An Evaluative Study of the Area Health Education Centers Program

A FINAL REPORT

to

The Area Health Education Centers Branch
Division of State, Community and Public Health
Bureau of Health Professions
Health Resources and Services Administration

Under Task Order “Evaluation of Area Health Education Centers Program”

Task Number 16 Deliverable

by

The Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill
Research Triangle International
Health Services Research, Inc.

August 23, 2002
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## Acronym Dictionary

<table>
<thead>
<tr>
<th>Term</th>
<th>Acronym</th>
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<tbody>
<tr>
<td>Academic Health Center</td>
<td>AHC</td>
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<tr>
<td>American Institutes for Research</td>
<td>AIR</td>
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<tr>
<td>American Medical Association</td>
<td>AMA</td>
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<tr>
<td>Area Health Education Center</td>
<td>AHEC</td>
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<tr>
<td>Area Resource File</td>
<td>ARF</td>
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<tr>
<td>Association of American Medical Colleges</td>
<td>AAMC</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>BSN</td>
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<tr>
<td>Bureau of Health Professions</td>
<td>BHP</td>
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<tr>
<td>Children's Health Insurance Program</td>
<td>CHIP</td>
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<tr>
<td>Community Access Program</td>
<td>CAP</td>
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<td>Community Health Center</td>
<td>CHC</td>
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<tr>
<td>Community-Based Education</td>
<td>CBE</td>
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<td>Community-Based Organization</td>
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<tr>
<td>Community-Campus Partnerships for Health</td>
<td>CCPH</td>
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<tr>
<td>Community-Oriented Primary Care</td>
<td>COPC</td>
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<tr>
<td>Comprehensive Performance Management System</td>
<td>CPMS</td>
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<tr>
<td>Computed Tomography</td>
<td>CT</td>
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<td>Continuing Education</td>
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</tr>
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<td>Council on Graduate Medical Education</td>
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<td>Critical Access Hospital</td>
<td>CAH</td>
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<td>Department of Health</td>
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<td>Department of Health and Human Services</td>
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<td>Department of Public Health</td>
<td>DPH</td>
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<tr>
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<td>DMH</td>
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<tr>
<td>Division of Medical Assistance (Medicaid)</td>
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<td>Doctor of Medicine</td>
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<tr>
<td>Federal Emergency Management Agency</td>
<td>FEMA</td>
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<tr>
<td>Federally Qualified Health Center</td>
<td>FQHC</td>
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<tr>
<td>Full-Time Equivalent</td>
<td>FTE</td>
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<tr>
<td>Health Careers Opportunities Program</td>
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<tr>
<td>Health Education and Training Center</td>
<td>HETC</td>
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<td>Health Professional Shortage Area</td>
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<td>Health Resources and Services Administration</td>
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<td>Health Services Research, Inc.</td>
<td>HSR</td>
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<td>Hospital Association</td>
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<td>Indian Health Service</td>
<td>IHS</td>
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<tr>
<td>Term</td>
<td>Abbreviation</td>
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<tr>
<td>------------------------------------------</td>
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<tr>
<td>Master of Public Health</td>
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<tr>
<td>Master of Social Work</td>
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</tr>
<tr>
<td>Medical Applications of Science and Health</td>
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</tr>
<tr>
<td>Medically Under-served Area</td>
<td>MUA</td>
</tr>
<tr>
<td>Migrant Health Center</td>
<td>MHC</td>
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<tr>
<td>National AHEC Organization</td>
<td>NAO</td>
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<tr>
<td>National Council of State Legislatures</td>
<td>NCSL</td>
</tr>
<tr>
<td>National Health Service Corps</td>
<td>NHSC</td>
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<tr>
<td>National Institute for Occupational Safety and Health</td>
<td>NIOSH</td>
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<tr>
<td>Nurse Practitioner</td>
<td>NP</td>
</tr>
<tr>
<td>Occupational Therapist</td>
<td>OT</td>
</tr>
<tr>
<td>Office of Rural Health</td>
<td>ORH</td>
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<tr>
<td>Office of the Inspector General</td>
<td>OIG</td>
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<tr>
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<td>PT</td>
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<tr>
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<td>Request for Proposal</td>
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<tr>
<td>Rural Hospital Flexibility Program</td>
<td>RHFP</td>
</tr>
<tr>
<td>Student/Resident Experiences and Rotations in Community Health</td>
<td>SEARCH</td>
</tr>
<tr>
<td>Uniform Progress Report</td>
<td>UPR</td>
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<tr>
<td>University of North Carolina - Chapel Hill</td>
<td>UNC-CH</td>
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Executive Summary

In 1998, Congress re-authorized the Area Health Education Centers (AHEC) Program, as part of the Health Professions Education Partnerships Act (P.L. 105-392, Section 751). The Senate Report accompanying P.L. 105-392 directs the Health Resources and Services Administration (HRSA) to: “conduct an evaluative study of Area Health Education Centers (AHECs) to identify key factors, characteristics, and methodologies employed by successful AHECs; and factors, barriers and impediments in areas where AHECs have not been able to cover their defined service areas, to involve other health professions, and to maintain an interdisciplinary focus. The results of the study should be used to define further the selection criteria and program requirements essential for successful AHEC operations and to assure effectiveness in providing primary care to under served areas.” This report is a response to that Congressional request. As of September 2001, there were 43 operating AHEC Programs. These were divided into two types: 16 “basic/core” AHECs and 27 “model” AHECs. The basic AHECs had 42 affiliated Centers (36 funded with federal support and 6 with state and local funds); the model AHECs, had 123 affiliates. In addition, there were also five Border and five Non-Border Health Education and Training Center Programs (HETCs). All of these entities formed the universe of the program that was the focus of this evaluative study.

In May of 2001, the BHPr entered into a contract with Health Services Research (HSR), Inc. and its subcontractors, the University of North Carolina at Chapel Hill (UNC) and Research Triangle Institute (RTI) to conduct that study. An evaluative study team was formed under the direction of senior researchers from HSR, RTI and UNC.

The evaluative study team was charged with focusing on two key questions:

(1) What are the key factors, characteristics, structures, and processes employed by successful AHECs?

1 Listing provided by AHEC Branch, BHPr, HRSA current to September 4, 2001.
(2) What are the factors, barriers, and impediments in areas where AHECs have not been able to cover their defined service areas, to involve other health professions and maintain an interdisciplinary focus?

The study team was also charged: (1) to make use of secondary data including the recently established Comprehensive Performance Management System/Uniform Performance Reporting (CPMS/UPR) system; and (2) to conduct focus groups with key stakeholders and students who had received training within an AHEC Program or system.

The evaluative study design was developed in cooperation with the AHEC Branch staff and leadership with input from an external advisory committee to the Branch. The core of the study was data collection and information gathering from eight AHEC and one HETC Program. They were chosen to represent the following dimensions:

1. Model versus Basic (4 model, 4 basic)
2. Higher medical emphasis versus lower (4 higher medical, 4 lower)
3. Osteopathic representation (1 osteopathic systems, 7 allopathic)
4. Geographic distribution (2 South, 2 Mid-Atlantic, 2 West, 1 Northeast, 1 Midwest)
5. Focus on different minority groups and linguistic diversity (African-American, Hispanic, Native American, and migrant Centers or programs are included)
6. Urban-rural foci (3 urban Centers/Programs, 1 rural only, 4 urban-rural)
7. Representation of various Center types (hospital, 501-c-3, other).

Eight AHECs were selected as site visit locations by the contractor, in consultation with the National AHEC Program Office (NAO) and the AHEC Program External Evaluation Study Committee (ESAC). AHECs chosen for site visits are in the following states: California, Louisiana, Arizona, Illinois, South Florida (Tampa), Maryland, Pennsylvania and Vermont. In addition, in accordance with HRSA directive, one HETC was chosen: the Health Education Training Centers Alliance of Texas (San Antonio, Texas). This choice was made based on preferences for a border HETC Program, one that offered a range of organizational approaches and diversity in target populations and communities.
The following table summarizes the site visits:

<table>
<thead>
<tr>
<th>State</th>
<th>Month of Site Visit</th>
<th># Site Visitors</th>
<th># Days</th>
<th># Centers</th>
<th>Number of Contacts*</th>
<th>Focus Groups</th>
</tr>
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<tr>
<td>Pennsylvania</td>
<td>January</td>
<td>6</td>
<td>3</td>
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<td>35</td>
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<tr>
<td>Vermont</td>
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<td>3</td>
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<td>California</td>
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<td>38</td>
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<tr>
<td>Illinois</td>
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<td>2</td>
<td>3 of 3</td>
<td>30</td>
<td>Y</td>
</tr>
<tr>
<td>Florida</td>
<td>March</td>
<td>4</td>
<td>2</td>
<td>2 of 2</td>
<td>29</td>
<td>Y</td>
</tr>
<tr>
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<td>2</td>
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<td>21</td>
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<tr>
<td>Louisiana</td>
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<td>3</td>
<td>2 of 4</td>
<td>29</td>
<td>N</td>
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<tr>
<td>Arizona</td>
<td>April</td>
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<td>3</td>
<td>1 of 5</td>
<td>21</td>
<td>Y</td>
</tr>
<tr>
<td>Maryland</td>
<td>April</td>
<td>3</td>
<td>2</td>
<td>2 of 2</td>
<td>20</td>
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</table>

*A contact is an individual person. Contacts include AHEC Program staff, AHEC Center staff, academic partners, community partners, and board members. Students interviewed during focus groups are not included in this number.

The study team made use of an advance survey of the site-visited programs, existing documentation from the AHECs and HETCs, the CPMS/ UPR, and applications for funding submitted to the AHEC Branch as well as a structured annotated bibliography prepared early in the progress of the study. The site visits included focus group sessions with students and trainees either currently enrolled in or graduated from AHEC- or HETC-sponsored courses. Focus group information gathering sessions were also held during the 2002 annual meeting of the NAO.

