cities because of the lack of data, the limited information led us to believe that Columbus differed from the other safety net systems. For example, in San Antonio, we were able to collect

5 Hospital data on uninsured outpatient visits for Columbus were obtained through the Ohio State Department of Jobs and Family Services. See the technical appendix to this report for a greater explanation of the data limitations and their implications.
FIGURE II.1

PERCENT OF TOTAL UNINSURED OUTPATIENT VISITS IN COLUMBUS, 1998

![Pie chart showing the distribution of uninsured outpatient visits. Hospitals account for 75%, Health Department 15%, CHC 9%, Small Clinic 1%.]

Source: MPR analysis of hospital data provided by the State Department of Jobs and Family Services, UDS data, and data collected from the health department and a small clinic. Only 1999 data were available from the small clinic. Emergency room visits were included in hospital data. Outpatient visits provided by office-based private physicians were not included because of a lack of data. The volume of visits to CHCs was roughly estimated from UDS data using the assumption that the percentage of users who were uninsured and the percentage of encounters by uninsured people were the same.

the number of uninsured outpatient visits from the two hospitals identified through interviews as the largest safety net hospitals. The dominant safety net hospital recorded 14 times the number of uninsured outpatient visits as the second-largest safety net hospital. In addition, the CHCs in San Antonio registered eight times the number of uninsured outpatient visits as the second-largest safety net hospital. If we were able to diagram the San Antonio safety net, the dominant safety net hospital and two CHCs would take up most of the picture. We estimated that the dominant safety net hospital alone provided approximately half of all the uninsured outpatient visits in San Antonio in 1999. In contrast, none of the safety net providers in Columbus provided an overwhelming majority of uninsured outpatient visits. The individual safety net
hospitals, the health department, and the CHC provided relatively similar amounts of care to the uninsured in Columbus.

We can speculate from examining the five study cities that the presence of a large publicly funded hospital may contribute to a more concentrated safety net system. If a city has a publicly funded hospital with a mission to serve the uninsured, other hospitals in the city may feel less obligated to take on uninsured patients and may refer the uninsured to the public hospital. The dispersion of poverty in Columbus may also have contributed to its dispersed safety net system. We learned that, unlike in other large cities, low-income residents in Columbus resided throughout the city (rather than in one or two low-income neighborhoods) and tended to seek health services from hospitals closest to their homes.

The level of concentration or dispersion of safety net services is an important aspect of a safety net system. In a concentrated system, uninsured residents may be more aware of the organizations that are willing to provide services to the uninsured. Therefore, they may be more likely to seek services when in need. However, a concentrated system may be more financially vulnerable than a dispersed system. If one of the dominant providers is financially stressed and reduces services to the uninsured, the other area providers may be unwilling or unable to care for the displaced patients. A dispersed system may be more stable in that no one safety net organization bears the financial burden of a disproportionate share of uncompensated care.

B. MAJOR SAFETY NET PROVIDERS AND HOW THEY HAVE CHANGED SINCE 1996

The IOM study classified safety net providers as core and noncore. Core safety net providers, often referred to as essential community providers or providers of last resort, maintain an open-door policy regardless of ability to pay. They tend to have a narrow patient base and little ability to shift costs, and they often offer wrap-around services (Lewin and Altman 2000). An example of a core safety net organization is a public hospital or a 330-funded community
health center. Noncore safety net providers are individuals and organizations that support the delivery of health care to a variety of vulnerable populations. They deliver care to the low-income uninsured but may limit that care in some way. An example of a noncore safety net provider is a not-for-profit hospital system that delivers some free care to the uninsured.

In this study, we decided not to use the core/noncore distinction. We thought it was more important to identify the providers that deliver the most uncompensated care in each city regardless of the organizations’ mission or policies. For example, in Columbus, none of the hospitals (with the possible exception of the children’s hospital) met the definition of a core provider, yet they collectively provided the largest share of uninsured outpatient care in the city. In this section, we highlight the major safety net organizations. Whenever data were available, we also quantified the volume of service they provided to the uninsured.

1. Hospitals

In each of the five cities, hospitals more than any other type of provider collectively provided a greater volume of care to the uninsured. While other safety net providers provided primary and outpatient specialty care, hospitals alone typically provided inpatient and emergency care. Emergency rooms in particular served as major entry points to the health care system for uninsured residents. Several respondents described emergency rooms as “the safety net of the safety net” because they delivered primary, urgent, and emergency care to walk-ins 24 hours a day regardless of ability to pay. Many hospitals we visited used sliding-fee scales or special payment policies in their outpatient departments for low-income uninsured patients, but the payment requirements, along with the long waiting times for appointments, deterred some people from patronizing outpatient department clinics.

Three of the five cities (Kansas City, Oklahoma City, and San Antonio) had a dominant safety net hospital that was supported by public funding in addition to Medicaid disproportionate
share hospital payments (see Table II.1). These dominant hospitals provided a major proportion (if not most) of the uncompensated hospital care in their respective cities and had a long history and reputation of serving the uninsured. For example, in San Antonio, the public hospital was the source of 70 percent of uncompensated care in the city in 1999 (Texas Department of Health 2000). Still, other hospitals in the three cities, including for-profit hospitals, provided at least some care to uninsured patients. The five Methodist hospitals owned in part by HCA (formerly Columbia HCA) reported more than $19 million in uncompensated care in 1999, or roughly 10 percent of the market’s total.

In Columbus and Detroit, where there was no dominant safety net hospital, local hospitals shared responsibility for the uninsured. In these cities, the two largest safety net hospitals (in terms of volume of uncompensated care) provided roughly the same amount of uncompensated care. In Columbus, uncompensated care costs for the two major hospital systems totaled $25 million in 1999 (or 30 percent of the total of all uncompensated care), with the largest safety net hospital providing only 16 percent of all charity care and bad debt in the city. Other hospitals in the city provided a similar amount of uncompensated care (Ohio Department of Jobs and Family Services 2000).

Children’s hospitals played a particularly large role as safety net providers in all five cities, as they were the major providers of specialty and emergency care for uninsured children. Other safety net providers typically referred all uninsured children to the local children’s hospital for services beyond primary care. In Columbus, the children’s hospital accounted for more total uninsured outpatient visits than any general hospital in the city—58,400 uninsured outpatient visits.

Uncompensated care is the sum of bad debt and charity care. Bad debt is defined as the cost of care for which payment was expected but never collected; charity care is defined as the cost of care delivered without expectation of payment and that is provided to patients unable to pay for services (Walsh Center for Rural Health Analysis 2000).
TABLE II.1
UNCOMPENSATED CARE AT COST, 1999
(In Thousands of Dollars)

<table>
<thead>
<tr>
<th>Site</th>
<th>Largest Safety Net Hospital</th>
<th>Second Largest Safety Net Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uncompensated Care</td>
<td>Percent of City Total</td>
</tr>
<tr>
<td>San Antonio</td>
<td>$133,671</td>
<td>70</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>$43,390</td>
<td>59</td>
</tr>
<tr>
<td>Kansas City</td>
<td>$30,618</td>
<td>48</td>
</tr>
<tr>
<td>Detroit</td>
<td>$36,090</td>
<td>24</td>
</tr>
<tr>
<td>Columbus</td>
<td>$13,700</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: MPR analysis of bad debt and charity care data provided by states for Texas, Oklahoma, Missouri, and Ohio. Michigan data were provided by the Michigan Health and Hospital Association. Data include inpatient and outpatient services. Some hospitals may not have reported. MPR calculated bad debt and charity care costs for hospitals in Detroit, San Antonio, and Kansas City by multiplying charges by the cost-to-charge ratio (total expenses/gross patient revenue + other revenue).

a Data on uncompensated care are charges rather than costs. Data are for 1998.
b Data are for 1998.

visits in 1998 compared with 20,300 visits for the next-largest hospital provider (Ohio Department of Jobs and Family Services 2000).

From 1996 to 1999, three significant changes occurred among the hospitals in our study. First, Mercy Hospital, a major safety net hospital in Detroit, closed in 1998 as a consequence of financial losses. Mercy served more than 10,000 uninsured patients in 1997 but had lost more than $100 million in its last 10 years of operation. The hospital’s closure represented the largest and most significant change in any of the five safety net systems during the study period. Second, in Oklahoma, the state signed a joint operating agreement with Columbia HCA in 1997, turning management of the major public hospital over to HCA for 50 years. The state entered into the agreement because the hospital was experiencing financial losses. Declining revenues,
cuts in Medicaid funding, and drops in patient numbers left the hospital with $15 million in losses in 1997. Officials at the hospital said the partnership was necessary to keep the hospital open. Under the agreement, HCA must maintain the same level of uncompensated care as provided by the public hospital in past years. Finally, in 1998, the nonprofit Methodist Health System in San Antonio (not a major safety net provider) merged with the for-profit HCA, spawning a conversion foundation and adding new resources to the local safety net.

2. Community Health Centers

CHCs receive federal funding in accordance with the provisions of Section 330 of the Public Health Service Act. The centers provide primary and preventive health care services in medically underserved areas or to medically underserved populations. Using a sliding-fee scale for uninsured low-income residents, they primarily deliver general medical care as well as family planning, pharmacy, and social services. In many cases, they offer dental services. Some CHCs provide some specialty care, but all are required to establish referral networks for patients in need of specialty services. CHCs are also significant providers of care for low-income people covered by Medicaid, Medicare, and the State Children’s Health Insurance Program (SCHIP). The centers are important to the safety net because they are typically located in low-income residential areas and provide the uninsured with the means to establish a relationship with a primary care provider. In addition, they can link patients to welfare and Women, Infants and Children (WIC) services, to Medicaid and SCHIP insurance, to substance abuse treatment, and to related services.

Nine CHCs operated in the five cities we visited, many at multiple sites. CHCs played a greater role in some cities than others (see Table II.2). For example, Oklahoma City had a slightly higher population than Kansas City, but Kansas City CHCs had more than 35,000 more uninsured encounters than Oklahoma City CHCs.
**TABLE II.2**

ESTIMATED NUMBER OF UNINSURED ENCOUNTERS AT CHCs IN 1999, BY CITY

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of CHCs</th>
<th>Total Number of Encounters</th>
<th>Number of Uninsured Encounters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus</td>
<td>1</td>
<td>49,314</td>
<td>28,109</td>
</tr>
<tr>
<td>Kansas City</td>
<td>2</td>
<td>174,245</td>
<td>82,785</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>2</td>
<td>57,498</td>
<td>46,413</td>
</tr>
<tr>
<td>Detroit</td>
<td>2</td>
<td>96,675</td>
<td>66,013</td>
</tr>
<tr>
<td>San Antonio</td>
<td>2</td>
<td>240,291</td>
<td>172,889</td>
</tr>
</tbody>
</table>

Source: MPR analysis of data from the Bureau of Primary Health Care’s Uniform Data System (UDS). The UDS contains data on total encounters and percent of uninsured users. We assumed that the percentage of users who were uninsured and the percentage of encounters by uninsured people were the same.

A few changes occurred from 1996 through 1999 among the CHCs in our study cities. In Columbus, a CHC closed in 1996 but continued to operate as a site of the local health department. Also in Columbus, seven local health centers funded by the health department (including the former CHC) merged in 1997 to create a new federally funded CHC.

Administrators of the centers hoped that centralizing administration would improve efficiency and stabilize and increase funding. In San Antonio, one CHC was taken over by another in 1999 when operational problems threatened the former’s 330 funding.

### 3. Other Local Health Centers

Three of the study cities also had privately run health centers that acted as safety net providers but did not receive federal 330 funding. These local health centers offer similar services as CHCs, although they tended to serve a niche population, such as Spanish-speaking patients, HIV patients, or women and children. The centers were supported primarily by grants from the city, foundations, or HRSA, but some also bill Medicaid. As shown in Table II.3, the volume of visits in the centers was considerably lower than in most 330-funded centers.
TABLE II.3
PROFILE OF LOCAL HEALTH CENTERS BY CITY, 1999

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of Local Health Centers</th>
<th>Total Number of Uninsured Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oklahoma City</td>
<td>1</td>
<td>10,698</td>
</tr>
<tr>
<td>San Antonio</td>
<td>2</td>
<td>30,000</td>
</tr>
<tr>
<td>Kansas City</td>
<td>2</td>
<td>24,052(^a)</td>
</tr>
</tbody>
</table>

Source: Individual health center data collected by MPR. Data for one center in Kansas City was estimated from data on the center’s Web site.

\(^a\)Data for one center in Kansas City are for 1998.

Minor changes in these local health centers from 1996 through 1999 also contributed to the changes in the structure of two safety net systems. In 1997, the Methodist hospital conversion foundation created two new local health centers in San Antonio. In addition, to stabilize funding, one of the health centers in Kansas City merged with a hospital.

4. Health Departments

According to local informants, the local health departments in the five study cities were important to the safety net, and all five delivered direct patient care to the uninsured. The health departments operated clinics that provided, at a minimum, prenatal or perinatal care and well-child visits. Many of these clinics also provided HIV, adult medicine, dental, and obstetrics and gynecology services. However, with the emergence of Medicaid managed care, SCHIP, and the national debate over the purpose and function of local health departments, health departments began re-examining their role as a direct service provider. In fact, three of the health departments—in Columbus, Detroit (before 1996), and San Antonio—turned some of their clinics into CHCs, and they continued both to run their own clinics and to support the CHCs, through either direct funding or programmatic assistance. For example, the Columbus and Detroit health departments provided some funding to CHCs for pharmaceuticals. While the shift
reduced the health departments’ patient care role, it also brought additional federal funding to the clinics to bolster the local safety net.

Even though the local health departments generally wanted to reduce their volume of direct services, they recognized their obligation to balance desired service reductions against the needs of the community and the concerns of other safety net providers that could not afford to serve additional uninsured patients. For example, the health department in Oklahoma City doubled its volume of patients over the past six years in response to the growing need for care. If that department had stopped delivering some services, Oklahoma City’s relatively weak safety net probably would not have been prepared to handle the resulting volume of displaced patients. Consequently, the health department decided to continue to act as a provider of last resort for the uninsured.

The Detroit health department wanted to convert its remaining clinics into a CHC (in order to secure federal funding and allow the department to focus on public health activities). The proposed plan did not, however, gain broad political support. The three largest health systems in the Detroit market had a contract with the department to staff the clinics, and they opposed the proposed change. Even if the Detroit and Oklahoma health departments could reduce their direct services, they would likely continue providing some clinical services such as TB testing, immunizations, and family planning.

The Kansas City health department was in a better position to begin reducing its role as a direct medical provider. The successful SCHIP enrollment in that city reportedly cut the demand for well-child visits—private providers began serving children enrolled in SCHIP—so that the health department could narrow the scope of services it provided.

In contrast to trends in Detroit and Kansas City, the Columbus and San Antonio health departments wanted to expand their reach. In Columbus, health care issues receive broad public support, and the board of health and city council continued increasing the public dollars available
to the health department to expand services. Although the department supported the conversion of the local health centers it funded into a CHC in 1997, utilization of some services in the remaining clinics doubled, and the department expanded the clinic hours to accommodate more patients. The health department in San Antonio was trying to expand services so that it could reach former patients who were relocated when several housing projects closed.

5. Private Providers

It was difficult to develop a clear picture of the role of private physicians in the safety net because data on care delivered by such providers to the uninsured were unavailable. The physician survey developed by the Center for Studying Health System Change (HSC) under the Community Tracking Study provided some data on private physicians’ role in the safety net. HSC researchers found that, across the nation, more than one-third of uninsured respondents reported a doctor’s office as their usual source of care in 1996 (Lewin and Altman 2000). The physician survey also showed that, in 1996, U.S. physicians reported providing, on average, 8.7 hours of charity care per month; in 1998, the figure declined slightly to 8.2 hours. If we assume that all private physicians contributed the average amount of charity care, the collective volume of care would be noticeably large.

Nonetheless, when asked about the role of private providers in caring for uninsured patients, safety net providers surmised that the amount of ongoing free care provided by physicians in private offices was small. Safety net providers in all five cities generally agreed that they had difficulty referring uninsured patients to private physicians, although there were exceptions. A few safety net providers said that while there was no formal way to refer patients to private physicians, they sometimes used personal connections to get an uninsured patient an appointment. In addition, some local medical societies developed lists of private physicians who were willing to accept uninsured referrals. However, we heard that the lists were often outdated.
or inaccurate. At least one of the medical societies retained a staff member who assumed responsibility for responding to requests and referring uninsured patients, thereby ensuring that patient volume would not be concentrated among a small number of providers.

During our interviews, we heard about several examples of how physicians were less willing than in the past to provide free care. Several free clinics said it was more difficult to get physicians to donate time, and one hospital said that staff physicians were starting to refuse to be on call in the emergency room because so many patients were uninsured. Respondents cited a number of reasons that might explain the decline in willingness. Some said that a decrease in provider income was motivating private physicians to see more insured patients, a trend that some attributed directly to managed care. One private physician said that the large overhead and administrative burden associated with managed care prohibited physicians from providing much uncompensated care.

Our interviews also suggested a shift in the way that some private physicians contributed to the safety net. We heard that many private physicians preferred to volunteer at free clinics rather than see uninsured patients in their offices. This preference may have grown out of physicians’ concern that their privately insured patients would feel “uncomfortable” in waiting rooms with uninsured patients. Indeed, the Physicians Free Clinic in Columbus was created in 1995 because physicians were willing to see uninsured patients, but not in their private offices. Safety net providers interviewed in Kansas City generally agreed that uninsured patients could not easily obtain care from private providers. However, a free clinic in Kansas City counted more than 400 physician volunteers who donated their time to patients at the clinic.

In Detroit, we learned that one major hospital system no longer allowed staff physicians to see uninsured patients in the outpatient departments. Consequently, volunteering at a free clinic was the only alternative for those physicians who wanted to contribute to the safety net. If, in
fact, private physicians were providing less care in their offices and donating more time to local clinics, the net gain or loss was unclear.

6. Small Clinics

Three study cities—Detroit, Columbus, and Oklahoma City—had small clinics that played a role in the safety net. We define small clinics as free health clinics staffed by volunteers who provide care during limited hours (typically only a few evenings per month). The size of the clinics varied, but most saw 30 to 200 patients per month. Small clinics were often makeshift facilities in schools or churches, and they were usually funded by donations from the public. They primarily provided adult primary care (one also provided specialty care), and most acted as dispensaries, providing patients with free pharmaceuticals.

Many of the small clinics are faith-based. Some evolved when local churches recognized a need and asked for support from religiously affiliated hospitals. Hospitals provided some support to the clinics by encouraging physician volunteers or by donating equipment or pharmaceuticals. In one case, a hospital system provided technical assistance to establish the clinic, then supported the clinic by hosting periodic meetings with clinic and church staff. The local churches provided a clinic coordinator (typically a volunteer), space for the clinic, and small financial contributions.

The role of hospitals in clinic partnerships varied—some hospitals provided significant financial and staff support. Others, however, may have used the partnership as a way to reduce other care to the uninsured. We heard that some hospitals referred uninsured patients to the small clinics but would not accept uninsured referrals from the clinics for specialty care.

The importance of the small clinics to the safety net was debatable. On the one hand, clinics provided a comfortable environment for undocumented residents in that practitioners did not ask for names or addresses. In addition, as providers of last resort, they delivered care for patients
who could not obtain care elsewhere. However, many of the safety net providers we interviewed during the study did not view the small clinics favorably. Because the clinics had limited, sporadic hours of operation, their contribution to the safety net was small. But, more important, the limited hours of operation interfered with the clinics’ ability to meet patients’ future needs. To the extent that alternative safety net organizations had the capacity, it may have been in patients’ best interest to develop a relationship with a more traditional provider with greater resources and availability.

While the number of small clinics did not increase over the study period, the presence of the clinics can be viewed as emblematic of a greater problem in the local safety net. It may be that traditional providers such as hospitals and CHCs were not able to handle the volume of uninsured patients, were not conveniently located, or did not provide a comfortable environment for all patients.

7. School-Based Clinics

All five cities counted at least some school-based clinics, which were typically administered by hospitals, CHCs, or health departments. The clinics were convenient in that they allowed children to receive health services without requiring parents to leave work. The clinics varied in the scope of services provided, but most offered, at a minimum, primary care services. One of the outpatient departments at a children’s hospital used its school-based clinics as a patient recruitment tool. That is, the physicians at the school-based clinics tried to link the children to a primary care provider in the hospital’s outpatient department. Most of the school-based clinics were funded by grants, but many cities were trying to secure Medicaid reimbursement. The Kansas City school district was already a certified Medicaid provider. The number of school-based health centers increased over the study period, and many clinics expanded or were expanding to serve teachers, parents, and members of the community.
C. CONCLUSION

The composition of the safety net and the contributions of different types of safety net providers varied among the studied cities. San Antonio, Oklahoma City, and Kansas City established what could be termed concentrated safety net systems organized around a small number of providers; Columbus and Detroit relied on more dispersed systems. With the exception of a hospital closure in Detroit, the changes that occurred within the safety net systems from 1996 through 1999 were minor. The next chapter describes the capacity of safety net providers, the adequacy of capacity and changes from 1996 through 1999.
III. HOW ADEQUATE IS SAFETY NET CAPACITY?

This chapter discusses the adequacy of safety net capacity—that is, how well providers in the study cities were able to meet the need for safety net services. The chapter also describes changes in safety net provider capacity between 1996 and 1999.

A. MEASURING THE ADEQUACY OF SAFETY NET CAPACITY

A safety net system’s capacity is adequate if the system can meet the health care needs of the uninsured and underinsured. For a safety net system to be fully adequate, services must be comprehensive and delivered in a timely manner for those who present themselves for care. The system should include primary care, specialist care, dental care, mental health care, and pharmacy services. The safety net system must also be accessible and responsive to the care-seeking behaviors of the target populations.

To determine the adequacy of the safety net systems, it is essential to measure both the need for services and the capacity to meet that need. The need for safety net services can be estimated by examining the size and characteristics of the uninsured population, while capacity can be estimated by examining the facilities and staff in place to provide safety net services.

1. Measuring the Need for Services

The task of measuring the need for safety net services in the five study cities proved particularly difficult because we lacked accurate local-level data to assess the size and characteristics of each site’s uninsured population. Even though some states have conducted statewide surveys to measure the uninsured population, the states in the study had not done so. Thus, we examined data from the Current Population Survey (Brown et al. 2000) for all study sites and from the Center for Studying Health System Change (HSC) for the three study cities where the HSC fielded its Community Tracking Study. However, sample sizes in the CPS were
too small to yield accurate measurements of the number of uninsured. Table III.1 presents data for the three cities covered by the HSC study and shows that the rates of uninsured appeared to decline in all three cities, although the changes were not statistically significant.

**TABLE III.1**

PERCENT UNINSURED, 1996 AND 1998

<table>
<thead>
<tr>
<th></th>
<th>1996 Uninsured</th>
<th>95 Percent Confidence Interval</th>
<th>1998 Uninsured</th>
<th>95 Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus</td>
<td>9.1%</td>
<td>6.1% — 11.1%</td>
<td>6.9%</td>
<td>3.9% — 9.9%</td>
</tr>
<tr>
<td>Detroit</td>
<td>10.4%</td>
<td>7.5% — 13.3%</td>
<td>5.6%</td>
<td>2.6% — 8.6%</td>
</tr>
<tr>
<td>San Antonio</td>
<td>18.5%</td>
<td>15.5% — 21.5%</td>
<td>15.4%</td>
<td>12.4% — 18.4%</td>
</tr>
</tbody>
</table>

Source: HSC Community Tracking Study.
Note: Confidence intervals may be understated due to incomplete correction for within-household clustering. Data are for the metropolitan area.

We encountered even more difficulty in measuring the need for safety net services targeted to selected neighborhoods, ethnic groups, or other special populations. Samples in national data sources, such as those mentioned above, are not large enough to estimate the size of selected uninsured groups.

When we asked local providers about the size of the uninsured population—whether the size had changed recently and how such change may have affected the need for their services—we found that they could rarely respond with certainty. Anecdotal speculation was often inconsistent across respondents within a particular community. One person reported no change in the number of uninsured, and others reported increases or decreases. Generally, respondents’ knowledge was based on the number of uninsured patients who actively request services at their organizations.

Faced with this measurement difficulty, we then examined increases or decreases in the number of uninsured people obtaining services at safety net providers (for example, CHCs).
While an increase/decrease is not an accurate measure of need for services, an examination of change, in the absence of other data, yielded at least some information for use in assessing the size of the uninsured population.

For example, when the number of uninsured people served at CHCs rose, we assumed that the increase was attributable to one of three factors: (1) a rising number of uninsured people in the community, (2) organizations filling a formerly unmet need by either expanding capacity or filling previously unused capacity, or (3) a shift of patients from other providers to CHCs. We then used interview data and national data on the uninsured to determine which of the three factors best explained the trend.

Table III.2 shows trends in uninsured and insured CHC users between 1996 and 1999 in the five study cities (the data for Columbus cover 1998 to 1999 only). In four of the five cities, the number of uninsured users remained steady or increased. The exception was Kansas City, where the number of uninsured users declined during the period, while the number of insured users increased.

**a. Rise in the Uninsured**

The first hypothesis is that the increased number of uninsured CHC users was due to an increase in the number of uninsured in the community. Interview data suggested that, in the four cities where the number of uninsured CHC users rose, the increase was, to some extent, the result of an increase in the overall number of uninsured people in those jurisdictions. Respondents attributed the general increase in the uninsured population to a variety of factors. First, at least one respondent each in Columbus, Detroit, Kansas City, and San Antonio said that the increase in uninsured residents was in response to welfare reform and the decoupling of welfare and
TABLE III.2  
TRENDS IN NUMBER OF CHC UNINSURED AND INSURED USERS, 1996–1999

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>—</td>
<td>—</td>
<td>6,319</td>
<td>8,439</td>
</tr>
<tr>
<td>Insured</td>
<td>—</td>
<td>—</td>
<td>5,786</td>
<td>6,352</td>
</tr>
<tr>
<td>Kansas City</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>28,455</td>
<td>29,305</td>
<td>25,126</td>
<td>21,362</td>
</tr>
<tr>
<td>Insured</td>
<td>17,097</td>
<td>19,391</td>
<td>23,584</td>
<td>23,119</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>11,841</td>
<td>14,445</td>
<td>15,128</td>
<td>16,734</td>
</tr>
<tr>
<td>Insured</td>
<td>2,713</td>
<td>3,131</td>
<td>3,622</td>
<td>3,925</td>
</tr>
<tr>
<td>Detroit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>7,815</td>
<td>6,949</td>
<td>9,798</td>
<td>12,168</td>
</tr>
<tr>
<td>Insured</td>
<td>13,816</td>
<td>8,321</td>
<td>8,944</td>
<td>5,719</td>
</tr>
<tr>
<td>San Antonio</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>31,836</td>
<td>37,451</td>
<td>35,582</td>
<td>35,462</td>
</tr>
<tr>
<td>Insured</td>
<td>14,750</td>
<td>14,496</td>
<td>15,917</td>
<td>13,627</td>
</tr>
</tbody>
</table>

Source: Bureau of Primary Health Care’s Uniform Data System.

Medicaid. As people moved from welfare to work, former Medicaid recipients either did not receive health coverage from employers or could not afford it. Second, in two cities we heard of a general decrease in the availability of employer-sponsored health insurance (particularly in Detroit, where coverage has historically been relatively high, and in Oklahoma City, which has relatively few large employers). Finally, we heard that general population growth (especially in San Antonio) was contributing to an increasing number of uninsured residents.

Offsetting the unfavorable trend in insurance coverage were efforts in the study cities to develop special coverage programs for “gap groups.” One such effort was the Voices of Detroit Initiative (VODI), a five-year project sponsored by the Kellogg Foundation and a HRSA Community Access Program grant to enroll, manage, and track up to 27,000 uninsured Detroit
residents under a managed care arrangement called a “virtual” HMO. As of November 2000, VODI had enrolled only about 1,000 uninsured people.

At the national level, the SCHIP expansion extended coverage for children. As of the study period, the implementation of SCHIP had not yet had a major impact on most safety net providers that we visited. In Texas, implementation was slow; the state began taking applications only in May 2000. Providers in Columbus, Oklahoma City, and Detroit also reported that initial enrollment in SCHIP was disappointing; they blamed program design and administration for the low enrollment. For example, one provider in Columbus said that the county had an 86 percent rejection rate for SCHIP applications because of stringent documentation requirements. (Ohio’s SCHIP is a Medicaid expansion with Medicaid documentation requirements.) One CHC in Detroit complained that when staff assisted qualified patients in completing their applications, the enrollees were then assigned elsewhere, even though the CHC was designated as the primary care provider on the application form. However, it is significant that SCHIP expansion reduced the size of the uninsured population in Kansas City, the one place where the number of uninsured users of CHCs decreased.

b. Meeting Unmet Need

The second hypothesis for why the number of uninsured CHC users might have risen (or declined) during the study period is that CHCs began to meet a previously unmet need for safety net services by either expanding available services or filling previously unused capacity. Given that we heard of new and expanded programs to serve immigrant and homeless populations, the expansion of services seemed a plausible explanation for some of the increased utilization. In addition to the increase in medical services targeted to certain populations with unmet need, an increase in some types of special CHC services, such as dental services, also addressed a previously unmet need, drawing into the program uninsured people never before served.
c. Shifts in Patients from One Provider Type to Another

The final hypothesis for the rise in the number of uninsured CHC users during the study period is that other providers in the community met the needs of previously served uninsured CHC users. This explanation does not seem to be as plausible as the others for the simple reason that the safety net systems underwent few structural changes (particularly closures) during the study period. The exception was a Detroit safety net hospital that closed, after which neighboring hospitals reported a tremendous increase in uninsured emergency room visits and experienced overcrowding. Further, the emergency rooms of the affected hospitals closed to ambulance traffic more often than before the study period. Yet, owing to a recent expansion, one neighboring hospital was able to keep pace with the increased volume of patients. In conclusion, the limited evidence suggests that the need for safety net services was stable or increasing the study cities. However, data limitations suggest that any conclusion should be viewed with caution.