The information gathered from these sources was analyzed using a qualitative interpretative framework that identified key observational themes that emerged during the site visits and after review of extant data. The thematic areas were:

- History and Background;
- Mission and Goals;
- Funding;
- Programmatic Activities;
- Organization and Structure;
- Administration; and
- Partnerships.

A series of observations within each of these areas were developed and these were illustrated with verbatim quotations from the sites visits or with summary data describing
the programs and their activities. These summary statements were placed in the context of the conceptual framework of the study which viewed AHECs as inter-organizational entities subject to similar forces and performance patterns as other inter-organizational systems or structures.

The analysis surfaced the following summary observations, arranged by major thematic category:

**History**

History clearly shapes the subsequent fortunes of AHECs, both through initial conditions at the time of founding as well as “sentinel” or critical events that occur during the life course of the AHEC. The following general statements could be distilled from the analysis:

- The value compatibility of the host institution (e.g., extent to which the host institution has committed itself to primary care and rural-under-served populations) is a strong indicator of a successful AHEC.

- The higher status of the partner institutions for Centers and Programs is conducive to better AHEC performance; this was independent of whether the partner institution was public or private.

- Where there are multiple academic medical centers within an AHEC state, the interrelationships between those institutions must be stable and settled prior to successful AHEC operation.

- The leadership qualities of the founding AHEC staff at both the Program and Center levels are key to success (e.g., their entrepreneurial spirit, energy, vision, focus, connections, and reputation).

- At the time of founding, a high level of trust between the academic medical center(s) and community-based providers and provider organizations is supportive of AHEC success.
A central and rational geographic location of the host institution for the statewide program is supportive of success.

The decision to found Centers as freestanding, not-for-profit, independent corporations is supportive of success.

The selection of Board members who are representative of the AHEC’s key stakeholders and who provide community representation in the strategic planning and decision-making process is supportive of success.

Similarly, our site visits suggest that the following “sentinel” events play an important role in shaping the subsequent fortunes of the AHEC: AHECs which have experienced these events can provide useful lessons to other AHECs and HETCs.

- Transition from basic funding to state support.
- Changes in leadership at the Program and Center levels.
- Changes in the location of the AHEC Program Office or Centers.
- Change in the legal status of AHEC Centers.
- Perceived responsiveness of AHEC to emerging issues or crises.
- Responsiveness of AHEC to changing organizational needs as AHEC moves through the developmental life cycle from emergence to growth to maturity to revitalization.
- Changes in relationships among participating academic medical centers due to exogenous events (i.e., events unrelated to AHEC but affecting AHEC).

**Mission and Goals**

AHECs are being asked to respond to many issues and pressures within the health care delivery system. These pressures originate from the various organizational entities with which the AHEC is affiliated and with whom the AHEC shares a common mission to address issues concerning health professions education and quality, workforce supply and distribution, access to care for under-served/rural populations and enhancing the diversity/cultural competency of the health workforce. Successful AHECs strike a balance between priorities passed down through the funding branch of the federal
government ("Kids-into-Healthcare"); from market pressures (nursing shortages); from significant external events (bioterrorism and the need to prepare the workforce); from the priorities of the state governments (health promotion initiatives tied to tobacco funds); from the pressures of local communities (need for technical assistance in ensuring safety net services); and from the mission pressures of hosting institutions (making use of the AHEC network and community partners for research not tied to training and education). These pressures may sometimes cause the AHECs and HETCs to engage in activities that appear to be deviations from the core mission of the AHEC system and some are viewed expressly as a potential threat to the identity of the Programs and Centers.

Funding

Obtaining ongoing funding from multiple sources is a perpetual challenge for AHECs. They exist with a combination of federal and state funds, including funds from other HRSA programs (e.g., Center for Excellence in Women’s Health). Some entrepreneurial Programs and Centers have been successful in obtaining extramural funding from local, regional, and national foundations (e.g., to support loan repayment programs). To a lesser extent, Centers have succeeded in obtaining financial support from local health and human service delivery organizations and other community partners. Generally, however, such support takes the form of in-kind contributions rather than financial contributions.

The transition from federal basic funding to state support represents a “sentinel” or critical event in the developmental trajectory of AHECs. The initial level of support and the form that it takes (e.g., as a separate line item in the state budget or as a line item in the host institution’s budget) plays an important role in shaping the activity and viability of the AHEC. State support represents the most important (or potentially most important) source of funding for AHECs. Interview participants expressed skepticism that AHECs could ever become fully funded through grants, contracts, and local support. As one respondent put it, “It would be a mistake to assume that the AHEC will ever be completely self-supporting. Government plays key role in AHEC. Those dollars make sure the University recognizes the importance.”
State funding plays an important role in AHEC continuance because it serves as the primary source of funding for supporting AHEC infrastructure (e.g., staff salaries and overhead costs). With this infrastructure in place, the AHEC can deliver core AHEC Programs, seek additional grant funding, and provide programs for agencies, organizations, and foundations that only fund direct costs. Without stable, adequate state funding, AHECs become dormant or spend considerable time and energy securing funding from year to year.

It is challenging for AHECs to convince state legislatures and policy makers to provide a level of funding that is adequate to maintain AHEC infrastructure. As one interview participant observed, “What happens is that the midlevel people oversee state projects and the state government wants to buy project time. They assume that they AHEC infrastructure is intact and that they can pay for a project rolled out on it. I have to say that part of the money that you are giving me has to go for basic infrastructure support. That is a hard conversation.”

Funding drives priorities and accountabilities. Funding also determines influence. In some mature AHEC Centers, the amount of state AHEC funding and federal (model) AHEC funding is relatively small compared to the total amount of funding generated from grants and contracts. As Centers become less dependent on state and federal AHEC funding, they may become less responsive to (and identify less with) state and federal AHEC Program goals and priorities. Although they retain the AHEC’s mission and values, these Centers may not see AHEC as their primary identity or the most important set of activities. This tendency, which might be stronger among AHECs that have independent legal standing, could make it more difficult to rally Centers to respond to state and federal AHEC priorities.

**Programmatic Activities**

AHECs have been tasked with multiple jobs including improving the quality of care, increasing the supply, distribution, and diversity of their local healthcare workforce, preparing health professionals for bioterrorism, and advancing the pipeline of health careers.
Responsiveness to Workforce Shortages: AHECs are aware of existing and impending health professional shortages but site visitors saw limited programmatic activity to address shortages in supply, distribution, and diversity of various types of health professionals.

Responsiveness to Bioterrorism Preparedness: AHECs have entered into a new realm of preparing health professionals and communities for bioterrorism threats, mostly through CE-related activities. AHECs have the ability to serve as “platforms” because of their already well-established networks. Not surprisingly, border and urban AHECs felt the threats more acutely than other AHECs.

Community-Based Health Professional Education: As the core activity of most AHEC Centers and new AHEC Programs, community-based education is viewed as the main programmatic activity of an AHEC. In addition to the federal “10 percent rule” of placing undergraduate medical students into the field, AHECs have moved into developing and supporting education opportunities for primary care residencies and other health professions like dentists, pharmacists, and nurses in addition to supporting curriculum change and developing training sites.

Interdisciplinary Education and Training: Two principal strategies used by the AHECs to support interdisciplinary education and training include building mid-level practitioner programs and developing team-based models composed of health professionals providing care. Two barriers AHECs face in implementing these activities are attitudes of health professionals towards other health professionals and regulatory constraints imposed on scope of practice for non-physician providers. Despite dedicated efforts and creativity, “maintaining the interdisciplinary focus is still a struggle” for AHECs.

Health Careers/Kids-Into-Health Care: Engagement of young people about careers in health care is a common activity of the AHECs. Because of their extensive networks and collaborative efforts, AHECs are aptly positioned to provide information and resources to young adults interested in pursuing a health profession.
However, despite their commitment, AHECs offer a “pipeline” of health career recruitment activities that is very piecemeal and disjointed. In addition, these programs have no standard method for tracking young students who travel through and ultimately complete the pipeline.

- **Quality Initiatives:** Activities that are intended to improve quality of care vary across AHECs. Continuing education is typically at the foundation of most of AHEC’s efforts to improving quality. Other quality initiatives observed in the AHECs include community-based education activities for rural, under-served populations, clinical practice modifications, skill-building of health professionals, and practice support for technology advancement.

- **Diversity Initiatives:** AHECs recognize the need to increase their recruitment and retention efforts of under-represented minorities in health professions and to enhance the cultural competency of health professionals. AHEC’s level of involvement in diversity initiatives varies by state and tends to depend the amount of diversity in the state’s population. Examples of such initiatives include developing cultural competence curricula for medical, nursing, and allied health schools, providing CE programs on cultural competence and diversity management, and offering medical Spanish courses to local health care providers.

**Organization and Structure**

The location of the AHEC Office within the academic medical center both reflects and determines the level of support and interest the program has within the academic medical center. AHEC Programs located in the dean’s office of the medical school, for example, seemed more visible and more influential than AHEC Programs located in specific academic departments (e.g., family medicine) or other, more peripheral locations within the academic medical center (e.g., office of continuing education). Moreover, the visibility and influence of the AHEC within the academic medical center seemed greater when the AHEC Program was integrated with other primary care initiatives and educational reform efforts. Having a single individual or office responsible for coordinating AHEC activities and related primary care initiatives and educational reform
efforts raised the profile of the AHEC, increased the influence of that individual or office, and created opportunities for leveraging activities across related initiatives.

Geographic coverage seems to be a problem at both the state and regional level. In some states, the number of Centers seems insufficient given the population of the state and its geographic size. As a result, some Centers have unmanageably large regions. Entire sections of the state go under-served simply because the Centers do not have the resources (financial, staffing, and time) to meet the needs of the entire region. However, geographic coverage seems problematic even in those states with the “right” number and distribution of Centers. Centers tended to give greatest attention to the communities in their immediate vicinity. Outer lying areas tended to receive less attention. Moreover, board composition tended to reflect this focus on local rather than regional needs. Centers reported difficulty recruiting and retaining board members from outer lying areas due to the time and expense involved for board members to travel to board meetings.

In general, Centers seemed very responsive to local needs and requests. Centers operated with considerable autonomy, in some cases at the expense of opportunities for coordinated action on statewide. These findings raise an important issue for the overall AHEC design: What is the purpose of the Program Office? Should the Program Office solely serve in an administrative capacity or should it engage in programmatic activities? How does the role of the Program Office differ as the program matures? How much is the role of the Program Office determined by the particular qualities of the Program Director? How much of its role is shaped by the history of the Program? We observed considerable variation in what the Program Office actually does as well as in the perspectives of what the Program Office should do (or not do). In some cases, the Program Office served as the liaison with the legislature, various professional associations, and state and federal agencies. In other cases, the Program Office focused more internally, serving primarily as a coordinator across Centers, an administrator of contracts, or both. In still other cases, the Program Office’s role vis-à-vis the Centers remains a source of confusion.
Administration

The success of an AHEC is dependent on the strength of its leader. The leader is often a visionary – a “big picture thinker” – with a clear sense of the AHEC’s mission and vision. The leader must be well-connected in the state’s political realm in order to ensure legislative attention for the AHEC Program. As the AHEC matures and ages, the direction of leadership appears to transition. While a visionary leader is needed in the early stages of an AHEC’s development, a business savvy administrator is more commonly seen in older, more mature AHECs.

Successful AHEC Programs must have systems of communication in place in order for Program-Center interaction to occur regularly. Typically, these interactions occur on a weekly or bi-monthly telephone/email basis, but we observed more frequent communication in younger AHECs than older AHECs. Centers reportedly are able to maintain their autonomy and independence since Programs tend to espouse a ‘hands-off’ management approach. The AHECs are utilizing other communication mechanisms, like videoconferencing technology and electronic library systems, but the capability and quality of this equipment and those who use it varies across Centers and Programs. While the AHECs attempt to technologically advance themselves, these systems are not seen as big investments but rather complements to more traditional methods of communication and education.

AHECs need strong skill sets, such as grant writing, financial and budgeting skills, managing students and preceptors, collecting and interpreting data, and disseminating information, among their staff to function and thrive. The level of expertise in these areas varies across the Programs and Centers. While the Programs may be more likely to exhibit a wider range of skills, the Centers often utilize their partners to fulfill their skill set needs. Without these core competencies, particularly grant writing, it is evident that an AHEC can merely maintain its current level of existence rather than expand its endeavors and meet new challenges. Newer AHECs must place more emphasis on skill building and technology development to better prepare themselves for the future.

The Comprehensive Performance Management System and Uniform Progress Report (CPMS/UPR) is a “work in progress” which will potentially measure the Bureau
of Health Professions’ goals of improving workforce quality, supply, and distribution of health professionals. In addition to benefiting federal-level projects, it also has the potential to provide AHECs with their own ready-made, self-assessment tool. However, at this time, there is little consensus that the CPMS/UPR is informative, useful, or accurate across AHECs. Instead, the AHECs need more standardized reporting requirements to make tracking their programs, students, and preceptors more of a priority. While needing uniform quantitative measurements, the AHECs unanimously expressed their concern for the data’s ineptitude of relaying the qualitative impact that the programs are having on their service areas, in their communities, and with their partners. Finally, there is no common or apparent denominator that is used to measure effectiveness; suggestions have included total under-served populations, total federal dollars, and total population.

In order for AHECs to measure their own impact, they need to have strong, standardized monitoring and tracking systems in place, however we observed that their evaluative methods were very piecemeal and at times, informal if they even existed. Barriers to such monitoring include inadequate resources, available staff time, and lack of skill capacity among staff members. Finally, collecting health workforce data stems from the need for effective data collection by the AHECs, however the AHECs varied on their varied on their opinions about the need for and quality of workforce data.

**Partnerships**

There are many unique patterns of AHEC state-government relationships and they can best be divided into those states where there are competing medical education networks and those that have a single or dominant structure of medical education. The state governments pay more or less attention to the AHEC systems as partners in their mission to support professional education in health care depending on the degree to which the AHEC leadership, both at the Program and Center level, is engaged with statewide policy making. There are examples of AHEC system(s) that are largely external to public policy making but which have taken an entrepreneurial approach to meeting market needs for health professionals. More intense state involvement may
allow boundaries and borders to be drawn where there are competing systems allowing for cooperation or a dynamic tension.

At the community level, AHECs provide an important neutral role that was often described as the “glue” or the “bridge” between the academic medical Center and/or Program Office and the needs of the local communities. In some instances, the closeness of AHEC Centers to communities allied them more closely with stakeholders who see universities as distant and not relevant to their needs. Some AHEC Programs, on the other hand, may tend to be more responsive to the university missions and may tend to reflect those priorities more. This contrast may have been the core of the apparent friction between AHEC Centers and AHEC Programs that has been described by some informants.

Center/community relationships were strong in all AHECs that were site-visited. Center Directors relied heavily on their boards of directors as a link to the communities they serve. This seemed true regardless of whether the Center had a legally constituted governing board or only an advisory board (i.e., whether the Center was legally incorporated). Some boards appeared to be more independent than others. That is, some boards appeared to be more willing to play an active role in shaping the agenda and holding the Center Director accountable for that agenda. Other boards, by contrast, seemed more responsive rather than proactive, focusing mostly on fulfilling their fiduciary duties. Even in the latter cases, however, Center Directors and board members generally agreed that the board served as an important link to the community and that the Center Director looked to the board to serve as the eyes and ears of the AHEC.

AHECs partner with a wide range of state and federal agencies. A partial list of agencies and programs includes State Office of Rural Health, State Office of Public Health, State Office of Mental Health, State Department of Agriculture, National Institute for Occupational Safety and Health, Federal Emergency Management Agency. We observed relatively little competition between AHECs and other related programs or agencies with complementary missions. In fact, AHECs often leveraged the resources of related programs such as National Health Service Corps, and Center for Excellence in Women’s Health through collaboration.
We also observed active partnerships between AHECs and community health centers, federally qualified health centers, and migrant health centers. Such partnerships seemed natural to study participants given the complementary missions of AHECS and these organizations. In the words of one study participant, “AHEC is a valuable tool at the local level to provide training and educational assistance. They also assist as a resource in staffing (helping to hire and find) at the local level. They help us connect with schools that produce clinicians that could work in our facilities. They are a health education resource in each region for educational and training programs. They have a multitude of resources for recruitment and retention. They become a virtual catchall for the under-served, rural communities and urban centers…. I think that we need the AHEC Program around to help us with our mission, which is to provide care to under-served populations. We are targeted to provide care and assistance in under-served communities and AHEC plays a role in this. They are a great expenditure of taxpayers’ dollars. I can speak to their good works.”

AHECs provide a unique and valuable infrastructure for “rolling out” a wide range of federal and state programs targeting tobacco cessation, bioterrorism, HIV/AIDS education, disaster preparedness, migrant health, other workforce development, professional education, and health promotion initiatives. AHECs have established relationships in local communities built on trust and demonstrated performance. State and federal agencies find that they can reach communities faster and with fewer bureaucratic hassles if they use AHEC as a platform. This unique role also creates challenges in the sense that AHECs must balance responsiveness to state and federal agencies with adherence to their core mission. AHEC partnerships are built and sustained on the basis of the personal relationships that Program Directors and Center Directors have built over time with community partners, academic partners, and policy makers. These personal relationships bring opportunities to AHECs and, conversely, open doors for AHECs.

Summary

The evaluative study reinforces the often-heard statement that “once you’ve seen one AHEC, you’ve seen one AHEC.” However, there are important common threads that
bind these organizations and systems together and makes them more alike than unlike. These are complex inter-organizational entities that mix history, local conditions, and national priorities in unique combinations to achieve social and professional change. They do share a relatively well-stated and recognized mission, which is to support the education and placement of primary care health professionals and other health professionals to care for under-served populations. That mission is well-understood at all levels of the AHEC structure despite its lack of complete recognition within its host or partner institutions and among its primary clients—health professional students. There was clear evidence from the focus groups and from interviews with key players in the health professional training field that “brand-awareness” of AHECs and their mission remains relatively low at local, state, and national levels.

AHECs are clearly inter-organizational structures. Lessons learned from other fields and systems that involve inter-organizational relationships are applicable to AHECs. These inter-organizational alliances that are developed with the AHEC as the stimulating agent are heavily dependent upon a complex web of alliances and agreements. To be successful, AHECs must manage and facilitate varying degrees of interdependency and commitment among the elements that make up health professions education and which provide services to communities with shortages of health professionals. They must work at an individual-organization-community level to develop comprehensive programs to address local educational and health care needs through activities and services which are actually delivered at that level. At the same time, they must work with and within centralized institutions to adapt their internal activities, such as curriculum and policy, to the mission of the AHECs and the communities they serve. A key finding of the evaluative study is that partnership does make a difference and that partnerships fostered using the AHEC model have been mutually beneficial to the parties involved. That benefit explains the persistence of this somewhat fragile inter-organizational form.

The evaluative study also has learned that the measurement of the productivity of educational and training systems and institutions is complex and requires precise quantification, however, the success of the AHECs is equally dependent upon their production of viable inter-organizational linkages as well as trained professionals who
will care for the under-served. The site visits revealed how diverse these alliances are and how difficult they are to count in any meaningful way, but they are necessary to the primary goals of the AHECs: the production of an effective, appropriate health care workforce for the nation.
Introduction

In 1998, Congress re-authorized the Area Health Education Centers (AHEC) Program, as part of the Health Professions Education Partnerships Act (P.L. 105-392, Section 751). That legislation described AHEC’s mission: “To enhance access to quality health care, particularly primary and preventive care, by improving the supply and distribution of health care professionals through community/academic partnerships.” The Senate Report accompanying P.L. 105-392 restates these general goals for the program and directs the Health Resources and Services Administration (HRSA) to: “conduct an evaluative study of Area Health Education Centers (AHECs) to identify key factors, characteristics, and methodologies employed by successful AHECs; and factors, barriers and impediments in areas where AHECs have not been able to cover their defined service areas, to involve other health professions, and to maintain an interdisciplinary focus. The results of the study should be used to define further the selection criteria and program requirements essential for successful AHEC operations and to assure effectiveness in providing primary care to under served areas.” This report is a response to that Congressional request.