2. Measuring the Capacity of the Safety Net Relative to Need

Given that data limitations made it impossible to measure need, we instead measured capacity relative to expressed demand for services. In particular, we relied on “sentinel event” measures of strained capacity as well as on anecdotal reports from interviews. The sentinel event measures took the form of waiting times for ambulatory care services and emergency room use by the uninsured for nonurgent care. In the absence of centralized data sources for these measures, we asked providers to give us their best guess for each measure. Respondents were sometimes able to cite actual data, but they more frequently offered an educated guess.

a. Measuring Capacity by Waiting Times for Ambulatory Care

Table III.3 presents estimates, offered by providers, of waiting times for appointments. The table classifies the information by type of visit: primary care (obstetrics/gynecology, well child,
and adult medicine) or specialty care. It is important to note, however, that we could not be sure that all respondents defined types of visits or waiting times consistently. For example, while we asked about waiting times for appointments for nonurgent care, we cannot say for certain that we received information only for such visits; waiting times could differ for initial and follow-up appointments, though the data do not reflect such a difference.

### TABLE III.3
WAITING TIMES FOR APPOINTMENTS FOR NONURGENT CARE AT AMBULATORY CARE SAFETY NET PROVIDERS
(in weeks)

<table>
<thead>
<tr>
<th>Type of Visit</th>
<th>Columbus</th>
<th>Kansas City</th>
<th>Oklahoma City</th>
<th>Detroit</th>
<th>San Antonio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ob/Gyn</td>
<td>1 - 2</td>
<td>1 - 2</td>
<td>2 - 3</td>
<td>2 - 4</td>
<td>NA</td>
</tr>
<tr>
<td>Pediatric/Well Baby</td>
<td>1 – 2</td>
<td>1 – 2</td>
<td>NA</td>
<td>1 - 4</td>
<td>NA</td>
</tr>
<tr>
<td>Adult Medicine</td>
<td>4 - 6</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>NA</td>
</tr>
<tr>
<td>Specialty Care</td>
<td>“Long”</td>
<td>“Long”</td>
<td>“Long”</td>
<td>6+</td>
<td>6 - 12</td>
</tr>
</tbody>
</table>

Note: Data are for all patients, not just uninsured patients.

As shown in the table, waiting times for primary care were generally shortest for children, followed by ob/gyn visits and then adult medicine. The pattern was consistent with reports from most (but not all) sites; that is, children and pregnant women usually received services quickly, suggesting that service capacity for these populations was generally adequate.

The major influence on capacity was the expansion of Medicaid coverage, which predates the study period. To attract insured groups, several safety net providers had already enhanced their capacity to provide pediatric and ob/gyn services. In some cities, providers viewed Medicaid as one of the best payers. Thus, the promise of additional revenue motivated many providers to serve more uninsured people. Another influence on service expansion was the presence in all five communities of children’s hospitals, which provide a wide array of
ambulatory care services to all children regardless of insurance status. Indeed, some cities appeared to be potentially oversupplied with services for children. Such an oversupply is associated with competition for Medicaid patients.

The situation for adult medicine primary care services and specialty services was much different. At all sites, waiting times for appointments for these services were considerably longer than for child and ob/gyn care. In fact, waiting times for specialty care at hospital outpatient specialty clinics were often expressed in months rather than in weeks.

The reasons for the shortage of free or low-cost adult medicine and specialty services also relate to insurance coverage. Insurance coverage rates for low-income adults were lower than for children and pregnant women, and providers of adult medicine and specialty services may not have had the same opportunities for cross-subsidization from insured patients that were available to pediatric and ob/gyn providers. Except for a few “free clinics,” we did not hear of any specialty providers that actively served the uninsured. Indeed, respondents listed many ways in which specialty care providers attempted to deter uninsured patients from using their services, including requiring up-front payment. Consequently, capacity was most strained in the provision of free or low-cost adult medicine and specialty care.

An important exception to the general pattern of tight capacity for specialty care occurred with the supply of HIV/AIDS services, which involved shorter waiting times for appointments. We heard, however, that obtaining free and low-cost pharmaceuticals was a constant challenge for HIV/AIDS patients and that Ryan White programs devoted considerable resources to helping patients obtain these services.

b. Measuring Capacity by Emergency Room Use for Nonurgent Care

The second type of sentinel event used to assess the adequacy of safety net capacity was emergency room use for nonurgent care. A study of emergency room use in New York by The
Commonwealth Fund found that of emergency departments use by children, only 22 percent of visits involved emergency treatment; the same was true for 26 percent of adults. The study concluded that the lack of adequate primary care causes many people, especially those with low income and no health insurance, to wait longer than they should to seek care. By relying on the emergency department instead of regularly visiting a doctor, patients forgo the benefits of continuity in care and end up using costlier services (Billings et al. 2000). Presumably, if ambulatory care capacity for the uninsured were adequate and accessible, reliance on the emergency room for nonurgent care would be low. But if ambulatory care capacity were inadequate, use of the emergency room for such care would be high.

We asked if the emergency room received heavy patronage for nonurgent care. In view of both a lack of consistent documentation and an absence of a clear definition of primary care or nonurgent care, we concluded that the information we obtained on emergency room use was somewhat speculative. Still, all the study sites reported that the uninsured made heavy use of the emergency room for nonurgent care, suggesting that the capacity of the ambulatory care safety net was strained. On the other hand, if other services were available, they were not easily accessible for some uninsured.

For other reasons, most emergency rooms (both in the study cities during our site visits and across the country) have experienced increasingly strained capacity. General down-sizing of the inpatient care sector has reduced the number of beds to which patients can be admitted for observation. In addition, managed care has spurred a trend away from such “rule-out” admissions, meaning that full work-ups are performed in the emergency room. Further, the nursing shortage has reduced the number of open inpatient hospital beds, so patients awaiting admission may have to wait in the emergency room. Indeed, at one hospital, we saw emergency room halls filled with patients waiting to be admitted to a hospital that was already 99 percent occupied.
Finally, respondents reported that many uninsured people preferred the emergency room as a source of care. This may be true for several reasons. First, under EMTALA (the Emergency Medical Treatment and Active Labor Act), patients cannot be turned away because of a lack of health insurance. At a minimum, they must be evaluated before they are referred elsewhere. Second, the emergency room is open around the clock. These two features mean that a symptomatic patient has more convenient access to care in an emergency room versus most other ambulatory care providers. Finally, many uninsured people seek care from the emergency room because of a historical pattern of care. They continue to use the emergency room because that is where they have always sought care. Some respondents reported that, despite all reasonable attempts to make free or affordable care available elsewhere, some people will always use the emergency room as their first source of care.

c. Capacity as Reported by Respondents

We also asked providers if they felt that capacity was adequate to meet the demand for care and if they had any excess capacity (whether they could see more patients with existing resources). Respondents in all cities reported strained capacity for specialty services (consistent with the information on waiting times reported above). Some respondents said that capacity was strained for dental, behavioral health, and pharmacy services. In selected instances, respondents reported that the capacity to provide general primary care services was also strained, although not to the extent as for specialty services. Table III.4 shows the types of providers reporting strained capacity for primary care.
TABLE III.4
SAFETY NET AMBULATORY CARE PROVIDERS REPORTING STRAINED CAPACITY
FOR PRIMARY CARE (EXCLUDES EMERGENCY ROOMS)

<table>
<thead>
<tr>
<th>Columbus</th>
<th>Kansas City</th>
<th>Oklahoma City</th>
<th>Detroit</th>
<th>San Antonio</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHC</td>
<td>Clinic serving Hispanic population</td>
<td>Clinic serving Hispanic population</td>
<td>CHC</td>
<td>CHC</td>
</tr>
<tr>
<td>Large hospital primary care clinic</td>
<td>Free clinic</td>
<td>Free clinic</td>
<td>Prenatal clinic at major safety net hospital</td>
<td>Public hospital clinic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Health department</td>
<td></td>
</tr>
</tbody>
</table>

In summary, in all case study cities, the safety net’s capacity to meet the expressed demand for most specialty ambulatory care services to the uninsured was strained. In general, it was also strained in terms of providing adult medicine services. The capacity to meet the expressed demand for maternal and child health services was generally adequate in the five study cities. However, there were provider-specific exceptions to this pattern, and we could not conclude that the providers were able to meet all needs for maternal and child health care.

B. CHANGES IN THE CAPACITY OF THE SAFETY NET

All five cities registered both increases and decreases in safety net capacity during the study period (see Table III.5). Most of the changes were relatively minor, although one was major (the closure of Mercy Hospital in Detroit). Table III.5 does not document every change (for example, small decreases in number of staff), but it does document the most notable ones. Most of the changes involved the addition or elimination of care sites. Other changes involved adding or reducing specific services, such as pharmacy services. Overall, taking into account the size of expansions and reductions, we concluded that that safety net capacity apparently contracted somewhat Detroit and Oklahoma City and expanded somewhat in the other three cities.
<table>
<thead>
<tr>
<th>Overall Change in Capacity</th>
<th>Columbus</th>
<th>Detroit</th>
<th>Kansas City</th>
<th>Oklahoma City</th>
<th>San Antonio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expanded</td>
<td>Reduced</td>
<td>Expanded</td>
<td>Reduced</td>
<td>Expanded</td>
</tr>
<tr>
<td><strong>Expansions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Most Notable Expansions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community outreach expanded</td>
<td></td>
<td></td>
<td>School-based clinics expanded</td>
<td>CHCs expanded services, hours, staff</td>
<td>CHC expanded staff, services, and space</td>
</tr>
<tr>
<td>Faith-based nursing expanded</td>
<td></td>
<td></td>
<td>Two CHC sites added</td>
<td>School-based clinics expanded</td>
<td>Five new community clinics opened</td>
</tr>
<tr>
<td>New immunization sites and family planning center opened</td>
<td></td>
<td></td>
<td>Free clinic expanded staff and space</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New hospital family practice center</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reductions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Most Notable Reductions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHC closed</td>
<td>Safety net hospital closed</td>
<td>Hospital program for pregnant substance abusers scaled back</td>
<td>Two dental clinics for uninsured closed temporarily</td>
<td>Clinics in public housing projects closed</td>
<td></td>
</tr>
<tr>
<td>Two hospital pharmacy programs scaled back</td>
<td></td>
<td></td>
<td>Maternal and child health services discontinued at a hospital</td>
<td>Hospital cut wrap-around services (for example, case management, transportation)</td>
<td></td>
</tr>
</tbody>
</table>
1. Increases in Capacity

The study sites increased capacity in three ways: (1) they opened new sites for the uninsured; (2) they expanded services, staff, and hours of operation; or (3) they reconfigured facility space and operational processes.

a. Opening New Sites

One way to increase capacity in a community is to open new sites that are convenient and accessible. Since 1996, Columbus, Detroit, Oklahoma City, and San Antonio have established standalone facilities. The facilities include two free clinics set up by a hospital foundation (San Antonio), a diabetes institute founded by a university hospital (San Antonio), four new clinic sites opened by CHCs (Detroit, Oklahoma City, and San Antonio), and a family practice center opened by a university hospital (Columbus). In addition, in four cities, CHCs or hospitals established new school-based clinics.\(^7\) We also found scattered but related examples of other expansions, such as the addition of medical services for the uninsured at a more specialized health and social service site that was already operating.

b. Expanding Services, Staff, Space, and Hours of Operation

Many CHCs expanded their operations during the study period. Dental, behavioral health, and/or ancillary services (such as laboratory and radiology services) were the most common types of new services (three of the nine CHCs), and several sites expanded regular primary care services. CHCs in four of the five cities provided services during at least some evening and/or

\(^7\)CHCs established school-based clinics in Detroit, Kansas City, and San Antonio; hospitals did so in Detroit, Kansas City, and Oklahoma City.
Saturday hours. Several CHCs expanded or reconfigured their space to increase capacity and added clinical and other staff.

Table III.6 shows changes in staffing for the CHCs during the study period. Staff capacity decreased in only a single category and location—other clinical staff at CHCs in Kansas City. Indeed, the number of staff increased overall by 25 percent across the four cities with data for both 1996 and 1999. CHCs were not the only providers to expand services. Local health departments in two cities did so, and hospitals in Columbus expanded existing community health programs and added new ones. The Columbus health department, for example, increased the number of perinatal visits and the number of women enrolled in its prenatal program, expanded immunizations and home visiting, and, to reflect the shift in groups bearing the burden of HIV, stepped up its outreach efforts to HIV-infected African American women and men. A hospital system in Columbus started a faith-based nursing program in 50 churches and, with other groups, began sponsorship of an eight-week seminar on heart disease that was held repeatedly in black churches and drew more than 1,800 people. Hospitals in Columbus also expanded a program in which a mobile health unit visited teen mothers at schools with the highest teen pregnancy rates. When the van was not used for the teen pregnancy program, it was used to provide urgent care at three high schools and two elementary schools.

In addition, many safety net providers increased their reliance on pharmaceutical company charity programs that provided pharmaceuticals for uninsured patients. These providers—hospitals, CHCs, and other clinics—all explained that they employed administrative staff to help uninsured patients gain access to these programs. That effort, however, covered only certain drugs and certain qualified patients and therefore involved substantial administrative burdens. Further, many of the programs provided only a one- or two-month supply of the required drug(s).
### TABLE III.6

CHANGE IN NUMBER OF FULL-TIME EQUIVALENT (FTE) STAFF IN CHCs BY TYPE OF STAFF, 1996–1999

<table>
<thead>
<tr>
<th>Average Four Sites&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Number of FTE Staff in 1996&lt;sup&gt;a&lt;/sup&gt; (to nearest 0.5)</th>
<th>Percentage Change&lt;sup&gt;b&lt;/sup&gt; (1996–1999)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>17</td>
<td>32%</td>
</tr>
<tr>
<td>Nurses</td>
<td>15</td>
<td>48%</td>
</tr>
<tr>
<td>Other Clinical</td>
<td>40</td>
<td>29%</td>
</tr>
<tr>
<td>Enabling Services</td>
<td>36.5</td>
<td>12%</td>
</tr>
<tr>
<td>Administrative</td>
<td>63</td>
<td>36%</td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Detroit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>7.5</td>
<td>79%</td>
</tr>
<tr>
<td>Nurses</td>
<td>8.5</td>
<td>39%</td>
</tr>
<tr>
<td>Other Clinical</td>
<td>11</td>
<td>74%</td>
</tr>
<tr>
<td>Enabling Services</td>
<td>28</td>
<td>None</td>
</tr>
<tr>
<td>Administrative</td>
<td>32.5</td>
<td>47%</td>
</tr>
<tr>
<td>Total</td>
<td>97.5</td>
<td>40%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oklahoma City</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>7.5</td>
<td>12%</td>
</tr>
<tr>
<td>Nurses</td>
<td>7.5</td>
<td>23%</td>
</tr>
<tr>
<td>Other Clinical</td>
<td>16.5</td>
<td>29%</td>
</tr>
<tr>
<td>Enabling Services</td>
<td>14</td>
<td>18%</td>
</tr>
<tr>
<td>Administrative</td>
<td>34.5</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>San Antonio&lt;sup&gt;d&lt;/sup&gt;</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>22</td>
<td>15%</td>
</tr>
<tr>
<td>Nurses</td>
<td>24</td>
<td>2%</td>
</tr>
<tr>
<td>Other Clinical</td>
<td>47</td>
<td>24%</td>
</tr>
<tr>
<td>Enabling Services</td>
<td>39</td>
<td>8%</td>
</tr>
<tr>
<td>Administrative</td>
<td>90</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>239</td>
<td>24%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kansas City</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>22</td>
<td>22%</td>
</tr>
<tr>
<td>Nurses</td>
<td>10</td>
<td>129%</td>
</tr>
<tr>
<td>Other Clinical</td>
<td>80.5</td>
<td>-10%</td>
</tr>
<tr>
<td>Enabling Services</td>
<td>58</td>
<td>22%</td>
</tr>
<tr>
<td>Administrative</td>
<td>93</td>
<td>46%</td>
</tr>
<tr>
<td>Total</td>
<td>291.5</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: Uniform Data System.