A. Evaluative Study Task Order

In May of 2001, the BHPr entered into a contract with HSR, Inc. and its subcontractors, the University of North Carolina at Chapel Hill (UNC) and Research Triangle Institute (RTI) to conduct that study. An evaluative study...
team was formed under the direction of senior researchers from HSR, RTI and UNC.

HRSA’s request for an evaluation was based upon the work of an external AHEC Evaluation Study Advisory Committee (ESAC) convened by the AHEC Branch to develop guidelines for an evaluative study. That group – consisting of AHEC Center and Program Directors, AHEC Branch staff, and key consultants – met monthly from the fall of 1999 and continued to serve as a technical advisory committee through the life of the evaluative study. The advisory committee participated as observers in the data collection, commented on draft materials developed as part of the study, and discussed the design and conduct of an evaluative study. The ESAC created a draft listing of characteristics of successful AHEC Programs and affiliated Centers, suggesting three general domains to be assessed: organizational, programmatic, and financial soundness. The evaluation team sought to assess all three of these characteristics at three different levels of analysis, i.e., at the university level, among collaborations, and at the community level. The list helped the evaluative study team ensure that the evaluation design was relevant to the concerns of the AHEC Program’s principal stakeholders and focused on those particular elements of the program that deserved closest attention.

B. Key Questions for the Study

In the request for proposals (RFPs), the evaluative study team was charged with focusing on two key questions:
(1) What are the key factors, characteristics, structures, and processes employed by successful AHECs?

(2) What are the factors, barriers, and impediments in areas where AHECs have not been able to cover their defined service areas, to involve other health professions and maintain an interdisciplinary focus?

The Task Order Scope of Work also discussed the conceptual framework developed by the external AHEC Evaluation Study Advisory Committee and suggested that it be a starting point for the development of an evaluative study. That framework is summarized in the figure below. It describes a basic program logic for the AHECs and Health Education Training Centers (HETCs) that emphasizes the role of organizational factors and partnerships in achieving program goals. The evaluation planning developed by the UNC-RTI-HSR team reflected that emphasis through the explicit use of organizational theory and inter-organizational concepts.

**Figure 1:**

1. Organizational (Partnership)  
2. Educational Interventions (Programs)  
3. Community Impact (Improved supply distribution, retention)

As of September 2001, there were 43 operating² AHEC Programs. These were divided into two types: 16 “basic/core” AHECs and 27 “model” AHECs.

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² Listing provided by AHEC Branch, BHPt, HRSA current to September 4, 2001.
The basic AHECs had 42 affiliated Centers (36 funded with federal support and 6 with state and local funds); the model AHECs had 123 affiliates. In addition, there were also five Border and five Non-Border Health Education and Training Center Programs (HETCs). All of these entities formed the universe of the program that was the focus of this evaluative study.

The study team was also given a set of guiding parameters by the ESAC which were embedded in the specific tasks. The ESAC limited the design to a case study structure for primary data collection. The Task Order Scope of Work restricted the number of cases to Programs in 9 states and specified that primary data collection had to be via site visits to AHEC Program and Center offices and to community and academic partners of those 9 Programs. Further, one of the Programs was to be an HETC. The study team was also charged: (1) to make use of secondary data including the recently established Comprehensive Performance Management System/Uniform Performance Reporting (CPMS/UPR) system; and (2) to conduct focus groups with key stakeholders and students who had received training within an AHEC Program or system.

C. Organizational Focus of the Study

The study team used this guidance to develop an evaluation design that met the requirements and restrictions of the Task Order. That design relied on a conceptual model based upon inter-organizational analysis, a theoretical framework that has been applied in many recent studies of complex systems of care. (Aldrich 1979; Alexander et al. 1996; Alter and Hage 1993; Barnsley,
The focus of inter-organizational theory and research is on the origins, patterns, and consequences of interaction between independent and otherwise autonomous organizations linked together to solve complex problems or to attain joint goals. This perspective is especially appropriate in evaluating AHECs because they are an inter-organizational partnership between health science centers (HSCs), local teaching centers and institutions, communities, and associated health professionals. From an inter-organizational perspective, to be successful, AHECs must manage and facilitate varying degrees of interdependency and commitment among component organizations. They must simultaneously work with individual component organizations to develop comprehensive programs to address their local educational and health care needs through activities and services that are actually delivered at that level.

The evaluation team assumed initially that this kind of partnership arrangement actually does make a difference and that it is mutually beneficial to the parties involved. Hence, the primary goal of the analysis was to identify those specific characteristics of the organizational structures of the AHECs that facilitated the partnerships and, in turn, the outcomes. In the development of the evaluation study plan for the current work, the team focused more on an integrated model for the AHEC process where there were multiple feedback
loops with the community providing feedback to the design of the educational programs which in turn affected the organizational structure and process of the AHEC Programs and Centers. That conceptual model, which extends the original model developed by external AHEC Evaluation Study Advisory Committee is illustrated in Figure 2.

Figure 2. 2002 Evaluative Study Organizational Concept

The study team used this conceptual approach to frame its queries around the identification of feedback loops and interrelationships between the internal organizational and programmatic structures of the AHECs, seeking to learn more about and how these structures affected or were affected by their community and partnership relationships.

The Methodology section of this Introduction describes how the inter-organizational framework was translated into a data collection and data analysis plan. The evaluative study made use of a formative evaluation approach,
developing specific evaluation questions and criteria as more was known about the program. After developing a general study design based on the preliminary work of the advisory group and after review of prior evaluations, the team moved toward the development of interpretive themes and structures by posing 5 specific questions that seemed to be of paramount importance to the sponsoring agency and Congress. Those questions were crafted to help identify the characteristics of successful AHECs and the barriers to their success:

1. What are the developmental phases of AHEC projects from initiation, through expansion, to mature functioning or decline and demise? Successful development presupposes that participants understand and proceed through these phases, that they realistically characterize their progress through the phases, mark transition points, and anticipate future events (e.g., federal phase-outs) in sufficient time to mount appropriate action.

2. How do resource acquisition and use patterns and strategies affect AHECs institutionalization or prospects for viability? Presumably, the successful evolution of an AHEC follows a developmental path entailing an increasing proportion of the AHEC’s resources are garnered from the local, rather than the federal sources, through marketing of services and/or the creation of local constituencies that support AHEC activities. Such activities suggest that AHECs must develop new inter-organizational relationships.
3. What is the optimal range of variability in inter-organizational forms in terms of the relative dominance or autonomy of the inter-organizational partners? On one end of a continuum, the local AHEC may be a mere extension of the academic health center exhibiting no independent action. On the other end, an AHEC may have such a high degree of autonomy that its activities are virtually independent of the academic health center’s mission or activities. Interdependence is an optimal (but not always stable) balance between these two extremes.

4. What are the unique contributions of a community AHEC Center? Does the success of an AHEC depend on its visibility in projecting a “distinctive competence” among the local community health care professions education and community health resources?

5. To what extent have AHECs (of varying organizational designs and different inter-organizational structures) resulted in real institutional change?

D. Analysis: Within-case versus Thematic Approaches

Early in the evaluation process, it became apparent that there were two distinct ways to interpret and compare the information: a “within-case” and a “thematic” approach. A within-case approach describes findings that are specific to each AHEC. The original Odegaard (Odegaard 1980) study used the within-case approach and, to some extent, so did the 1990 American Institutes for Research (AIR) study (Fowkes, Campeau, and Wilson 1991). It consists of
comparing these “vertical chapters” to each other, highlighting successes in particular areas for each AHEC. A thematic analysis, on the other hand, focuses on discovering common themes emerging from across the different site visits. This approach charges site visit teams to look across their site visit reports for common elements and patterns in organizational, programmatic, funding and impact issues, and to create syntheses that highlight cross-case comparisons of characteristics of successful AHECs and barriers to success. This approach results in less emphasis on the specifics of each site and is concerned mainly with those topics that seem to affect success. The study team chose to work using the thematic approach and then moved on to developing specific guidance for identifying and grouping the themes. That process resulted in a preliminary structure that drew on some of the central concepts of organizational theory to relate the data to interpretive themes (See Appendix A1, Success Indicators Data Sources, and Appendix A2, Success Strategies Data Sources). As the study team entered the field, seven thematic groupings were used to organize the data and information: (a) history, (b) mission and goals, (c) programmatic activities, (d) funding, (e) organization and structure, (f) administration, and (g) partnerships.

This report is structured around those headings and brings together clusters of thematic, observational, and summary statements about the AHEC Programs and Centers.
Review of Recent Evaluations

A. Inspector General's Report, 1995

The most recent evaluation of the National AHEC Program was conducted by the Office of the Inspector General (OIG) of the U.S. Department of Health and Human Services (DHHS) in 1995 (Office of Inspector General 1995). That assessment focused on specific issues affecting AHECs: health information resources, telemedicine, managed care, quality of care and practice guidelines, and continuing education (CE). OIG staff examined applications for funding from 13 AHEC Programs in the 1991-1994 period and those from 10 model AHECs in 1994. They also reviewed data describing CE activities that all AHEC Programs submitted to the BHPPr for fiscal years (FYs) 1991-92 and 1992-93. OIG staff also conducted telephone interviews with directors and/or staff from 19 AHEC Programs; and sited visited four AHEC Programs.

This brief study, based on a six-month review found that: (1) AHECs enhance rural practitioners' access to health care information by linking them with medical library resources, including professional staff, computer equipment and services, and practitioner training; (2) AHECs' CE courses are wide-ranging and are used by both community-based and non-physician practitioners; (3) AHECs do not generally educate practitioners about innovations in health care delivery, such as clinical practice guidelines or managed care; and (4) AHECs use telecommunications to support isolated practitioners, but do not take full advantage of this technology. The report recommended that the role of AHECs
be strengthened by facilitating their ability to focus support services on three areas: clinical practice guidelines, managed care, and telecommunications.