<sup>a</sup> Number of FTE staff in each city is the sum of staff at the CHCs in that city.

<sup>b</sup> Percentage change was calculated as change in the sum of staff in each city.

<sup>c</sup> Columbus was excluded in this trend analysis because there were no data before 1998.

<sup>d</sup> Excludes one center that was missing all data from 1999.
Nevertheless, the programs received heavy patronage and increased safety net providers’ capacity to provide pharmaceutical assistance to uninsured patients.

Finally, safety net providers—including hospital emergency rooms, CHCs, and a hospital—expanded their capacity for serving the uninsured by improving their space configuration and operational processes. A later discussion examines the types of resultant efficiencies and their effect on capacity.

2. Decreases in Capacity

While many safety net providers increased capacity, others decreased in capacity. However, the expansions outnumbered the contractions, which were site- and provider-specific. In other words, the study did not reveal a clear pattern of reductions across sites and types of providers.

The most significant reduction was the closing of a major safety net hospital in Detroit. That closure, the result of financial problems, substantially disrupted the delivery of care to the uninsured. In addition, three other established safety net providers or sites for general medical care closed: a CHC in Columbus, a health department clinic in San Antonio, and a small nonprofit health center in the service area of a CHC in San Antonio. Finally, following the closure of a homeless shelter, one health center shut down a clinic that it operated two nights a week at the shelter.

The other types of decreases in capacity that occurred are noted as follows:

- At the time of our site visit, two dental clinics in Oklahoma City temporarily closed when they could not find dentists.

- Two hospitals in Columbus placed new limits on subsidized pharmacy programs, and a local health department discontinued a pharmacy program in Oklahoma City. The reductions resulted from concerns over the growing cost of providing pharmaceuticals.

- A CHC in Columbus and a hospital in San Antonio cut back on transportation services. The hospitals were experiencing some financial problems, and patients made limited use of the transportation services.
• In Oklahoma City, two sources of maternal and child health care (MCH) closed: an MCH clinic and MCH services at a hospital. Both reductions resulted from financial pressures.

In a few instances, providers expanded service capacity beyond what could be supported by patient volume or available funds. The most notable examples follow:

• A CHC extended clinic hours to attract new patients but found that service use was low during some portion of the extended hours and adjusted its hours to bring capacity in line with the amount of service requested.

• A hospital purchased Medicaid-focused physician practices and opened them to the uninsured, but when the hospital began to have financial deficits, it reduced the volume of service provided to uninsured patients.

• A hospital started several school-based clinics but closed one because of insufficient funds.

3. Effects of Increases and Decreases in Capacity

a. Increases

In assessing the overall impact of increased capacity, we assumed that the increase would have a positive effect if the new capacity were well used (based on volume of services), if discussions with other providers in the area pointed to support for the increase, and if there were no signs of service duplication. For example, in San Antonio, a new free clinic opened near the edge of an existing CHC’s service area. While the new clinic quickly increased its patient load to near capacity, the CHC’s patient load also increased. In Columbus, new immunization sites and a new family practice center were established specifically to serve a large influx of immigrants from Somalia.⁸ If new services were duplicating other services already in place, our discussions should have revealed a shift in safety net providers’ volume.

⁸About 15,000 Somalians were said to have recently immigrated to the area.
The providers we visited during the site visits were sensitive to the importance of carefully locating and targeting new services according to need. For instance, at the time of our visit, several new or planned services were undergoing development either for certain neighborhoods that had been identified as lacking services or for areas where growth in the low-income population had outpaced available services. In San Antonio, for example, a hospital foundation worked with CHCs and other providers to identify appropriate sites for new free clinics.

We identified only two exceptions to the generally positive pattern of matching expansion to need. In one case, an existing CHC expansion appeared to have led to low utilization of the expanded space. We observed low patient activity during regular hours at the site. In the second case, a planned CHC expansion caused tension between the center and the city’s children’s hospital because the CHC was expected to deliver pediatric services for low-income and uninsured children who traditionally received care at sites owned by the hospital. The two providers expected to be in direct competition for Medicaid and SCHIP-eligible patients.

b. Reductions

The effects of reductions in capacity are much more difficult, and in many cases impossible, to discern because respondents often do not know whether or where patients obtain care following a service reduction or a facility closure. The effects and potential effects identified by the study varied widely from site to site, ranging from clearly negative effect to little or no effect.

We developed Table III.7 to guide our assessment of the likely effects of reductions. We ranked the strength of the effect of various reductions from limited to large. A reduction with a limited effect would have the potential to affect only a small number of uninsured people. Such reductions generally affected patients served by one small provider or pertained to a set of services delivered to a small group (for example, patients with an uncommon condition). Conversely, a reduction with a large effect would have the potential to affect a large number of

46
TABLE III.7
LIKELY IMPACTS OF REDUCTIONS IN CAPACITY

<table>
<thead>
<tr>
<th>Impact Unknown&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Limited Impact&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Some Impact</th>
<th>Large Impact&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHC reduced transportation services (Columbus)</td>
<td>HIV services discontinued by local health department (Oklahoma City)</td>
<td>CHC closed (Columbus)</td>
<td>Hospital Closure (Detroit)</td>
</tr>
<tr>
<td>Program for pregnant substance abusers scaled back (Kansas City)</td>
<td>MCH service site closed (Oklahoma City)</td>
<td>Pharmacy programs scaled back (Columbus)</td>
<td></td>
</tr>
<tr>
<td>Local health department discontinued pharmacy services (Oklahoma City)</td>
<td>Small, nonprofit health center closed (San Antonio)</td>
<td>Two dental clinics closed (Oklahoma City)</td>
<td></td>
</tr>
<tr>
<td>MCH discontinued by a hospital (Oklahoma City)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinic co-located with a homeless shelter closed when the shelter closed (Oklahoma City)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital cut wrap-around services (San Antonio)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinics in public housing projects closed (San Antonio)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>We have no knowledge of whether similar services were available in the city for previous users of the reduced services.

<sup>b</sup>Similar resources were available elsewhere in the city without obvious access barriers.

<sup>c</sup>Evidence of access strains or barriers following the reduction.

uninsured people—for example, patients served by a large provider—or would pertain to a set of services delivered to a large group. Though the limited-to-large continuum provides for an unsophisticated classification system, it nonetheless offers some insight into the effects of reductions relative to one another. Still, we could not make complete judgments regarding the systematic effects of reductions on the capacity of safety net providers. Some reductions, such as staff reductions, could, in fact, lead to a more efficient use of resources.

As mentioned earlier, the reduction with the potential to have had the largest effect on the safety net was the closure of Mercy Hospital in Detroit. The hospital, located in a poor area of the city, ran three outpatient clinics and an inordinately large emergency department and served a
large number of uninsured patients. In 1997, Mercy Hospital served more than 10,000 uninsured patients. Over the last 10 years, the hospital lost more than $100 million and was projected to lose $20 million per year if it remained open.

The remaining reductions in capacity had the potential to exert moderate or limited effects. Included in the moderate category were reductions in pharmacy services in one city and the closure of dental services at two sites in another city. Included in the limited-effects category was one hospital’s reduction in wrap-around services; the hospital served many Medicaid patients but few uninsured.

In addition to knowing, even in a crude way, the potential size of the effects of a reduction, we were often able to learn indirectly about the effects of reductions on access simply by asking respondents from potentially affected organizations whether they observed access constraints after the reduction. In some cases, respondents did not know whether a reduction created new access barriers for the former patients. For example, the local health department in San Antonio closed health clinic services in public housing projects when the projects were shut down. The families that lived in the projects and used the clinic were offered housing in dispersed locations throughout the city, mostly outside the inner city. Given that many services geared toward low-income families are located in the inner city, the health department was concerned about the families’ access to care after the closure but had no way to determine whether access problems arose.

In situations where there was no empirical evidence of the effects of a reduction, we can still speculate about the potential effect of a reduction. For example, within our study, the Mercy Hospital closure was likely to have had the largest effect on capacity. We heard that the emergency room caseload at a neighboring hospital increased by 40 percent after Mercy closed and that, without Mercy’s free clinics, primary care options for the uninsured decreased substantially. At the other end of the spectrum, the termination of HIV services by the local
The health department in Oklahoma City appears to have had a limited effect. The health department eliminated the services because the university hospital system was providing more comprehensive care for HIV patients, and the health department believed that the discontinuation would be in the best interests of its patients.

It is important to note that the timing of any investigation into changes in capacity is itself a factor in determining the effects of changes. For example, the effects of the Mercy Hospital closure (year-end 1999), while large during the study period, might be mitigated in the future if other providers expand their services to meet the demand from former Mercy patients (although we cannot assume that such events will unfold). Similarly, a CHC in Columbus closed in 1996, though only for a short time. Had we visited the site just after it closed, we would have found severely scaled-back services. But, by the time we visited the site, many services had been reinstated. The clinic of today therefore looks much as it did before its temporary closure.

C. SUMMARY OF KEY FINDINGS

Because of limitations in the study’s data sources, we were unable to develop comprehensive city-level estimates of the need for, or changes in the need for, safety net services; thus, it was impossible to quantify the capacity of safety net providers relative to needs. However, this is not to say that we cannot draw some conclusions. Our quantitative data, along with information we obtained during site visits, suggest that safety net capacity in two of the five cities (Detroit and Oklahoma City) decreased. In Detroit, the decrease was substantial because a hospital closed. This event disrupted care for the uninsured and created ripple effects on neighboring providers. In Oklahoma City, clinics and the health department accounted for several small reductions in capacity.

In contrast, safety net providers in three other cities (Columbus, Kansas City, and San Antonio) generally expanded capacity during the study period—both to meet rising demand
brought about by the increasing numbers of uninsured and to begin responding to the unmet needs of the uninsured in their cities. Regardless of the changes made in all sites, we still observed a gap between the demand for and the supply of safety net services, particularly for certain subpopulations and services.
IV. PUBLIC POLICIES AND OTHER FACTORS SUPPORTING AND UNDERMINING SAFETY NET CAPACITY

To better understand the strength and stability of the local safety net systems, one of the objectives of this study was to identify major public policies and other factors that affect net capacity. We constructed the following three categories to organize the major factors that support or undermine the capacity of safety net providers to serve low-income uninsured people: (1) public policies affecting financial resources, (2) safety net operations and infrastructure, and (3) collaboration among safety net providers citywide. While we intended to investigate a broader range of public policies, we found that our respondents were best able to discuss those that affect safety net providers’ financial status.

A. PUBLIC POLICIES AFFECTING FINANCIAL RESOURCES

The availability of financial resources was the most crucial factor in a safety net provider’s ability to build and sustain capacity for serving the low-income uninsured. Major sources of revenue included Medicaid, state and local public funding, and grant funding. For hospitals in particular, Medicare was an important payer. Later discussions examine these revenue sources and how they changed, if at all, over the study period.

1. Medicaid

Medicaid managed care reimbursement, Medicaid eligibility and enrollment, and Medicaid DSH funding affected the financial resources of safety net providers. Table IV.1 shows the percentage of CHC revenue from Medicaid and other sources for the four cities for which we had data. Medicaid represented 19 to 30 percent of CHCs’ revenue in 1999, a higher proportion than in 1996.
## TABLE IV.1
PERCENTAGE OF CHC REVENUES FROM VARIOUS SOURCES,
1996 AND 1999

<table>
<thead>
<tr>
<th>Sites</th>
<th>Medicaid</th>
<th>Other Insurance</th>
<th>HRSA Bureau of Primary Health Care</th>
<th>Local Public Funding</th>
<th>Other Sources&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Total Revenue (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detroit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>21.3</td>
<td>12.0</td>
<td>22.1</td>
<td>11.6</td>
<td>33.0</td>
<td>$4.1</td>
</tr>
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<td>1999</td>
<td>29.9</td>
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<td>1996</td>
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<td>2.5</td>
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<td>1996</td>
<td>23.4</td>
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<td>0.9</td>
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<td>1999</td>
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<td>31.6</td>
<td>0.8</td>
<td>32.8</td>
<td>$13.5</td>
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</table>

Note: Total revenue figures for 1999 were adjusted by using the Medicare Economic Index (MEI) to 1996 dollars. The MEI tracks growth in physician office expenses nationally, including physician wages and compensation, nonphysician wages and compensation, malpractice insurance, medical equipment and supplies, and other office expenses. The 1999 total revenue figures were divided by 1.061, using the MEI to account for these practice expense trends since 1996 (Standard and Poor’s 2000). Data for Columbus is not included because of incomplete data for 1996. CHC revenues from SCHIP are included in the Medicaid column, as SCHIP in all four states is a Medicaid expansion.

<sup>a</sup>Other sources include federal grants (for example, Ryan White), state funding, grants from foundations, self-pay, and nonpatient-related revenue not reported elsewhere.
a. Medicaid Managed Care Reimbursement

Lower payment rates under Medicaid managed care relative to fee-for-service care was an acute issue for the safety net hospitals. The following examples, each from a different city, illustrate how payment rates affected capacity.

Some safety net providers tried to form their own HMOs in order to retain patients and dollars under managed care. However, this was not always successful. For example, one safety net hospital joined with a children’s hospital to create its own HMO. While the arrangement seemed to work well for the children’s hospital, the general hospital found that it did not have enough adults in the HMO to generate enough revenue for itself and its clinics. The hospital, therefore, was reconsidering its role as an HMO owner. And Medicaid managed care was one of several factors that motivated the hospital to begin looking for programs to cut in the face of overall financial difficulties.

Providers we visited also struggled to develop acceptable payment rates for services. One hospital explained that its Medicaid managed care contract yielded losses of $7 million to $8 million in the nine months before the hospital stopped accepting Medicaid patients. In this state, certain high-cost patients, such as HIV patients, are not exempt from capitation, a policy which hospital representatives indicated was a factor in their high costs. Another hospital described how it had to use “brinksmanship” tactics to elicit Medicaid rates that it could afford to accept. It had recently “quit” a health plan because of disputes over reimbursement. However, the hospital and the plan renegotiated a contract at a rate acceptable to the hospital.

9In keeping with the focus of the study, we discuss only those public policies that have an effect on safety net providers’ capacity. Our methodology was not designed to provide a full assessment of the effects of Medicaid managed care programs.
Low Medicaid managed care payments were less of an issue for CHCs and the other
community clinics we visited. CHCs in general were protected by cost-based payments or
benefited from enhanced fee-for-service payments. In addition, Medicaid managed care was not
the major revenue source for CHCs. Revenues from Medicaid managed care had a relatively
small impact in that not all patients were enrolled in capitated plans. Indeed, Medicaid managed
care enrollees constituted only a small portion (8 percent to 11 percent) of total users at CHCs
(see Table IV.2). While the same data were not available for hospitals, we suspect that Medicaid
accounted for a larger percentage of outpatient users at several of the hospitals we visited.

CHCs in Oklahoma City were in the most difficult financial situation with respect to
Medicaid managed care. Some of their Medicaid managed care contracts had shifted from fee-
for-service payments to capitated payments despite the CHCs’ protests. In contrast to several
other cities, they were not protected by cost-based reimbursement, although they did receive a
progressively smaller supplemental per member per month “transition payment” each year.