B. American Institutes for Research (AIR) Evaluation

The American Institutes for Research (AIR) conducted the most recent full-scale, formal external evaluation between 1988 and 1989 (Fowkes, Campeau, and Wilson 1991). That study used extensive interviews with program participants and a collateral survey of AHEC Program Directors to develop a series of thematic interpretations of the progress and problems of the AHEC system. The findings focused on AHEC’s efforts in several key program areas: providing outreach/access to educational opportunities; capacity building; brokerage, and management/implementation of demonstration programs and models. The AIR evaluation described “unique functions” of AHECs and the measures identified with successful AHECs.

The impacts and outcomes of the AHECs described in the 1990 AIR evaluation agree with the 1995 OIG report and are reiterated in the descriptions of program accomplishments by the AHECs themselves. AHECs have increased access to health care services by teaming with delivery systems that reach the under-served. Other unique and significant contributions include strengthening human service institutions by improving training opportunities and upgrading skills; enabling once-isolated health science centers to connect more closely with their local communities; and allowing students and residents a chance to broaden their experiences by giving them an opportunity to explore options that
were not open to them earlier. These impacts are consistently observed in evaluation reports from the national program, from state programs, and from individual centers and projects (Cranford 1993; Fowkes, Campeau, and Wilson 1991; Fryer et al. 1994; Hagins 1992; Hartwig and Landis 1999; Hester and Watkins 1992; McMillan 1996; Office of Inspector General 1995; Root and Stableford 1999).

The 1990 AIR evaluation also identified five measures of successful AHECs:

1. Established new organizational structures in the state, academic world and community that persist in AHEC-like projects.
2. Established new educational programs that have been institutionalized.
3. Improved the status of primary care in medical schools.
5. Demonstrated evidence of improved access and quality of care in target areas.

Their report emphasized AHEC Programs at a time when there were substantial policy changes being discussed or moved into place. These include the development of the HETC Programs and the creation of “model” and “basic” AHEC funding structures.

C. Responses to Evaluation

The OIG’s report was spurred by a perception that the AHEC Programs might not be fulfilling their capacity in the areas of health information resources,
telemedicine, managed care, quality of care and practice guidelines, and continuing education. The AHEC Program, in turn, reiterated its goals within those areas and issued program directives or provided guidance to the programs in these areas. There were no major structural changes within the program.

The AHEC and HETC Programs are considered unique and the development of comparative performance measures or benchmarks has not been able to make use of comparable systems or organizations within government or the private sector. Likewise, there has not been any summary discussion of the degree to which the AIR or OIG reports have affected the AHEC Program and its operation. The development of a structure for developing external feedback or assessments of the AHEC and HETC Programs has not been raised in any formal way. This evaluative study did identify emerging alternative paradigms and organizational structures that have roles and responsibilities that begin to parallel the AHECs and HETCs. Notably, the Community-Campus Partnerships for Health (CCPH) projects and affiliated programs are in many ways involved in much of the same work at the AHECs (Calleson, Seifer, and Maurana 2002). Those programs are often intertwined with the AHECs, even dominated by them but are clearly separate from the formal AHEC structure (Seifer 1998). The CCPH initiative is developing and was not used as a formal point of comparison for the AHECs and their performance, but its emergence shows that the concepts of community-based health professional education is more widely applicable than the traditional AHEC and HETC approach.

AHEC Evaluative Study, 2002
D. Uniform Data Reporting

Both AHEC and HETC Programs are subject to the provisions of the Government Performance and Results Act (GPRA) enacted in 1993 “to assure Federal accountability for achieving program results.” The BHPPr created an “outcome-based performance system known as the Comprehensive Performance Management System (CPMS).” That system was intended to reflect agency focus on improving the “distribution, diversity, and quality of the healthcare workforce.” The documentation directing the AHEC and HETC grantees to submit required data defines the national workforce goals of the BHPPr:

1. “To improve access to quality health care through appropriate preparation, composition and distribution of the health care workforce.”

2. “To improve access to a diverse and culturally competent health professions workforce.”

The CPMS data indicators, common to all BHPPr programs, are intended to reflect the achievement of those goals and the data are to be reported annually on a Uniform Progress Report (UPR).

Methodology

A. The Site Selection Process

Random sampling of sites for case studies was not feasible for the project due to rules set by the Office of Management and Budget (OMB) that limit the number of sites and the available budget for travel. The heterogeneity of AHECs

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3 From the AHEC Basic/Core Application Package. AHEC Branch, HRSA, 2001.
also made it impractical to select sites by random sample, regardless of the OMB rules. Therefore, we stratified the AHECs according to selected organizational characteristics and then randomly selected within these categories. The relatively small number of available cases in our proposed study inherently limited the number of criteria that we could use to guide the sampling process. The AHECs were selected using the following factors in the order listed below:

8. Model versus Basic (4 model, 4 basic)

9. Higher medical emphasis versus lower (4 higher medical, 4 lower)

10. Osteopathic representation (1 osteopathic systems, 7 allopathic)

11. Geographic distribution (2 South, 2 Mid-Atlantic, 2 West, 1 Northeast, 1 Midwest)

12. Focus on different minority groups and linguistic diversity (African-American, Hispanic, Native American, and migrant centers or programs are included)

13. Urban-rural foci (3 urban Centers/Programs, 1 rural only, 4 urban-rural)

14. Representation of various Center types (hospital, 501-c-3, other)

The project evaluation team also considered, but rejected as fixed selection criteria: size (number of Centers, trainees), proportion of trainees in rural sites, and geographic scope (multi-state or single state) as other possible stratification criteria.
Arranging the selection criteria in a two-by-two matrix, eight AHECs were selected as site visit locations by the study team, in consultation with the National AHEC Program Office and the external AHEC Evaluative Study Advisory Committee. AHECs chosen for site visits were in the following states: Arizona, California, Illinois, Louisiana, Maryland, Pennsylvania, South Florida (Tampa), and Vermont. In addition, in accordance with the HRSA directive, one HETC was chosen - the Health Education Training Centers Alliance of Texas (San Antonio, Texas). This choice was made based on preferences for a border HETC Program, one that offered a range of organizational approaches and diversity in target populations and communities.

B. Data Collection Tools

Before conducting the site visits, staff worked to develop data collection and analysis tools. Copies of the data collection tools described below are included in appendices to this report.

1. Advance Survey and Background Materials

The study team developed an advance survey instrument and mailed it to Program Offices and the Centers about one month before each schedule visit. This survey requested information about the Program’s and Centers’ organizational characteristics; programmatic foci; advisory board structure and membership; key program partners, financial data, and environmental context, i.e. health care issues facing the AHEC. This advance survey tool is included as
Appendix B. In preparation for site visits, Sheps Center staff extracted, assembled, and analyzed important background material such as:

- AHEC Program’s grant application to HRSA
- A summary of the political/legislative climate in the state using information from the National Conference of State Legislature’s (NCSL’s) health policy tracking service
- A fact sheet with data from the Area Resource File (ARF) on the demographic composition, health and employment status indicators, and supply of doctors, primary care doctors, dentists and physician assistants (for both the state overall and each of the Center’s service areas)
- Maps displaying health professional shortage areas (HPSAs) and information from the ARF data described above
- Summaries and analyses of 2000 CPMS/UPR data
- AHEC Program and Center brochures, literature and other material derived from literature searches, the AHEC Programs’ websites

Sheps Center staff assembled notebooks containing the above material as well as AHEC Program Office and Center leaders’ responses to the advance surveys. Appropriate notebooks were given to site visitors including any external evaluation committee members who were on the site visit team. Some materials in the notebooks were provided to the AHEC Programs’ staff who were given the opportunity to review the notebooks and retain a complete notebook if they wished to do so.
2. Interview Protocol

The study team developed structured interview protocols for the site visits that contained questions about the AHEC’s or HETC’s history, mission and goals, programmatic activities, funding, organization and structure, administration, and partnerships. Separate protocols containing the seven component areas were tailored to seek data from specific AHEC stakeholders. Ultimately, six separate protocols were created to collect data from each of the following groups: AHEC Program Directors, Program staff, Center Directors, Center staff, community partners and academic partners (See Appendix C for the interview protocols). The protocols for the HETC were modified slightly to more appropriately address HETC organization and activities. The protocols were pilot tested on various individuals affiliated with the North Carolina AHEC and were modified according to feedback received during these pilot interviews. To increase the inter-site visitor reliability of data collected, all staff participating on the site visits attended a half-day orientation on the interview protocols.

A separate protocol was developed for the student focus groups that took place during the site visits; this topic guide focused on their choice of AHEC placement, their experiences, and their plans for future placements or practice settings. This student focus group protocol is located in Appendix D.

Usually two site visitors interviewed on a one-on-one basis (with the exception of some interviews with Board members and focus groups with students). One site visitor asked the protocol questions while the other either
recorded the answers directly into a laptop computer or took comprehensive
written notes that were later entered into the computer. Site visitors completed a
contact summary form (See Appendix D) immediately following the interviews
that highlighted the main issues and themes that had emerged during the
interview, the interviewer’s key observations from each of the interview
component areas, and new or unanswered questions that had arisen from the
interview.

C. Focus Group Methodology

To provide additional qualitative information about the research
questions, and to draw from a larger pool of AHEC representatives, HSR, Inc.
conducted focus groups with individuals representing a wide range of
professions and states. The objectives of the focus groups were to learn about the
key factors and characteristics of AHECs affecting their level of success, as well
as any barriers or challenges AHECs face in the delivery of services.

1. Planning the Focus Groups

HSR planned to conduct focus groups during the National AHEC
Organization (NAO) meeting held in Little Rock, Arkansas on April 22-24, 2002
(originally scheduled for September 24-26, 2001). Since individuals from across
the country attend the annual conference, it provided an ideal opportunity to
recruit individuals with a wide geographic representation. Over the course of
the 2-day conference, HSR staff estimated that four focus groups could be
conducted each day for a total of ten groups.
HSR designed a draft focus group moderator’s guide and circulated it among RTI and Sheps Center staff for comment. Because several site visits occurred before the focus groups could be conducted, HSR staff incorporated themes identified in early site visit reports into the focus group protocols in order to elaborate on or further probe into initial findings.

2. Recruiting Participants for the Focus Groups

Prior to the NAO meeting, HSR obtained a complete list of the 650 meeting registrants from the Little Rock Convention and Visitors’ Bureau and contracted with a professional focus group recruiting firm, Metro View Research (MVR) Associates of Ohio, to contact and screen each registrant for participation in the groups. With input from UNC, HSR developed a standard screening questionnaire used by MVR to ascertain the role of each potential focus group participant in the AHEC and his/her preferred focus group time slot. Individuals were asked what AHEC they were associated with, their position and discipline, and whether or not they would be willing to participate. To maximize representation, if a potential focus group participant was from a state visited during a site visit, the screener ensured that the individual had not already been interviewed during the visit. Using all this information, focus group participants were selected and assigned to one of nine groups based on their positions:

- (2) AHEC Center Directors groups (8 and 7 participants, respectively)
• (1) AHEC Program Directors group (8 participants)
• (1) AHEC Board Members group (8 participants)
• (1) AHEC Assistant/Associate Directors group (7 participants)
• (1) AHEC Education Coordinators group (6 participants)
• (1) AHEC University Administrators/Faculty group (8 participants)
• (1) AHEC Community Liaisons/Coordinators group (9 participants)
• (1) AHEC Career Services Coordinators group (3 participants)

Fourteen individuals were invited to attend each focus group to ensure sufficient participation, but no more than nine were included in each discussion. Confirmed participants were faxed a reminder letter the week before the groups convened.

3. Conducting the Focus Groups

HSR staff moderated all focus groups and staff from the Sheps Center assisted with some. Each group was conducted in conference rooms at the hotel where the NAO meeting was being held, and lasted from 1 to 2 hours. A series of open-ended questions were presented to the group participants who were encouraged to respond and discuss. The protocols served as a guide for the moderator to ensure that participants in each group were asked about similar topics. These topics included:
• AHECs’ development and activities, including the major activities of the AHECs, how those activities support the goals of diversity, distribution, and quality, and how and why AHECs’ activities have changed over time;

• Organizational structures and partnerships, including the relationships among the Programs and Centers, the Centers and communities, and the Centers and universities;

• The contributions of AHECs, including the major benefits of the AHECs to the institution, the community, and students and residents; the major factors that facilitate and impede these contributions; and methods for measuring AHECs’ accomplishments; and

• The long-term impacts of AHECs, including their effects on the training of students and residents, on health planning and health services at the community level, and on the distribution of providers, as well as the barriers and challenges to these changes.

All of the groups were audio taped.

4. Analysis

After the groups were conducted, the focus group tapes were transcribed. The discussions from the nine groups were reviewed by HSR to develop a coding system containing about 40 codes that closely mirrored the topics included in the protocols. When the coding scheme was finalized, the remaining transcripts were coded.
The coded transcripts were then entered into NUD*IST, a qualitative research software program. HSR researchers retrieved and sorted passages from all nine groups. Staff then summarized the information gathered during the groups by subject matter, examined the ways in which participants’ opinions varied by audience type, and identified representative quotes for inclusion in the report selected to provide valuable insight into the opinions and attitudes of discussants and specific examples of the findings.

D. Overview of the Nine Site Visits Conducted

The nine sites visited, in order, were Pennsylvania, Vermont, California, Illinois, Florida, Texas, Louisiana, Arizona, and Maryland. Sheps Center and RTI staff conducted site visits collaboratively and, where feasible, were accompanied by an external evaluation committee member. These included Nancy Sugden (California site visit), Esperanza Garcia-Walters (Vermont site visit), Virginia Fowkes (Arizona site visit), Julia Reed (partial Maryland site visit), and Jeff Butler (Texas site visit). The scheduling of the other site visits precluded participation by an advisory board member. Site visits included three to six site visitors and generally covered three days, depending on the size of the AHEC Program. The site visit team typically spent the first day of the trip at the Program Office meeting with AHEC Program staff, academic partners, and statewide AHEC partners. The site visitors then divided into two teams to travel to the AHEC Centers, where they spent at least one day meeting with Center staff and community partners. A portion of the time during the site visit was
also spent conducting focus groups of students whose rotations or field experience were coordinated through the AHEC. The following table (Table 1) summarizes the site visits.
**Table 1: Summary of Site Visits**

<table>
<thead>
<tr>
<th>Month of Site Visit</th>
<th># Site Visitors</th>
<th># Days</th>
<th># Centers</th>
<th>Number of Contacts*</th>
<th>Focus Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pennsylvania</td>
<td>January</td>
<td>6</td>
<td>3 of 7</td>
<td>35</td>
<td>Y</td>
</tr>
<tr>
<td>Vermont</td>
<td>February</td>
<td>4</td>
<td>2 of 3</td>
<td>51</td>
<td>Y</td>
</tr>
<tr>
<td>California</td>
<td>February</td>
<td>3</td>
<td>5 of 8</td>
<td>38</td>
<td>Y</td>
</tr>
<tr>
<td>Illinois</td>
<td>March</td>
<td>4</td>
<td>3 of 3</td>
<td>30</td>
<td>Y</td>
</tr>
<tr>
<td>Florida</td>
<td>March</td>
<td>4</td>
<td>2 of 2</td>
<td>29</td>
<td>Y</td>
</tr>
<tr>
<td>Texas</td>
<td>March</td>
<td>4</td>
<td>1 of 1</td>
<td>21</td>
<td>N</td>
</tr>
<tr>
<td>Louisiana</td>
<td>March</td>
<td>4</td>
<td>2 of 4</td>
<td>29</td>
<td>N</td>
</tr>
<tr>
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<td>April</td>
<td>2</td>
<td>1 of 5</td>
<td>21</td>
<td>Y</td>
</tr>
<tr>
<td>Maryland</td>
<td>April</td>
<td>3</td>
<td>2 of 2</td>
<td>20</td>
<td>N</td>
</tr>
</tbody>
</table>

**Total** 21 304

*A contact is an individual person. Contacts include AHEC Program staff, AHEC Center staff, academic partners, community partners, and Board members. Students interviewed during focus groups are not included in this number.*
Chapter 1: History and Background

The evaluative study team visited first-, second-, and third-generation AHEC Programs. The histories of these programs involve periods of growth and decline, prosperity and poverty, and many of the programs no longer look as they did at their birth. Many have had similar patterns of evolution in their organizational structure, though each has experienced unique events that shaped their program. Our site visits brought to light similarities and differences in the life cycles of AHEC Programs that help to explain their relative successes and shortcomings.

The life-cycle model of partnership development provides a useful framework for thinking about the developmental challenges that AHECs face (Weiner, Alexander, and Zuckerman 2000; D'Aunno and Zuckerman 1987; Shortell and Cave 1998). The life cycle model suggests that collaborative partnerships (like AHECs) pass through four stages and that each stage introduces distinctive organizational challenges. In the emergence stage, partnerships focus on start-up issues such as defining the partnership's purpose, recruiting a core set of partners, clarifying the interests and expectations of partners, and building initial working relationships. In the growth phase, partnerships seek to manage growing complexity and interdependence by developing coordination mechanisms, establishing conflict resolution procedures, and reviewing and evaluating partnership activities. Partnerships also seek to expand their reach and understanding of local and regional
problems by recruiting more diverse statewide and community partners. In the 
maturity stage, partnerships focus on maintaining partner commitment by 
creating value, managing participation costs, and building reciprocity. 
Partnerships also seek to create sustainability by tightening linkages among 
partners and developing future leadership. In the critical cross-roads stage, 
partnerships face the difficult tasks of balancing autonomy and authority, 
balancing individual and collective interests, and balancing the pull for greater 
interdependence exerted by the partnership and the push for greater 
independence exerted by partners. For purposes of exposition, our report 
combines the maturity and critical crossroads phases.

A. Life Cycle Stage: Emergence

Successful AHECs emerge and take root in host institutions with strong 
mission commitment to training primary care health professionals and 
enhancing access to care for rural under-served populations. Mission 
commitment defines an organization’s identity and purpose. Strategic goals 
change as organizations respond to changing market conditions. Mission 
commitment, by contrast, turns a value into an essential and enduring aspect of 
an organization’s character (Collins and Porras 1996).

Several AHECs that we visited emerged in host academic medical centers 
(AMCs) that showed a mission commitment to training primary care health 
professionals and enhancing access to care for rural, under-served populations 
that predated the AHEC’s founding. The mission and values of the State E
Health Science Center (HSC), for example, provided fertile soil for the State E AHEC to take root and flourish. As the largest academic HSC in the state, and the only publicly funded one, the State E HSC views its mission as that of training health care professionals to provide care to over one million people in State E. Both are committed to enhancing access to care to a predominantly rural, poor population. The Associate Dean for Medical Affairs sees the mission of the State E HSC and AHEC as interwoven. As he saw it, the State E HSC and AHEC do different things, but their missions are compatible. A similar sentiment is expressed in the 2001 report of the State E Medical Education Commission. According to the report, for the past 10 years, the State E HSC has committed itself to increasing the recruitment and retention of primary care physicians.

Other AHECs that we visited emerged as part of a redirection of the mission of the host academic medical center toward training primary care health professionals and enhancing access to care for rural, under-served populations. For example, the AHEC Programs in State G emerged as both a result and a reflection of a profound change in the mission and focus of the host academic medical center. The University of State G had just undergone a medical school curriculum redesign, the first in 20 years, and was trying to modify its “State Capital-focused” image. AHEC appealed as a vehicle for training health professionals in a new (rural) setting and for assisting local communities in recruitment efforts.
Similarly, the AHEC Programs in State F and State I resulted from efforts by their founding academic medical centers to reestablish their primary care roots and expand community-based education. In the early to mid-1990s, for example, State I Medical University substantially revised its mission to focus on primary care. Reflecting this reorientation, the Dean established a Center for Primary Care, secured a grant from the Robert Wood Johnson Foundation to revise the medical school’s curriculum, and established the State I AHEC. When the Dean established the Center for Primary Care, he declared that, by 2000, 50 percent of medical students would enter primary care residencies. Last year, 60 percent did. The State I AHEC appears to be thriving within a favorable host environment. It seems well integrated with related primary care research, education and training activities occurring at the school and it enjoys strong political support and visibility within the medical school’s administrative structure.