All types of safety net providers faced a heavy administrative burden as a result of Medicaid
managed care. In response, several providers had to increase staffing to meet managed care’s
administrative demands, such as the requirement to obtain authorizations for specialty referrals
and to verify an enrollee’s primary care provider. Other administrative tasks involved additional
work associated with overturning payment denials. One hospital said that billing coders had
become as valuable as nurses. Providers found themselves allocating resources to the
performance of complex administrative tasks rather than to patient care or the support of patient
care.
For many safety net providers, patient volume initially dropped following the introduction of Medicaid managed care. But, for most providers, volume recovered at least partially, and was no longer viewed as a major issue. The initial drop in volume occurred, we were told, because providers that had not traditionally served Medicaid patients became available under Medicaid managed care. In addition, we heard that initial automatic assignments or inadvertent paperwork errors meant that patients had to seek care from providers other than their traditional provider. Furthermore, because providers in many areas viewed Medicaid as a good payer for obstetrics, some safety net hospitals reported a decline in obstetrical patients as other hospitals began competing for the same patients. Many safety net providers therefore stepped up efforts to enroll eligible, uninsured obstetrical patients in Medicaid. While the providers’ Medicaid volume rose as a result of those efforts, several reported that they had not reached the same level as before implementation of managed care.

Even though patient volume for primary care services such as immunizations and well-child visits reportedly declined at local health departments in four of the five cities, health department
officials suspected that former Medicaid patients were receiving similar services from their new managed care primary care providers. However, the officials did not have the ability to track the former patients and confirm their assumptions.

As an exception to the patterns noted above, some providers benefited from Medicaid managed care and saw caseloads rise. For example, one CHC gained Medicaid patients as a result of forming its own HMO, and another CHC gained patients because of its state’s automatic assignment policy. A safety net hospital reported gaining Medicaid patients because other hospitals outside the city had withdrawn from health plan provider networks. Success in attracting and retaining Medicaid managed care enrollees generated additional financial resources to support service to the uninsured.

In addition, safety net providers mentioned the following ways in which Medicaid managed care helped their capacity to serve the uninsured:

- In Columbus, Medicaid managed care was a major impetus for bringing together seven small health centers funded by the local health department to form a CHC. The providers wanted to position themselves more favorably to compete for Medicaid patients. Compared with the original set of centers, the new CHC increased capacity for serving the uninsured through expanded revenues and services.

- The prospect of Medicaid managed care strongly motivated a public hospital to open new outpatient clinics in three low-income areas, bringing new capacity for serving the uninsured into those neighborhoods. The hospital hoped that the new outpatient clinics would help attract and retain Medicaid patients.

- Medicaid managed care implementation in one city was said to have reduced the number of uninsured, because the publicity and outreach efforts increased both community awareness of Medicaid and the convenience of enrolling in the program.

b. Medicaid Enrollment

To finance the care they provide, safety net providers in all five cities made efforts to enroll uninsured patients in Medicaid and other programs, including SCHIP and local health insurance programs. However, respondents asserted that their Medicaid programs often made it difficult for beneficiaries to enroll and remain enrolled. We heard reports that states conducted
little outreach and that some established extremely difficult enrollment processes. In two instances, the enrollment process was even described as “degrading” and “dehumanizing.” Reportedly, efforts were under way in these states to improve enrollment processes.

Examples of stepped-up efforts to enroll the uninsured in health insurance programs include:

- A major safety net hospital switched to new vendors for assistance in enrolling patients in Medicaid. The new contractors led patients through the application process more effectively.

- One of the children’s hospitals provided funding for a bilingual former priest to provide outreach and education at churches on how to enroll in Medicaid.

- A CHC had recently set up an electronic enrollment system at its facility for Medicaid and SCHIP. With the help of a state employee, the CHC was able to help patients fill out the paperwork before forwarding the applications to the state. Because the state employee was on site, the CHC could follow up to find out if its patients were appropriately enrolled.

- A safety net hospital set up a financial counseling center where counselors worked with patients to see if they qualified for Medicaid or SCHIP. Previously, the hospital relied on state employees to conduct outreach and enrollment, and many patients were not getting enrolled.

c. Medicaid Disproportionate Share Hospital Funding

Medicaid DSH funding was an important source of revenue for the safety net hospitals we visited. Table IV.3 shows total Medicaid DSH funds (in millions of dollars) for hospitals in each of the study cities.

For all the cities, the most recent year of data showed at least some drop in Medicaid DSH funding from the preceding year. Hospitals attributed their financial difficulties partly to the decline in Medicaid DSH funding. Further, hospitals’ decline in funding was often exacerbated by other financial difficulties, such as reductions in Medicare revenues due to the Balanced Budget Act (BBA). For example, the CFO at one major safety net hospital said that while
TABLE IV.3
MEDICAID DISPROPORTIONATE SHARE HOSPITAL FUNDING, 1996-2000
(in millions of dollars)

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<tbody>
<tr>
<td>Columbus&lt;sup&gt;a&lt;/sup&gt;</td>
<td>NA</td>
<td>NA</td>
<td>46.4</td>
<td>39.1</td>
<td>NA</td>
</tr>
<tr>
<td>Detroit&lt;sup&gt;b&lt;/sup&gt;</td>
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<td>NA</td>
<td>36.7</td>
<td>37.6</td>
<td>37.1</td>
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<td>81.3</td>
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<td>19.4</td>
<td>18.7</td>
<td>NA</td>
</tr>
<tr>
<td>San Antonio&lt;sup&gt;a&lt;/sup&gt;</td>
<td>62.4</td>
<td>59.9</td>
<td>77.2</td>
<td>65.9</td>
<td>58.3</td>
</tr>
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</table>

Source: State departments of health or Medicaid agencies.

<sup>a</sup>Net of assessment/transfers.

<sup>b</sup>Does not include special indigent payments funded through Medicaid DSH, which totaled $44 million in 1999 because we do not have comparable figures for other years.

NA = Not available.

several factors contributed to the hospital’s poor financial situation, the reduction in Medicaid DSH funding represented the biggest “hit.” To alleviate its financial problems, the hospital was considering staff cuts or a reduction in wrap-around services, such as transportation, translation, or social work services.

Reduced Medicaid DSH funding also coincided with increases in hospital uncompensated care (see Table IV.4). Hospitals in four cities for which we had adequate data generally experienced steady increases in bad debt and charity costs. (The one exception was Kansas City, where the trend was reversed.) So, when the hospitals needed funding for care of the uninsured and of other populations (often Medicaid) whose insurance did not pay the full cost of care, Medicaid DSH, which had been one of the major subsidies for covering such costs, was shrinking.
TABLE IV.4
TRENDS IN UNCOMPENSATED HOSPITAL CARE
1996–1999
(in millions of dollars)

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<td>77.5</td>
<td>83.8</td>
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<td>Detroit</td>
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<td>111.4</td>
<td>108.1</td>
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<tr>
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<td>NA</td>
<td>133.2</td>
<td>168.7</td>
<td>191.1</td>
</tr>
</tbody>
</table>

Source: State health departments, except for the Detroit data, provided by the Michigan Health and Hospital Association, and the 1996 data for Columbus, which derived from the Lewin Group’s analysis of state-provided data.

Note: Data are bad debt plus charity care costs for general and children’s hospitals in each city, except that Columbus data are reported as “uncompensated care cost for the uninsured.” Hospital-specific cost-to-charge ratios were applied to charity care and bad debt charges; the resulting cost figures were summed for each city. The table excludes hospitals with one or more years of missing data. Oklahoma City is not included because data was only available for two hospitals for all years.

NA = Not available

2. City, County, and State Funding

a. Local Public Funding

Local funding was an important source of revenue for many safety net providers. In each site except Oklahoma City, city or county governments subsidized general medical care for the uninsured beyond funding for local health department services. In general, local financial support held steady or grew slightly during the study period. However, without knowing the number of uninsured in each city, it is difficult to interpret the amount spent by local governments relative to the need for such funding.

Table IV.5 shows the trend in the level of local public funding for CHCs per uninsured CHC user as reported by CHCs between 1996 and 1999. These data, along with our on-site interviews, suggest that local governments’ allocation of funding for CHCs varied widely. For
TABLE IV.5
TRENDS IN LOCAL PUBLIC FUNDING FOR CHCs, PER CHC USER, 1996–1999

<table>
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<tr>
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<td>$8</td>
<td>$10</td>
</tr>
<tr>
<td>San Antonio</td>
<td>$3</td>
<td>$3</td>
<td>$7</td>
<td>$3</td>
</tr>
</tbody>
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Note: The local public funds that went to the CHCs through special programs for the uninsured in Detroit and San Antonio were not likely to be reflected in the data.

example, in Columbus, local funds for the safety net went in large part to CHCs, whereas in San Antonio, where the local funding share was small, most funding went to the major safety net hospital system.

Local governments provided funding in various ways, for example, through direct subsidies to providers as well as other initiatives that supported the uninsured. Figure IV.1 summarizes the study cities’ approaches to financial support for the safety net. Each approach had limitations. For example, some respondents criticized the quasi-health insurance mechanisms for the uninsured in San Antonio and Detroit for appearing more effective than they were, given that provider reimbursement rates were very low and the programs did not reach many uninsured people. On the other hand, direct subsidies to primary care providers, such as public health clinics, did not help cover specialty or hospital care for the uninsured.
FIGURE IV.1

STUDY SITE APPROACHES TO FINANCIAL SUPPORT FOR THE UNINSURED

*Columbus.* The city of Columbus supported the CHC with $5 million to $6 million per year through a contract with the local health department. This funding replaced the funding that the city previously provided for seven individual health centers before the new CHC was created in 1999.

*Detroit.* Wayne County, Michigan, the county in which Detroit is located, contributed $15 million per year for two indigent care programs (state and federal funds provided additional support). Such program funding totaled $44 million per year from 1997 through the balance of the study period. PlusCare was a county program for residents ages 18 to 64 with very low incomes (less than $513 per month). Enrollees joined a participating HMO, with payment rates reported to be below Medicaid rates. At the time of our visit, the program counted approximately 32,000 enrollees. HealthChoice was a similar program for the working poor. The county, state, and federal government (through Medicaid DSH) paid one-third of the cost of premiums; the employer paid one-third; and the individual paid one-third. The program supported 20,000 enrollees in 2000. In addition, the local health department—which, in Detroit, provides a relatively high level of general primary care for the uninsured—received a local government subsidy of $3 million per year for primary care.

*Kansas City.* Kansas City supported indigent care through a city health levy tax and city general funds. The levy tax was $0.05 per $1,000 of assessed property value. In 1999, the public hospital received about 84 percent of the $33.1 million collected from these revenue sources. Health centers received $1.6 million. Total funding from these sources increased slightly during the study period (5 percent) because of the increasing pool of dollars that became available through the levy as property values rose.

*Oklahoma City.* The city and county governments in Oklahoma City supported the local health department but did not provide funding for other general medical support to the uninsured.

*San Antonio.* Bexar County, Texas, the county in which San Antonio is located, provided approximately $85 million in indigent care funding from 1998 to 2000 to fund a payment program (not an insurance program) for indigent care called CareLink. The university hospital system both funded the program and provided care. Total CareLink enrollment remained roughly steady from program inception through the study period, ranging from 65,000 to 73,000. The program covered most types of care within the hospital system (including pharmaceuticals and primary, specialty, and inpatient care), but it also strongly emphasized personal financial responsibility. When Bexar County residents signed up for CareLink, they were assigned a maximum monthly payment amount per family. When they needed care, they would come to the university hospital system or to one of the contracted CHCs and were billed for the cost of that care (at Medicaid rates) on a monthly schedule up to their family maximum amount, for a period of up to four years. Family maximum amounts were very low for the poorest residents but climbed to significant amounts for working-poor families. Enrollees were dropped from the program if they did not pay their obligation. Enrollment at the time of our visit was said to be about the maximum that the current funding could support. About $300,000 of the CareLink funds were reported to be paid to the CHCs that contracted with the hospital system under the program.
b. State Funding

State funding through grants or direct subsidies was important to some safety net providers but generally less important than city and county funding. For example:

- A hospital in Columbus cited state grants (along with its own foundation) as the largest source of funding for a set of community programs targeted to low-income populations.
- A CHC received grant funding from the state of Michigan through the Southeastern Michigan Health Association; this funding, which remained steady over the study period, supported capital improvements as well as services.
- A CHC in San Antonio received $250,000 annually in funds from a Community Oriented Primary Care grant that helped subsidize a sliding-fee scale and prescription drugs.
- A CHC in San Antonio recently received a $350,000 (one-time) grant from the state’s Telecom Infrastructure Fund for system improvements (for example, Internet access, e-mail, new computers).

3. Federal Program Grants and Funding

Grants from HRSA were a major source of funding for many of the providers we visited, particularly CHCs. Table IV.1 shows that HRSA funds accounted for a substantial portion of CHC revenues (from 20 percent to just over 40 percent in the four cities with data). During our interviews, we heard that Bureau of Primary Health Care (BPHC) grants to CHCs increased in real dollar terms, though not as much as other revenue sources (such as Medicaid), from 1996 to 1999. The UDS data confirmed the reports, although not all centers received increases.

Other HRSA grants were important for other safety net providers, in particular children’s hospitals, which often received Title V funding or Healthy Start funding or both. HRSA Ryan White funding for HIV/AIDS services was critical to providers of HIV/AIDS services in sustaining and expanding their capacity over the study period. For example, one clinic serving people with HIV/AIDS used an increase in Title III Ryan White money to fund a doctor, a nurse
practitioner, and an additional nurse. This allowed the clinic to double the clinical services it provided to the uninsured HIV/AIDS population.

Beyond this direct funding, HRSA played an important role in preserving threatened capacity during the study period. The agency identified serious operational and financial problems at several CHC grantees. Rather than withdrawing grant funding, however, HRSA worked with the CHCs and others in the community to develop a new arrangement to sustain services and help remedy problems. At the time of our visit, the CHCs in question reported that they emerged stronger and appreciated the time HRSA allowed them to reorganize and overcome their problems.

In addition to HRSA funding, other federal grants to safety net providers represented important sources of support. For example, the Substance Abuse and Mental Health Services Administration (SAMHSA) awarded a grant to a free clinic in Kansas City to integrate substance abuse prevention services with HIV prevention services. Another example is the Racial and Ethnic Approaches to Community Health (REACH) program, funded by the Centers for Disease Control. In both Kansas City and Detroit, providers used REACH funds to focus on the delivery of improved health services to minorities.

4. Medicare

Hospital respondents almost universally cited the Balanced Budget Act of 1997, which cut the Medicare program, as hurting their financial status. Many of the affected hospitals were large teaching hospitals. Beyond the general Medicare cuts that affected all hospitals, teaching hospitals faced significant drops in graduate medical education funding. At the time of our site visits, the hospitals had not had time to benefit from the new injection of federal dollars designed to offset the BBA cuts.
5. Private Foundation Grants and Funding

In addition to the public policies that affect safety net providers’ revenues, in two cities, the creation of charitable foundations from the sale of non-profit facilities resulted in substantial safety net initiatives. The Columbus Medical Association Foundation, which was created by a physician-owned HMO and derived most of its funds from the sale of that HMO, aimed to improve access, health education, and health promotion. As part of an initiative to improve access to prescription drugs, the foundation awarded a $650,000 grant to a group of safety net providers charged with formulating a plan for how prescription drugs could be more efficiently distributed to the uninsured. The foundation also funded Spanish translation services at a CHC and a free clinic.

The Methodist Hospital Ministries Foundation in San Antonio, which was created from the merger of local hospitals, provided funding to established safety net providers and operated two free primary care clinics that served only the uninsured. Funding to the CHCs totaled about $1.4 million in 2000 (the only year data were available) for primary care, dental services, mental health, and case management. The funding level was based on information the CHCs provided to the foundation on the number of uninsured patients. The foundation paid the CHCs on a per-patient basis.

Foundations sponsored several other safety net initiatives. Detroit received two large grants from the W.K. Kellogg Foundation. The first grant enabled the major hospitals to establish the Voices of Detroit Initiative. The second grant, a Community Voices grant, helped establish the Voices of Detroit Center for Research to Reduce Disparities in Oral Health.

Other foundations supported special efforts. For example, the public hospital in Kansas City received funding from three local foundations to support capital campaigns (for example, a new
building) and niche efforts such as staff development. One CHC in Detroit received a grant to address domestic violence.

6. Tobacco Settlement Funds

Most of the providers we interviewed had not received substantial benefit from the tobacco settlement, though a few had. In San Antonio, the university hospital system (the dominant safety net hospital system) received $20 million in tobacco settlement funds, to be spent over 10 years at the rate of $2 million per year. With the first funding installment, the hospital established a health and prevention division for health education, diabetes work, and community-level prevention programs. The San Antonio health department also received some tobacco money ($750,000 for two years) for women’s health and a diabetes program.

In Oklahoma, the funds were used to phase in an increase in both managed care and fee-for-service Medicaid payments, though safety net providers in Oklahoma City had not yet realized any benefit from the increase. In Kansas City, the tobacco dollars had not yet been allocated because of legal issues, and in Detroit, the only mention of tobacco funding was a small grant to a CHC to support dental health services.

7. Overall Financial Status

The overall financial status of key safety net providers varied by type of provider. The CHCs we visited were surviving. They faced financial challenges each year but reported that they had generally been able to meet these challenges. In addition, they were taking steps to improve their financial status further by increasing revenues. Most often, CHCs sought to increase revenues in three ways: (1) by stepping up their efforts to obtain grant funding, (2) by improving their systems for collecting patient fees, and (3) by better leveraging various funding sources and insurance options for uninsured patients. In the case of the third strategy, CHCs made an effort to enroll beneficiaries in Medicaid or SCHIP and to increase participation in
pharmaceutical companies’ charity programs. CHCs’ efforts augured well for their ability to maintain and expand capacity.

In contrast to CHCs, we discovered that, in all five cities, several important safety net hospitals faced serious financial difficulties. Asking respondents whether they had turned to reserves to cover losses and how much remained in their reserves (or looking in local press reports for such mentions) proved useful in understanding the degree of financial stress facing a hospital. While the institutions covered some losses with their financial reserves, which were not yet near depletion, they could not rely on their reserves indefinitely.

B. SAFETY NET OPERATIONS AND INFRASTRUCTURE

In addition to financial resources, a safety net provider’s own operations and infrastructure can support or undermine its capacity for serving the uninsured. Operating efficiency, management, staffing, and information systems all contribute to the strength of operations and infrastructure.

1. Efficiency

During the study period, safety net providers had concentrated more heavily than ever before on operating efficiencies. Their goal was to reduce costs while sustaining and better managing service volume to increase capacity. For example, many safety net providers tried to expand capacity by improving patient flow. Some hospitals set up fast-track clinics adjacent to their emergency rooms so that emergency room patients presenting without urgent conditions (those most often uninsured) could be shifted to outpatient clinics for rapid treatment. The ability to move patients through the emergency room quickly translated into expanded capacity to serve additional patients. In one hospital emergency room, the shift to a fast-track clinic reportedly reduced patient waiting time by 300 percent.
A respondent at a pediatric clinic that had recently moved from a public hospital to a private nonprofit hospital explained that the clinic was seeing the same number of patients in less time than under the former arrangement. The respondent said that the decentralization of control over management and operations enabled the clinic to improve efficiency and move toward its goal of seeing 18 percent more patients.

Several CHCs expanded the number of examination rooms per physician. The centers believed that the change in space configuration would allow the same number of physicians to see more patients. In addition, a public hospital was testing a redesign of its outpatient clinic operations. Staff hoped that the new design would reduce appointment waiting times and per-patients costs. The new design called for the following: training staff in customer service practices (some staff attended a seminar at Walt Disney World), testing a new registration and billing system, and adding a social worker and clerical staff. The hospital planned to evaluate the new clinic’s performance before deciding when and how to implement the changes on a broader scale.

2. Management

In several instances, we heard that poor management of safety net provider operations threatened an organization’s capacity to serve the uninsured and that strong management could enhance capacity. Obviously, a provider with a tradition of strong management can better attract adequate financing to support care for the uninsured, reconfigure resources and systems to improve efficiency, and resolve staffing issues.

Several safety net providers we visited during the study had nearly been forced to close, we were told, largely because of poor management. In each case, a new management team already in place by the time of our visit pointed to numerous improvements in operations that averted closure. As reported, the providers sustained or improved capacity for serving the uninsured.
We also observed a shift in the self-described management style of many health centers and hospitals. These institutions adopted a stronger focus on the business aspects of health care, for example, an insistence that patients pay their fees. The change in style involved the implementation of various strategies, including the use of outside consultants to retrain clerical staff in billing practices. Some organizations reported large increases in the fees collected from patients; others reported stepping up their collection efforts without turning away those who did not comply with payment rules. A more business-like approach may positively affect an organization’s capacity to serve the uninsured, but it also raises questions about whether volume will decrease if upgraded management practices affect uninsured individuals’ motivation to seek care. For example, the largest free clinic we visited during the study noted that many of its patients did not want to return to providers they owed money to because they knew they would be asked for the fees.

3. Staffing

Recruiting and retaining staff at all levels was a constant struggle for many safety net organizations. At the time of our visit, several providers faced a tight labor market for both low-wage and professional staff (especially nurses), particularly because nonprofit safety net organizations typically paid lower salaries than larger for-profit organizations.

Many providers said that nursing shortages made it difficult to recruit and retain nurses. As a result, the providers had to increase nurses’ salaries (and some offered signing bonuses) to compete with nonsafety net organizations. One CHC said that, in order to recruit more nurses, it acted as a placement site for nursing schools (nurses rotated through the CHC during their last year of school). One hospital was considering recruiting nurses from the Philippines. In addition, we heard that two organizations were replacing registered nurses with licensed practical
nurses or nurses’ assistants in order to maintain capacity. Safety net providers did not appear to have as much difficulty in recruiting physicians.

Some safety net providers also experienced difficulty in attracting and retaining support personnel. We learned that the unemployment rate in Kansas City was approximately 2 percent at the time of our visit. CHCs and hospitals in Kansas City faced challenges in recruiting support staff once nearby casino boats, which hired many low-wage workers, began operation. Safety net organizations were also struggling to find staff who could communicate effectively with patients; more specifically, many organizations had difficulty recruiting bilingual staff. One organization worked around the language barrier by purchasing a mobile interpreter device with a speaker phone that allows an off-site interpreter to translate.

Despite the various difficulties and challenges, most of the struggles we heard about neither prevented safety net providers from expanding their services nor forced them to reduce services. One exception was two dental clinics that served the uninsured but had to close because of a shortage of dentists willing to provide care. The other exception was a hospital that had to divert ambulance traffic because of an inpatient nursing shortage. The hospital’s emergency room was backed up with patients waiting to be admitted.

Some providers found themselves facing a unique opportunity to recruit staff from other provider organizations that had closed. For example, one CHC reported that it had no problems recruiting physicians following a local hospital’s closure. Another CHC said that it recruited the former staff of HMOs that no longer provided Medicaid services because the staff was experienced with Medicaid managed care.

4. Information Systems

Effective information systems are essential to improved efficiency and expanded capacity. Thus, in addition to focusing on improving management, many organizations were devoting
considerable effort to upgrading their information technology systems (five of the nine CHCs reported new information systems; one major safety net hospital was testing a new system). In general, organizations that take a business-like approach to other aspects of management are the organizations that operate advanced information systems.

Changing systems is not easy. For example, one CHC spent $400,000 in 1998 to replace its 17-year-old information system. Later that year, a new management team decided that the new system could not handle the Y2K update or track costs by department, making it more difficult to collect the $650,000 it was owed in Medicaid reimbursements. The center lacked the data it needed to respond to Medicaid officials’ questions for 1997 or earlier. Consequently, the CHC installed another system (at a cost of $300,000), but that system required the reregistration of even established patients when they came in for a visit, an additional administrative burden for center staff. In addition, changing systems sometimes causes problems in generating reports. CHC staff mentioned above that installing the new system affected its UDS data by making the information unreliable in the year of the change.

The cost of new information systems can strain providers’ finances. Two CHCs reported that they obtained grants to cover much of the cost of their new systems. For example, one received grants from the state Telecom Infrastructure Fund, a local foundation, and the county to upgrade its computers and obtain Internet and telemedicine connections. This CHC, which described its management information system as “state of the art,” supported information systems at three other CHCs in the area.

C. LINKAGES AND COLLABORATIONS AMONG SAFETY NET PROVIDERS

Many safety net providers recognized the importance of collaboration, and some had taken small steps to connect with each other to improve the availability and efficiency of services. The most common linkages were referral arrangements and arrangements to share residents and
physicians. For example, one CHC in Detroit had entered into an arrangement with a local hospital in which the hospital accepted into its outpatient department all of the CHC’s uninsured patients in need of specialty care. In addition, safety net providers in four of the five cities had organized networks that permitted the providers to discuss service to the uninsured and to develop a strategy for a more effective community safety net. The networks’ goals ranged from lobbying for additional public funding to developing a virtual HMO to cover uninsured individuals.

The extent to which safety net providers were committed to collaborative efforts and to local networks varied across sites. Linkages appeared strongest when there were financial incentives for collaboration. For example, the Columbus Medical Association Foundation provided significant funding for collaborative efforts to strengthen the safety net. The foundation founded and supported Access Health Columbus, a partnership of health care, philanthropic, business, government, and social services representatives that set forth the goal of improving access to care for low-income uninsured residents. Similarly, HRSA CAP grants inspired safety net providers in Kansas City and Detroit to work together to develop proposals to secure funding.

In addition to financial incentives, the identification of a troublesome gap in the community safety net was an impetus for collaboration in one city. Safety net providers in Kansas City recognized that patients were waiting up to nine months for specialty appointments. The affected providers held quarterly meetings to address the issue; as a result, waiting times improved.

Most of the networks improved communications among their respective safety net providers, but, for a number of reasons, the collaborative efforts had yet to produce a major impact on capacity. First, in two cities, we heard that the provider community had historically been fragmented and that past efforts to collaborate had not succeeded. Providers in these cities
viewed one another as competitors rather than as potential collaborators. Second, the unstable leadership of member organizations hindered some collaborative efforts. With frequent turnover in management, safety net organizations found it difficult to build trust with one another. Finally, when collaborative initiatives were in the developmental stage, a struggle for power and leadership limited progress and occasionally led to the demise of the network.

D. CONCLUSION

Federal, state, and local public policies that influence the safety net financing appeared to be the most important factors affecting capacity. Even though the quantitative data were limited, the answers that we received from key safety net provider informants, such as hospital CFOs, regarding the impact of these policies on their finances were remarkably consistent, which increased our confidence in the findings.

Safety net providers appeared to recognize the importance of running an efficient organization and were increasingly focused on developing a more business-like approach. Efforts to improve patient flows and information systems were common among hospitals and CHCs. Finally, the linkages and collaborative efforts employed by safety net providers had not yet had a major influence on capacity at the time of our site visits, though they have the potential to make a difference in the future.
V. SUMMARY OF FINDINGS AND ISSUES FOR FURTHER RESEARCH

This chapter summarizes and discusses the implications of our findings and identifies issues for further research. Given that our study addressed safety net capacity in only five cities, we cannot generalize our findings or draw implications for the safety net nationally. However, we can offer insights into conceptual and methodological issues and raise issues that emerged as themes across the five cities.

A. WHAT IS THE COMPOSITION OF THE SAFETY NET, AND WHAT IS THE CONTRIBUTION FROM EACH TYPE OF SAFETY NET PROVIDER TO AMBULATORY CARE FOR THE UNINSURED AND UNDERINSURED?

Three of the five cities exhibited a high concentration of safety net services in a few major safety net organizations while the other two cities demonstrated less concentration. Hospitals played a major role in all the cities, providing not only inpatient and emergency care for the uninsured but also most of the specialty care and a significant amount of primary care. The roles of CHCs varied as well, but they were important providers of primary care in all of the cities. The roles of other local health centers, local health departments, small clinics, and school-based clinics varied, but these providers were also significant safety net providers. We were not able to determine the role of private physicians in serving the uninsured.

We succeeded in identifying the major safety net provider organizations in each city. We began with previsit calls to the hospital associations, primary care associations, and HRSA regional offices. Respondents from these three organizations generally demonstrated a good understanding of the local safety net and directed us to appropriate organizations and individuals.

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10 To be chosen for this study, cities had to have at least one CHC, but we did not know the role of the CHC in the local safety net prior to site selection.
for on-site interviews. During the interviews, we asked respondents to identify the major providers of care to the uninsured. We received similar answers among respondents within each city.

We are less satisfied with our ability to identify all (as opposed to major) safety net providers in a city, particularly in the cities with less concentrated safety nets. For example, certain hospitals were not perceived as safety net hospitals, although their reported levels of bad debt and charity costs were high. We believe that it is worthwhile to research further, with quantitative data, alternatives for identifying and classifying safety net hospitals. We are aware of a study of the nation’s 100 largest metropolitan statistical areas in which the researchers are using uncompensated care data and alternative definitions to develop a classification of hospitals by safety net status.11

Quantifying all health care organizations’ contributions to the ambulatory care safety net proved impossible under the present study. Conceptually, determining health care organizations’ contributions to the safety net requires knowing what level of services organizations provide to the uninsured as a share of all such services delivered to the community’s uninsured. However, such data were available for only one city—Columbus, Ohio—and there we had data for only institutional providers, not for private physicians.

When focusing on the safety net for ambulatory care, we found that defining the services of interest was a conceptual challenge compounded by data gaps and inconsistencies. For example, if encounters or visits for family planning services, mental health services, and laboratory

11 The study is funded by The Henry J. Kaiser Family Foundation. A contact for the study is Alexandra Shields, Georgetown University Institute for Health Care Research and Policy. At this writing, results are not yet available.
services are included as safety net services when they are provided to the uninsured at CHCs or at a major safety net hospital, then they should be included when provided to the uninsured by family planning clinics, mental health clinics, and independent laboratories. Similarly, in the case of ambulatory care, it would be appropriate to include ambulatory care surgery or hospital “observation” stays of less than 24 hours. It is unclear to what extent hospitals normally included such services in their total outpatient visit numbers. In any event, reporting would vary from provider to provider.