Finally, in some cases, AHECs became rejuvenated as the host academic medical center renewed its institutional commitment toward training primary health care professionals and enhancing access to care for rural, under-served populations. State D offers an illustration of such revitalization. The University of State D Medical School has invested in a revised curriculum that starts to emphasize community-based education. Stakeholders articulated a clear sense that they are training physicians for practice in the state of D. While this change comes decades into the State D AHEC Program, it typified the symbiotic
relationship between the AHEC and its host institution. As the two entities continue to grow, they often converge on core values and mission as the result of their interaction.

Successful AHECs can emerge and take root in public or private university settings. The public-private ownership distinction seems less important than mission and value congruence between the host institution and the AHEC. The success of an AHEC Program did not appear to vary systematically as a function of the public or private status of the host institution. We observed thriving and struggling programs at public university settings as well as thriving and struggling programs at private university and non-university settings (i.e., not-for-profit corporations).

Successful AHECs garner the participation and support of other academic medical centers in the state. Successful AHECs can emerge and become established within a single, host institution or within a consortium of academic medical centers. Collaboration among multiple academic medical centers is not only possible, but also commonly observed. Among the sites visited in this study, examples of such collaboration include the State B AHEC, the State I AHEC, and the State A AHEC. Although public universities typically serve as the host institution for most AHEC Programs, the structure and politics of academic medicine in a given state sometimes requires that the AHEC take the form of a separate, not-for-profit consortium. The State I AHEC and the State B AHEC have an identified lead institution and use steering committees, advisory
groups, and frequent inter-organizational communication to secure and coordinate the participation of multiple academic medical centers. By contrast, the State A AHEC and the State F AHEC took the consortium approach. History, politics, funding, and interdependence seem to shape the particular organizational structure in which the AHEC emerges. Interview participants stressed, however, that while organizational structure matters, the willingness and ability to collaborate with other, potentially competing academic medical centers matters more.

The State A AHEC Program Director best articulated this sentiment:

The Network was borne out of a partnership and founded on the principles of teamwork – working together to approach the legislature to advocate for the under-served…. We all sink or swim together. It’s an all for one and one for all.

AHECs face several challenges in securing, managing, and sustaining the involvement of multiple academic medical centers. These challenges include managing historical rivalries, competitive tensions, mission differences, and legal obstacles. Although we address them here, these challenges can emerge or re-emerge at any point in the life cycle of AHECs. The successful or unsuccessful management of these challenges can have profound implications for the development, performance, and sustainability of an AHEC.

The State E AHEC provides a useful illustration. According to some interview participants, the Medical School University was invited to join the State E University in forming the AHEC, but medical school officials declined the invitation. Although we could not corroborate this account, the well-known,
longstanding rivalry between the two universities no doubt played a significant role in the Medical School University’s absence early on. The two universities not only compete with each other athletically and academically, but also compete with each other as major health care providers in the greater city area. Although the Medical School is a private university, it also competes with the State E Medical School for legislative attention and political support. Although the Medical School University’s involvement in the State E AHEC remains low, the newly appointed Director of Family Medicine there is trying to build links with AHEC. He pointed to some tentative in-roads, but acknowledged a sense of resistance and seemed circumspect about the future. Organizational and cultural differences between the two academic medical centers also inhibit the scope and depth of collaboration in improving the supply and distribution of primary care physicians in the state. The State E Medical School accepts only in-state students to its medical school and emphasizes primary care. The Medical School University, on the other hand, accepts mostly out-of-state students and emphasizes specialty care. Moreover, the combination of historical rivalries, competitive tensions, and mission differences might also explain why the State E AHEC has only a limited relationship with the Medical School University’s School of Public Health, the only school of public health in the state. Although the preceding discussion focused on the State E AHEC, other AHECs visited during the study have faced, continue to face, or will soon face similar challenges.
Finally, our observations suggest that the geographic location of the AHEC Program matters to internal and external stakeholders. Locating the program in a central part of the state enhances accessibility to the program. Likewise, locating the program in a rural part of the state symbolically reinforces the mission focus on rural, under-served populations. For example, many interview participants felt that establishing the State I AHEC Program at the State I University School of Medicine, which is located in a rural and central area was a wise decision since it made sense logistically and had important symbolic value.

**B. Life Cycle Stage: Growth**

Successful AHECs have founding leaders who demonstrate vision, energy, and focus. They possess strong reputations, interpersonal skills, and political and social connections. Moreover, the founding leaders of successful AHEC Programs often have prior exposure to, familiarity with, and in some cases, experience in running AHECs in other states. These qualities, individually and in combination, stimulate the growth of an AHEC in multiple ways. For example, many consider the State E AHEC to be the brainchild of the former Dean of an urban School of Medicine. He arrived at the university from a state university medical school, where he had been heavily involved in the AHEC Program there. Upon learning that State E had no AHEC, he promptly spearheaded efforts to establish one. As a result of his dynamism and reputation, he successfully engaged the Dean of the (State) School of Medicine at
as well as the Deans of the State School of Nursing, School of Dentistry, and School of Allied Health.

Similarly, the State I AHEC was born out of “AHEC-like activity” that was begun in the Southwestern portion of the state. The current Program Director, who is also the Associate Dean for Primary Care and Chair of the Family and Community Medicine Department at the State I School of Medicine, originally recognized the need and appropriateness for an AHEC in his state. The Dean of the State School of Medicine and CEO of the affiliated Medical Center credits him as being “the catalyst” for the State I’s AHEC Program. The Dean himself, although relatively new to the state, has prior experience with the AHEC Program in another state. The Associate AHEC Director maintains the daily operations of the State I AHEC Program. A highly organized and assertive individual, she “plans, manages, and directs the AHEC Program.”

Finally, interview participants universally attributed the successful establishment and growth of the State G AHEC to the leadership skills and vision of their Program Director. Interview participants noted that Dr. (name omitted)’s leadership, energy, commitment, vision and political connections – as well as status as a long-time practicing primary care physician in State G – contributed significantly to her success in pulling together the constituencies and creating the partnerships necessary to get the State G AHEC off the ground and running. As one interview participant noted, “We have unique leadership. [Our Program Director] is an extraordinarily energetic person with the tenacity to get
things done,” such as influencing the state legislature, securing grant funding, and generating new programs. The Program Director’s vision, leadership, and persistence have played a critical role in the launch of the State G AHEC, which has grown to three Centers in just five years.

The leadership qualities of founding staff members at the Center level also play a key role in the growth and subsequent success of AHECs. The establishment and growth of AHEC Centers depends, in large part, on hiring Center Directors with entrepreneurial experience, personal dynamism, and strong local connections. Center Directors possessing these qualities actively seek collaborative opportunities, show creativity in securing and leveraging resources, and build lasting personal relationships. They also enjoy strong loyalty from their Center staff, as the following comment illustrates:

I know you are looking at the big picture. But, I would like to say this. If you are going evaluate the whole program, I have two words for you: (she names the Center Director). He is the most organized, go-getter, energetic, effervescent person. That’s the reason for success. If you don’t have leadership, you don’t have anything. That’s what I want to say.

AHECs face challenges in building bridges across disciplinary boundaries within academic medical centers and building collaborative networks within communities. Our findings suggest that, in many academic medical centers, little to no collaboration existed across disciplinary boundaries prior to the establishment of an AHEC Program. Founding AHEC staff could not rely upon an existing coordinating structure or history of cross-disciplinary collaboration. Instead, they had to build from scratch the interpersonal relationships,
communication networks, decision-making structures, and operating procedures
necessary to promote and maintain collaboration across disciplines within and
between academic medical centers. Commenting on the challenge of building
cross-disciplinary collaboration, one AHEC Program staff member observed:

(In terms of) as the medical school, I think the greatest change was convincing
them that we were not in competition with them, but we were there, you know
part of the family. Doors began to open for us. At first, they were kind of
suspicious…. (But) The relationship keeps being enhanced. Even more
departments are seeking us out. I get calls. The School of Allied Health calls and
says we would really like to do some continuing education. It’s nice when the
come to us. I would say that the attitude in the medical school itself is a big
turnaround. It takes time to change people’s attitudes. Now the AHEC has name
reputation. You have to really work at that.

Similarly, our findings also suggest that, in many communities we visited,
little or no comprehensive collaboration existed among hospitals, physician
groups, health departments, schools, and other common AHEC partners prior to
the development of the AHEC. Although collaborative relationships might exist
among dyads of organizations, Center staff had to build the network of
collaborative relationships upon which AHEC Programs and services depend.
This often proves challenging because some hesitation usually exists about the
motives and intentions of the AHEC and its affiliated academic medical center(s).
The development of the collaborative networks taught the AHECs to function as
neutral intermediaries between the universities and the community agencies.
Their roles then were transformed into communicating and negotiating agents.
This transformation into a trusted integrator and communicator is a key
transition for the AHEC Programs and Centers and the ability to maintain that
neutrality as well as to function effectively as an agent is a central characteristic of successful AHECs.