Data gaps were an even greater obstacle in determining the contributions of providers to the safety net. We asked all provider organizations to provide us with the number of uninsured visits, if available from existing reports. Few of the organizations provided the data, and some remarked that the data were not easily obtainable. For example, some hospital systems told us that it was difficult to isolate data for individual hospitals. Others said that the data from earlier years in our study period were difficult to obtain because the organization has changed computer systems. Because hospitals were unwilling or unable to provide us with data on uninsured visits, we requested the information from states and from hospital associations. However, only one of the five states (Ohio) collects data on uninsured visits for individual hospitals, and none of the hospital associations had the data (or was willing to share the information with us). It is also difficult to obtain data from health departments on uninsured visits. Our impression is that health departments do not normally track the annual number of uninsured visits. It is easiest to obtain data from free clinics because the total number of visits equals the number of uninsured visits. We also used the UDS to calculate rough estimates of the number of uninsured visits to CHCs. The UDS data contain the percentage of uninsured users and total number of encounters. We assumed that the percentage of uninsured encounters is the same as the percentage of users who are uninsured.
The lack of data on private physicians’ contribution to the safety net is troubling in that an earlier study found that 30 percent of uninsured respondents reported a physician’s office as a usual source of care (Lewin and Altman 2000), yet our on-site interviews suggested that a physician’s role is more limited. The contradiction between quantitative data and our qualitative data highlights the difficulties in tracking care for the uninsured. It also demonstrates the importance of gathering both types of data as a prerequisite to characterizing local safety nets. Developing a way to track uninsured care by private physicians is essential for monitoring the safety net’s changing structure, capacity, and financial status. In addition, we cannot determine from existing research whether physicians’ role in the safety net is shrinking or growing, whether there are any differences between uninsured patients who seek care from private physicians versus those who seek care from traditional safety net providers, and what factors (financial or otherwise) affect private physicians’ role as safety net providers.

It is important to note that this study focused primarily on the safety net for the uninsured. We observed, however, that the major providers for Medicaid and the major providers for the uninsured sometimes differed. Many providers delivered a higher volume of ambulatory care services to Medicaid beneficiaries than to the uninsured. Policymakers and others concerned with monitoring the safety net cannot assume that safety net providers for the uninsured can be identified by simply using data on providers’ service to Medicaid. This situation is unfortunate because Medicaid data tend to be more available than data on service to the uninsured.

B. WHAT IS THE NEED FOR SAFETY NET SERVICES BY THE UNINSURED AND UNDERINSURED?

In the absence of reliable data on the size of the uninsured population across all five sites, we were not able to identify or quantify the need for services. We were only slightly more successful in formulating an educated guess about whether the demand for safety net services
was rising and why. With limited exceptions, respondents were not certain or consistent when responding to questions about whether the number of uninsured in their community was rising or falling. The exceptions were Columbus, where we consistently heard that the number was rising, and Kansas City, where we consistently heard that the number of uninsured children was falling.

However, in the four cities where the volume of services to the uninsured was rising at CHCs (as determined through UDS data), we used interview information to assess whether the rise was likely attributable to an increasing number of uninsured individuals in the community, expanded capacity to serve those previously not served, or a shift from other providers to the CHCs. We found that the most probable explanation was a combination of an increasing number of uninsured individuals and an expanded capacity to serve those previously unserved.

C. HOW ADEQUATE IS THE CAPACITY OF THE AMBULATORY CARE SAFETY NET TO MEET THE DEMAND FOR CARE FROM THE UNINSURED, AND WHAT CAN BE LEARNED ABOUT UNMET NEEDS?

Based mostly on the site visit interviews, Table V.1 summarizes our observations about the adequacy of the safety net’s capacity in each city and the changes in capacity since 1996. We found that the following several types of information were useful in studying the adequacy of capacity and changes to it:

- Provider self-reports of strained or excess capacity supplemented by information on waiting times for appointments
- Reports of use of emergency rooms for nonurgent care
- Changes in numbers of safety net providers, sites, services, and/or hours of operation accompanied by information on staffing changes
- Changes in volume of services to the uninsured

In addition, in assessing the outlook for the future of the study cities’ safety nets, we found useful information by examining the financial status (current and multiyear) of safety net providers and reviewing information on planned expansions.
## TABLE V.1
OVERVIEW OF SAFETY NET CAPACITY OF FIVE CITIES

<table>
<thead>
<tr>
<th>City</th>
<th>Strained Capacity: Populations and Services</th>
<th>Changes in Capacity</th>
<th>Positive Trends</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| Columbus      | • Primary care for adults (other than pregnant women)  
                • Specialty care  
                • Behavioral health services | Expanded | • Good community support  
                • Collaboration among safety net providers | • Rising uninsured |
| Detroit       | • Primary care in selected sites  
                • Specialty care  
                • Mental health  
                • Dental care  
                • Emergency rooms near area where safety net hospital closed | Reduced | • Community effort to expand coverage provides structure for potential improvements | • Declining willingness by safety net hospitals to care for the uninsured |
| Kansas City   | • One primary care site  
                • Specialty care | Expanded | • Good community support  
                • New management at several safety net providers is improving efficiency and infrastructure | • Major financial challenges remain for major safety net hospital |
| Oklahoma City | • Certain primary care sites  
                • Specialty care  
                • Dental care | Reduced | • Improved financial status of public hospital | • Poor community support  
                • Safety net providers limited in number and not located close to areas of greatest need |
| San Antonio   | • Primary care in selected sites  
                • Specialty care  
                • Behavioral health services  
                • Dental services | Expanded | • Local hospital foundation committed to expanding support for safety net | • Financial challenges remain for major safety net hospital |
Each section below briefly discusses our experience in obtaining the study data, including the limitations we encountered and how future research might build on our experience.

1. Provider Self-Reports of Strained Capacity and Waiting Times for Appointments

We found that the capacity of the safety net in the five study cities to provide adult medical services, specialty care services (except HIV/AIDS services), dental services, and mental health services was strained. The capacity to provide maternal and child health services to low-income uninsured patients was generally adequate to serve those who sought care. However, we cannot conclude that providers were meeting all the maternal and child health needs of the uninsured.

Directly asking providers whether they currently could see more patients, whether they were seeing about the maximum number they could handle, or whether they recently had to refer people elsewhere due to capacity limitations was an effective way to begin discussing the adequacy of capacity. Following up general questions about capacity with probes about whether capacity was strained for certain services or sites was also helpful for drawing out problem areas. But supplementing the general questions with a discussion of waiting times was even more useful because it helped make respondents’ statements more concrete.

In concept, the waiting time for an appointment is an indicator of a particular safety net provider’s capacity to serve more patients. However, this measure proved limited because it took into account the safety net’s capacity to serve only those people who attempted to schedule an appointment and depended on how a clinic was organized. The indicator was not useful for measuring the capacity of walk-in clinics or emergency rooms. Further, the waiting-time information from respondents for the study was not precise, but—together with a more general discussion of capacity—it helped us identify major problem areas.

Accordingly, we suggest that future studies could build on our work as follows:

- **Studies should distinguish between waiting times for routine and urgent appointments and between new and existing patients.** To collect more reliable
data, researchers must devote more thought to defining routine and urgent. For example, urgency from a patient’s perspective, based on symptoms, may not be considered urgent by a medical provider.

- **Studies should supplement provider interview data with other supporting data.** Such supporting data may derive from “secret shopper” calls, which occur when someone calls and portrays him- or herself as a patient. Administrative records (telephone logs or appointment books), to the extent the records can identify waiting times, may also be useful.

- **Waiting times should be separately analyzed for walk-in settings and appointment-based settings; for primary and specialty care services; and for adult men, adult women, and children.** Separate accountings of waiting times will facilitate the analysis of cross-site similarities and differences.

2. **Use of Emergency Rooms for Nonurgent Care**

Our discussions with emergency room directors clearly established that nonurgent care for the uninsured was a substantial proportion of the care provided in safety net hospital emergency rooms. Evidence from interviews suggested that many patients could receive care in other settings if it were available. We believe that the level of emergency room use by the uninsured for nonurgent care could be a reasonable, though indirect, indicator of the adequacy of capacity of the other safety net providers in an area. Consequently, quantifying this information in a systematic fashion would provide useful information about safety net capacity. As part of this data-collection effort, data on patient preference for emergency rooms versus other safety net providers should also be collected.

Several definitional issues need further exploration before a quantitative indicator of nonurgent emergency room use can be broadly adopted. Two specific issues should be noted:

- **Nonurgent care in the emergency room must be defined.** Hospital emergency rooms compile data on a patient’s presenting symptoms, but the same symptoms can be associated with either serious or minor conditions. Given that emergency rooms also know whether a patient was transported by ambulance, a “quick and dirty” approach would be to count the number of visits that do not arrive by ambulance. Similarly, one could count those that result in discharge to the community (rather than admission, transfer, or death).
• **Users should be tracked instead of visits.** Hospital emergency rooms tend to keep data by visit, but not by individual user. Thus, staff have a general sense that a few or many people use the emergency room as their usual source of care, but they do not have a specific count of individuals.

**D. WHAT CHANGES IN SAFETY NET CAPACITY HAVE OCCURRED BETWEEN 1996 AND 1999?**

We measured changes in the capacity of the safety net by examining the number, sites, services, and staffing of safety net providers. Using these measures, we discovered that the capacity of the safety net since 1996 increased in Columbus, Kansas City, and San Antonio but declined in Detroit and Oklahoma City. Interviews worked well to identify increases or decreases in number of sites, services, and/or hours of operation that would indicate a change in capacity. Interviewees who had been on staff for several years could easily tell us whether, where, and why changes had occurred.

An assessment of changes in capacity over time from data from the Uniform Data System for CHCs or from service data from the AHA *Guide to the Health Care Field* for hospitals can prove useful when combined with information from interviews. For example, the use of the AHA *Guide* data alone cannot distinguish between changes to services that are most used by uninsured patients versus changes to those services or sites that are rarely or never used by uninsured patients. This limitation is particularly problematic in communities where care for the uninsured is not highly concentrated in one or two safety net hospitals.

We were unable to obtain quantitative data on the effects of capacity changes on the uninsured. Further, respondents often did not know whether or where former patients obtained services after an organization closed or reduced its services. In the context of overall growth in patient volume, we found it impossible to determine whether safety net providers that were located near closed or downsized organizations experienced an increased volume of uninsured patients as a direct result of the closure or reduction. Surveys are probably the only way to
obtain such information. For example, a survey of former users of a service that had undergone reduction or a survey of new patients receiving expanded services could reveal how users’ health care experience had changed with modified service capacity.

E. WHAT FACTORS, INCLUDING PUBLIC POLICIES, DETERMINE THE CAPACITY OF THE SAFETY NET?

The site visit interviews suggested that the major factors influencing the capacity of safety net providers could be organized into two major categories: (1) public policies affecting financial status and (2) characteristics of safety net providers’ operations and infrastructure such as efficiency, management, and information systems. By synthesizing interview data across respondents, we identified the various factors related to capacity and achieved a sense of the importance of each factor. Providers were usually much less knowledgeable about factors affecting others’ capacity than about their own experience. Collaboration among safety net providers was also a factor that had the potential to increase capacity, but many of the collaborative efforts had not made a major impact on providers.

1. Financial Data

Given that we expected financial factors to be a major influence on capacity, we attempted to gather and analyze information on revenue sources and their size. While we succeeded in securing the desired data on revenue sources and size for CHCs from UDS data and for hospitals from HCIA and state data sources, we were unable, despite repeated attempts, to obtain the same data from most other safety net providers. Our sense is that providers did track the data but would not release the information because of a combination of three factors. First, some providers had made organizational or information system changes that affected their ability to provide the data for multiple years. Second, we requested the data along with other data, such that the full data request may have seemed too burdensome. Third, the busy executives we
visited simply may not have viewed our request as a priority. It is important to note that financial data, such as profit margins, even if available, are especially difficult to interpret for hospitals that contribute to the safety net but do not focus primarily on service to low-income and uninsured populations.

We were more successful in obtaining two other types of data on revenue sources as follows:

- We obtained Medicaid disproportionate share funding levels, a major financial resource for safety net hospitals, from each state. We noted some inconsistencies, however, across states (see technical appendix).

- We obtained local public funding levels and trends in each city. The source varied with the structure of local funding. We thus needed background information on the existence and structure of local public funding before we could identify a contact to provide the relevant information.

The CHCs in our study cities appeared to be surviving financially. They faced challenges each year but reported that they succeeded in meeting those challenges. Many were taking steps to improve and expand capacity. In contrast, many of the hospitals were facing serious financial difficulties. As a consequence of BBA cuts, reductions in Medicaid DSH payments, the implementation of Medicaid managed care, and other forces, the safety net hospitals had large deficits during the study period. Many hospitals had to draw on reserves to cover their yearly losses and were struggling at the time of our site visits. However, they were making changes to position themselves better for the coming years.

We found some discrepancy between a CHC’s assessment of financial well-being and the most current year’s net financial gain or loss calculated from the UDS reports provided by HRSA (see the technical appendix). We still believe, however, that once the discrepancies are resolved, the total margin is probably the most useful financial indicator available. In addition, it was the easiest financial indicator to obtain across various types of providers: CHCs, other
community clinics, and hospitals all calculated the total margin and were relatively willing to share it.

For CHCs and major safety net hospitals, it would also be useful to have measures of liquidity (for example, the current ratio, working capital, days of cash on hand, and days in accounts receivable and payable), but these indicators are currently not available.\textsuperscript{12} Other traditional financial indicators such as the ratio of long-term debt to net fixed assets (a measure of leverage) were not only unavailable but are not helpful in interpreting the condition of CHCs and major safety net hospitals. For example a low ratio of long-term debt to net fixed assets would traditionally be interpreted as a positive factor for financial status. However, it may mean that a CHC or safety net hospital lacked access to needed capital.

Hospitals, unlike CHCs and community clinics, may have sizable reserves to help them through financially difficult years. Asking respondents about whether they used reserves to cover losses and how much remained in their reserves (or looking in local press reports for such mentions) proved useful in understanding a hospital’s degree of financial stress.

Financial data for safety net providers offer a useful indicator for forecasting the future delivery of services to the uninsured, although, for hospitals with a broad-based mission as in Columbus, the data may not provide the fullest possible insight into future service delivery to the uninsured.

To use financial indicators to project the outlook for continued service delivery to the uninsured, recent data are essential. The profit/loss information we obtained from local press

\textsuperscript{12} These indicators are not available from the UDS for the CHCs, and, as discussed in the technical appendix, hospitals did not provide their financial statements; therefore, we could not calculate other financial indicators for them.
reports and from respondents on site was critical to updating the older data available from published sources (for hospitals) and the UDS (for CHCs).

As with the other data sources, we found it helpful to combine quantitative measures of financial status with impressions developed in interviews. The major safety net hospitals reporting financial problems generally showed negative margins over several years while the interviews reflected that the institutions were continuing to face a major struggle. Site visit respondents generally knew the last year’s or two years’ financial results and were able to corroborate quantitative data, explain them, and forecast the current year’s results.

In our site visit interviews, we learned that some safety net providers—typically CHCs—were actively planning expansions, suggesting that they were in good financial health and would be able to expand capacity. In contrast, providers that reported difficult financial situations were not planning any major expansions. Thus, obtaining information about planned expansions—particularly if the expansion is in the advanced stages of planning—is a good indicator of a safety net provider’s perspective on the future.

2. Operations and Infrastructure

Working toward the goal of reducing or reconfiguring services while sustaining and better managing services to increase capacity, safety net providers were concentrating more heavily than ever before on improving their operating efficiency. Also as part of their efficiency initiative, many of the organizations were devoting considerable attention and funding to upgrading their information systems.

Quality of management is a particularly important factor supporting or undermining safety net organizations. Poor management led to the closure and near closure of several safety net providers; new management was said to be improving the outlook for capacity in these organizations.
Collaborative efforts among safety net providers also offered the potential to help support the local safety net. Though results remain limited to date, four of the five cities had organized forums that permitted safety net providers to discuss issues of capacity and access.

G. CONCLUSIONS

In conclusion, we found that it was possible to address many of the research questions outlined by HRSA and OASPE for this Study of Safety Net Provider Capacity to Care for Low-Income Uninsured Patients. Nonetheless, we currently lack consistent, reliable, and uniform data across all cities to quantify the nature of the safety net and monitor change over time. Indeed, the most important policy questions related to the capacity of the safety net could be answered only by relying on qualitative research methods. Table V.2 outlines the types of information that would be useful when examining local safety nets, reviews the methods used in this study, and advances suggestions for future research.

Recognizing that the composition of the safety net and its capacity varies so much from city to city, we conclude that it is not possible to rely on national surveys to study safety net capacity issues; furthermore, local survey data are rare. Moreover, given that national population-based surveys do not collect much information on the characteristics of providers, we cannot distinguish at the patient level whether the patient is using a safety net provider. Consequently, if organizations such as HRSA and OASPE choose to continue to study safety net capacity, they should both rely on qualitative studies and press for continued improvement in the collection of quantitative data. Qualitative studies will always be needed to explain why the safety net is constructed in a certain way to understand what factors contribute to a strong (or weak) safety net and to anticipate changes that may be on the horizon.
### TABLE V.2
REFERENCE GUIDE FOR FUTURE RESEARCH

<table>
<thead>
<tr>
<th>Safety Net Data Required</th>
<th>Methods Used in This Study</th>
<th>Suggestions for Future Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of Safety Net Organizations</td>
<td>Reviewed published information from HCIA (1999), HRSA (1999), and then made previsit calls to Primary Care Association, Primary Care Organization, hospital association, and HRSA field office. Confirmed with providers on site.</td>
<td>Our method worked well, particularly for cities with a concentrated safety net system. We suggest that future researchers use a similar method.</td>
</tr>
<tr>
<td>Ambulatory Care Visits for the Uninsured</td>
<td>Requested data on uninsured ambulatory care visits from all safety net providers, states, and hospital associations. Reviewed UDS data.</td>
<td>UDS data are useful to generate a rough estimate of visits for CHCs. Only Ohio collects data on uninsured visits from all safety net hospitals. Individual hospitals do have the ability to provide these data but are reluctant to release them. There is no reliable source of data on uninsured visits to private physicians.</td>
</tr>
<tr>
<td>Need and Demand for Services</td>
<td>Explored current population survey data and Center for Studying Health System Change data on the rates of uninsured. Interviewed providers on their impressions of the size and change in the number of uninsured. Reviewed UDS data and interviewed providers on the amount of care to uninsured patients.</td>
<td>We suggest either conducting surveys with large local sample sizes to determine the number/percent uninsured or selecting study sites where reliable data on the uninsured are available.</td>
</tr>
<tr>
<td>Adequacy of Capacity</td>
<td>Interviewed providers on their ability to care for additional patients, waiting times for appointments, nonurgent visits to the emergency room, and general impression of the adequacy of safety net capacity.</td>
<td>Researchers should identify uniform definitions for appointment waiting times (for example, initial visits versus follow-up visits) and nonurgent care in emergency rooms. Providers’ reports of their ability to care for more patients are important indicators.</td>
</tr>
<tr>
<td>Public Policies and Other Factors Supporting or Undermining Safety Net Providers</td>
<td>Interviewed providers on public policies, their operations and infrastructure, and collaborative efforts with other safety net providers.</td>
<td>Providers were most familiar with policies that affected financial status. We suggest also interviewing local, state, and federal policy makers on the intended and actual effects of policies.</td>
</tr>
</tbody>
</table>
To further the research initiated with this study, we suggest that future work:

- Improve key information for monitoring safety net capacity, by:
  - Beginning to work with states and local entities to obtain reliable local data on the number and characteristics (for example, age, sex, race) of uninsured people that could be used to estimate the need for services
  - Selecting one or two data elements with which to identify safety net providers (e.g., ambulatory care visits by the low-income uninsured, costs of serving the uninsured), and collecting these from all providers on a periodic basis, to help profile the structure of local safety net systems
  - Using key informants to develop and verify the identity of safety net providers, until such time as data and an agreed-upon methodology are available for this purpose
  - Obtaining uniform data from identified safety net providers on ambulatory care visits for the uninsured, revenue sources, and financial performance, either through one-time surveys or ongoing data collection, perhaps through state government efforts
  - Developing a uniform protocol for collecting appointment waiting times from providers, either through surveys or by directly calling appointment lines
  - Developing a uniform method for collecting data from safety net hospital emergency rooms on the delivery of nonurgent care to the uninsured and collect such data either through surveys or administrative records
  - Using interviews and other qualitative research to confirm and explain quantitative results and to anticipate changes in safety net capacity.

- Determine whether the health care system’s capacity for providing specialty services to the uninsured is as strained as it appeared to be in the five cities we studied, and if so pursue solutions to the problem

- Build on this work to explore typologies of local safety net systems that may be important, but whose importance could not be determined based on the small number of cities we studied, such as typologies that differentiate safety net systems by dominant provider ownership type or by level of local financial support.

- Continue work to understand the strengths and weaknesses of different types of safety net systems as they affect the uninsured, including the strengths and weaknesses of concentrated vs. dispersed safety net systems

- Further explore the critical role of local and state government support for the safety net (beyond Medicaid), both in terms of levels and models of support, to encourage more effective support strategies.
REFERENCES


Needleman, Jack, JoAnn Lamphere, and Deborah Chollet. “Uncompensated Care and Hospital Conversions in Florida.” *Health Affairs*, vol. 18, no. 4, July/August 1999, pp. 125-133.


One of this study’s objectives was to explore secondary data sources that can be used to track the capacity and financial stability of local safety nets. Some of the data sources we examined were very comprehensive and provided reliable data, while others were less complete or less reliable. The table on the next page lists which data sources we used to analyze the main topics in this study, explains the limitations of each source, and provides general comments on each. Additional information on the data appears in the discussion that follows the table.

A. COLLECTION EFFORTS FOR DATA ON UNCOMPENSATED CARE FROM INDIVIDUAL PROVIDERS

We requested data on uninsured visits for 1996–1999 from each provider that we interviewed on site (except for CHCs, as the data are contained in the Uniform Data System). We received at least some data from 5 of the 15 hospitals, 4 of the 5 other health centers, and 2 of the 5 health departments.

Obtaining the data proved difficult for several reasons. Some of the hospitals did not have the data on hand, so would have had to generate special tables or reports for us. In addition, at least one hospital changed computer systems during the study period and had trouble accessing data from the older system. Some hospital systems do not routinely track data on uninsured visits for individual hospitals, and it was difficult for these hospital systems to isolate data from individual hospitals. Only one of the five states (Ohio) keeps data on uninsured visits for individual hospitals. We could not obtain data from the other states or most hospitals on uninsured visits; however, we were able to obtain state and hospital association data on bad debt and charity care.
<table>
<thead>
<tr>
<th>Study Topic (Chapter)</th>
<th>Data Source</th>
<th>Limitations and General Comments on the Data</th>
</tr>
</thead>
</table>
| Background on Study Cities (I)                | Census data  
2000 County and City Extra  
CPS data  
Center for Studying Health System Change (HSC)  
Survey Data  
Interstudy | Much of the census data is by county, rather than city.                                                                              |
| Identification of Safety Net Providers (II)   | More than 100 interviews (including pre-visit interviews with the hospital associations, primary care associations, and HRSA regional offices)  
Local newspaper articles  
HCIA Hospital Guide  
Bureau of Primary Health Care’s Primary Care Programs Directory | Pre-visit calls determined the most important safety net providers to visit on site. On-site interviews confirmed the correct identification of major safety net providers. |
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</table>
| Amount of Care Delivered to the Uninsured (II) | Hospitals  
Interviews  
Hospital data on uninsured visits  
State data on uncompensated care  
Hospital association data  
CHCs  
Interviews  
BPHC’s Uniform Data System  
Other health centers  
Interviews  
Health center data on uninsured visits  
Health departments  
Interviews  
Health department data on uninsured visits  
Private physicians  
Interviews  
Center for Studying Health System Change (HSC) data  
Small clinics  
Interviews | Complete data on the number of uninsured visits across providers and cities were not available (see Section A in the following discussion).  
It was easier to obtain hospital data from states than from individual hospitals.  
The UDS provided the only comprehensive data for tracking uninsured visits across all five sites.  
We did not attempt to collect data on uninsured visits from school-based clinics. Since these clinics are administered by CHCs, health departments, or hospitals, visits at school-based clinics are included with the administering organizations’ totals |
<p>| Number/Change in Uninsured Citywide (I and III) | HSC data, CPS data, interviews | Reliable city-level data were not available for all sites. HSC data for metropolitan areas were available for three of our five study cities (see Section B in the following discussion). |</p>
<table>
<thead>
<tr>
<th>Study Topic (Chapter)</th>
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<tr>
<td>Waiting Times, Use of ER for Nonurgent Care, Strained Capacity and Its Effects, Identification of Expansions and Reductions in Capacity (III)</td>
<td>Interviews</td>
<td>It was difficult to compare wait times across sites and organizations. Often the respondents did not specify wait times based on the type of visit (for example, well-child or adult medicine) or distinguish between wait times for initial visits and follow-up visits.</td>
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<tr>
<td></td>
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<td>Data on uninsured ER visits were not available.</td>
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<td></td>
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<td>Effects of expansions were easier to identify than reductions because of a lack of knowledge of where or whether former patients are receiving care (see Section C in the following discussion).</td>
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<td>Interviews were generally effective in identifying tight capacity, but observing the organizations’ exam rooms and waiting areas during business hours was also useful.</td>
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<td></td>
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<td>Interviews were the only way to obtain data on expanded or reduced hours, on sites, and on services of providers. The expansions and reductions that had larger effects were easier to corroborate across many respondents.</td>
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<td>Interviews have some limitations because they provide self-reported impressions.</td>
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<tr>
<td>Study Topic (Chapter)</td>
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| Finances of Safety Net Providers (IV) | Medicaid managed care  
Interviews  
UDS  
Disproportionate share hospital payments (see Section D in the following discussion)  
Interviews  
State data  
Local, state, and federal funding:  
Interviews  
UDS (for CHCs)  
Private foundation grants and tobacco settlement funds  
Interviews  
Overall financial status  
Interviews  
HCIA-Sachs  
Individual organization data where available | We had difficulty gathering data on revenue sources between 1996 and 1999 from individual organizations (with the exception of CHCs), so we relied heavily on interviews (see Section E in the following discussion).  
Significant effort (multiple follow-up calls) was required to collect data.  
It was easier to obtain hospital financial data from states than from individual hospitals.  
Interviews with CFOs were essential to obtaining information on payment rates for Medicaid and Medicaid managed care.  
Interviews with local health departments were helpful to obtain information on local funding sources |
| Efficiency, Management, Staffing, and Information Systems (IV) | Interviews | Interviews were generally effective in identifying difficulties or successes. |
Post-visit telephone conversations with data managers at the health departments suggest that the departments typically do not have readily available data on uninsured visits for multiple years. It was easier to obtain data from free clinics (including small ones) because the total number of visits equals the total number of uninsured visits. However, because some cities have many small clinics, it is difficult to collect data for all clinics. In addition, many small clinics do not have records on the number of visits for the earlier study years.

B. DATA ON THE UNINSURED

Information from respondents within cities on the size of the uninsured population and whether it was increasing or decreasing is mixed. The Center for Studying Health System Change (HSC) provided 1996 and 1998 estimates of the percentage uninsured for three of our study cities. The confidence intervals reported in Chapter III, Table III.1 are biased because of within-household clustering, but this could be corrected by using SUDAAN, a software package specifically designed for analysis of cluster-correlated data. We also looked at the CPS data used in the 2000 Brown et al. study. While the HSC data include all ages, the CPS data reported in Brown et al. are limited to information on the nonelderly population. We do not have confidence intervals for the CPS data, but our understanding is that the yearly city-level estimates are taken from a very small sample. A more reliable way to compare cities would be to develop a five-year average for the affected cities.

C. DIFFICULTIES IDENTIFYING EFFECTS OF CAPACITY REDUCTIONS

We could not determine the effects of reductions in capacity on the uninsured. The largest reduction in our study sites was the closure of Mercy Hospital in Detroit. We heard that visits to the emergency room of nearby hospitals had increased since the closure, but we cannot confirm the extent of the increase with existing data. Yearly uncompensated care data provided by the
Michigan Health and Hospital Association does not identify hospitals by name and data were not yet available for any of the hospitals for the year following the closure.

D. EXPLANATION OF MEDICAID DSH DATA

Federal Medicaid DSH payments are matched by state contributions. States may generate some part of their contribution through a donation or tax or intergovernmental transfer from the hospitals themselves. The hospitals then receive back from the state an amount that includes some or all of what they contributed plus federal dollars that have been generated through this process. The specific process, the basis for assessments or transfers, and the distributions back to hospitals vary from state to state, as do the data maintained by the states.

Variation across states in Medicaid DSH data created two challenges. First, it is difficult to compare data across states. Although two states maintain data on Medicaid DSH revenue for each hospital minus the amount that the hospital itself had paid into the system, other states do not track such data. For example, in Missouri, the assessments paid by hospitals support not only the Medicaid DSH payments to hospitals but also other state initiatives. The state can not readily distinguish between the amounts of assessments that supported Medicaid DSH and the amounts that supported other programs. When Medicaid DSH revenue data include such assessments, the dollar amount that supports safety net hospitals through Medicaid DSH could be overstated.

The second challenge was posed by one state in which the Medicaid DSH payment data for one year but possibly not for others appeared to include special indigent care initiatives funded in our study county. The total dollar amount involved was substantial ($44 million). Our efforts to clarify how these funds were accounted for in the data for other years data have not been fruitful.
E. COLLECTING FINANCIAL DATA FROM INDIVIDUAL PROVIDERS

To collect financial data from providers, we sent multiple (typically three) requests for 1996–1999 revenue data by source to every provider organization that we met with on site (except CHCs, because the UDS contained the information). Because only two hospitals provided us with financial data, we asked the states for data they maintain on individual hospitals. We received some financial information from four states and one hospital association (although the hospital association data did not identify the individual hospitals). The data collected by states on hospitals and made publicly available vary, but we were generally able to obtain information on operating revenues, other revenues, total expenses, bad debt, and charity care. Although most of the state data seemed complete, the data from Oklahoma did not list all hospitals in all years. We suspect this occurred because not all hospitals are required to report information to the state. The UDS provided us with the financial information for CHCs; overall, the UDS data were the most comprehensive for tracking the safety net across sites.

Of the five other local health centers, two provided us with some financial data, and two that were funded entirely from a hospital conversion foundation did not provide the level of funding. The fifth local health center did not provide data.

Four of the five local health departments provided at least some financial data. We did not request data from small clinics because we know that they do not receive payment from patients (aside from donations) and that they typically operate with volunteers.