AHECs often face challenges in overcoming the distrust that community-based providers, provider organizations, and disenfranchised groups feel toward academic medical centers. In states where the host university had a public image problem, AHEC Program and Center staff had to invest significant effort to win the support of community-based providers and provider organizations. In one state that we visited, the university hosting the AHEC Program had a reputation for being focused solely on the community in which it was located. This represented a significant obstacle to overcome in recruiting local support for the first AHEC Center. Rural physicians and other healthcare providers were skeptical, viewing the AHEC as an extension of the university’s medical school and its faculty. They expressed concern that the AHEC Center would reflect the university’s priorities, not local priorities. Provider organizations were also wary, viewing the AHEC suspiciously as a possible beachhead for the host university’s health care delivery system – the “800 pound gorilla” – to encroach upon their market. Over time, AHEC Center staff succeeded in changing these perceptions by organizing the AHEC Center as a separate legal corporation and demonstrating autonomy and accountability in its actions. Center staff observed that community members “know we have ownership of our own identity”. However, they acknowledged the considerable effort it took to gain trust and respect.
Similarly, the growth of another AHEC Program also encountered resistance when community stakeholders opposed the establishment of a new AHEC Center in their backyard. Again, fear and suspicion arose from mistrust of the host academic medical center’s intentions. Efforts to establish the Center were thwarted when hospitals in the community would not cooperate and refused to contribute money towards resident stipends. There was a sense that AHEC would compete with existing providers or move in on their turf. After a sustained period of courting and a few hospital closures, the Program Director was able to develop relationships with the local physicians, secure their trust and open the Center.

Sometimes the distrust is not only institutional, but cultural as well. Reflecting a curious mixture of urban-rural tensions and race politics, one interview participant noted:

> When people see (the host academic medical center) coming…. If we are going to rural areas, (they say) what are we doing? Can they trust us? When we went to rural areas, they wondered about our mission… (about our) taking “white” patients, stealing market share, increase money, etc. You have to be very truthful and open about that. Fitting the needs of the community with the program. Good faith efforts, writing grants with them, (offering) technical assistance, going to a lot of meetings, writing a grant for them. Making them realize we’re not there to swipe patients or impose an urban agenda. Sustaining that relationship means including them on grants, continued technical assistance. For the CHIP (Children’s Health Insurance Program) grant, we did (that). We used Western AHEC as the rural pilot. It is a mutually beneficial relationship.

**C. Life Cycle Stage: Maturity And Critical Cross-Roads**

Transitioning from basic federal funding to state support represents a sentinel event for most AHECs. Obtaining financial resources represents a
perennial challenge for AHECs. However, the transition from basic federal funding to state and local sources of support has profound implications for the performance and sustainability of AHECs. The State B AHEC offers a fascinating case study. It began with a single Center, expanded to three over the course of seven years, and then opened 15 more over the course of five years. As many as 19 AHECs operated in the state over the course of its life, but currently only ten of those Centers are still operational. Interview participants and archival records indicate that transition from basic federal funding represented a sentinel event that changed the nature of the State B AHEC system. Two years prior to the transition, the State B AHEC went through a strategic planning process to design the system that would exist after basic federal funding dried up. A long-time State B AHEC participant noted:

We put through legislation, went through the committee process, went through the Assembly and the Senate, and it passed. That was a difficult time. I think it was the first time that State B had a $10 billion budget shortfall. And we were still able to get it through that far. However, the Governor vetoed it.

Apparently, the State B AHEC did not have strong support from the University of State B, its host university, or from the State’s Office of Statewide Health Planning and Development. Because of the state’s budgetary shortfall, these two potentially powerful advocates for the State B AHEC instead looked after their own institutional interests.

As one interview participant noted, “It was a significant event, not getting funding for the whole State B AHEC as well as the Centers. Some Centers could
not continue after that.” In fact, after the major federal funding period ended in 1988, much of the administrative superstructure required by the federal regulations was reduced through design or attrition. Under a plan approved by a Council of Deans, the project was pared down from 18 to 11 AHEC Centers. The demise of federal funding also prompted a lower level of interest in AHEC among some academic partners. One interview participant commented:

No, in our medical school they don’t recognize it. When we had federal money the program was more visible. Primary care knew about AHEC and our programs. Now, we have no money and no one knows about it, besides myself and maybe a couple of colleagues, because we are involved with the Center and community efforts.

Other AHECs have encountered similar critical crossroads. Interview participants described the ebb and flow of money as one of the most significant factors shaping the evolution of their AHEC Programs. For example, State D experienced a financial crisis when federal (core) funding ended. However, state monies rescued the program and allowed it to persist through lean times. Other states have not been so successful in gaining commitments from their legislature to support AHEC activities when core funding ends. In fact, some have suffered serious blows when state budgets tightened. For example, the State C AHEC Program struggled and barely survived the mid-late 1990s when federal core funding ended and unexpectedly, the state ceased to support AHEC for four continuous years. While state funding has since been restored, the AHEC feels that it could disappear again without notice. During that time of minimal funding, Center and Program Directors received reduced salaries and many took
no salary. Such instability of program funds has made it difficult for Centers to commit to program activities which require staff expansion for fear that the funding will again cease without warning. Furthermore, many respondents reported that they fear difficult economic times might even threaten local funding streams.

Although too early to tell, two state AHECs that are facing imminent transition from federal funding may also experience disruption as they transition from federal basic funding to state and local sources of support.

Not all AHECs experience disruption from this sentinel event. For example, as the period of basic federal AHEC funding came to a close, the State E AHEC asked the two participating medical schools if they would be willing to support continuation of funding. In the words of one interview participant, “We joined hands and went to the Legislature. We also took the time to engage legislators locally.” The State E AHEC found a champion on the Appropriations Committee and the bill to create state funding for the program passed with 87 out of 105 votes. The interview participant noted that the timing was good in the sense that the state’s economy was doing well in the mid-1990s and the legislature had the wherewithal to support the program.

Leadership departures represent a significant, and often disruptive, change for AHEC Programs. While strong leadership was unequivocally an asset in emergence and growth of many AHEC Programs that we studied, we also observed that over-reliance on a single leader can have deleterious
consequences on the performance and sustainability of AHECs. Many of the founding AHEC Program Directors led the way carrying substantial weight on their shoulders, but leaving only shallow footprints in the sand. Inevitably, those leaders must be replaced which leaves a significant void and work to continue. Succession planning could help, but leadership departure cannot always be anticipated. After more than a decade of involvement with the State C AHEC, a beloved leader, visionary, political fighter, and long-time Program Director passed away in April 2001. When he passed away, so did numerous connections (especially with the State Legislature) that once existed and have not been replaced.

The State G AHEC also appears to be poised for a similarly disruptive, though in this case planned, change in leadership. The founding Program Director is expected to retire in the near future. She was persistent in her efforts to start an AHEC in State G and has demonstrated complete dedication to establishing firm roots for the program. As a former practicing family practice doctor in a very small state, she appears to know just about everyone in State G. These connections have been very useful to the State G AHEC in terms of gaining financial and political support for the young program. Upon her retirement, it is possible that the program may shift to another department in the College of Medicine and that some of the clout she brought to the State G AHEC Program will fade.
Center-level leadership departures also represent significant, and often disruptive, changes. At least one AHEC Center that we visited experienced considerable turnover in leadership, as well as staff, and the result has been an inability to focus on program activities. Centers and Programs that have enjoyed staff and directors with long tenure are more organized and have experienced greater successes in achieving their missions.

Finally, AHECs face ongoing challenges in terms of coping with turbulence in health care financing and delivery, adapting to long-term socio-demographic changes, and responding to unexpected, emergent issues. One of the most common concerns for AHEC Programs and Centers is inadequate access to healthcare for residents in their service area. In some places, the access issues are more problematic for a specific population such as children, minorities, the uninsured, or Medicaid beneficiaries. In some areas, a limited number of minority and culturally competent providers results in this gap in access for minorities. Nearly every Center that we visited explained that their access problems are either caused or exacerbated by a shortage or maldistribution of healthcare professionals. This is particularly true for rural residents who may have to travel great distances to receive pediatric, dental, mental, or medical care. Access to mental and dental care was frequently mentioned as a serious local problem. While workforce shortages are certainly a factor in the access problem for the uninsured and Medicaid beneficiaries, the primary obstacle to receiving care for this population is finding providers willing
to treat them given their insurance status. And many states report that the recent hard economic times and the rising cost of insurance are causing an increase in the number of un- and under- insured people in their service areas.

Not only are the under-served populations in these areas expanding, the general population is also changing significantly. The aging and increasing diversity of the population places new demands on the healthcare system that medical schools and existing healthcare providers must respond to. As people age, health problems and health care settings change and many AHEC respondents expressed concerns about preparedness to handle this population. Similarly, immigration (particularly from Central and South America) presents a new urgency for cultural competency ranging from basic language skills to knowledge of varying health beliefs and disease incidence among these diverse groups. Three of the states we visited share a border with Mexico and therefore have seen a massive increase in the number of Hispanic residents, both transient and permanent, in their areas. This has placed a strain on local systems as they struggle to adapt and plan for the future. This is a role that AHEC can and must assist in.

Finally, AHEC respondents explained the changing nature of health problems in their service areas. In six of the nine states we visited, respondents described high incidences of chronic conditions, such as diabetes and heart disease. With the growing reliance on health education as a tool for reducing these diseases, an increase in their incidence places increased demands on the
providers offering health information to consumers. At the same time, there is a growing need for education on tobacco and substance use as well as STD prevention, according to our informants.

These are only some of the circumstances AHEC must contend with in their daily operations and strategic planning. As Chapter 4, *Programmatic Activities*, of this report will demonstrate, AHECs are constantly working to address these established problems as well as emerging issues. Some are more successful in their efforts than others.
Chapter 2: Mission and Goals

The clarity and vitality of an organization’s mission contribute significantly to an organization’s effectiveness and sustainability (Collins and Porras 1996). Mission defines an organization’s identity and purpose, its reason for being. Mission is especially important in collaborative partnerships like AHECs because it crystallizes and differentiates the identity of the partnership from the identities of individual partner organizations (Weiner, Alexander, and Zuckerman 2000). Mission contributes to performance by promoting alignment across actors, activities, and time. A well-defined mission that meets general agreement aligns the goals and activities of multiple actors across hierarchical levels and geographic distances. Similarly, a well-defined and generally accepted mission promotes alignment among the multiple activities of an organization, increasing the likelihood that those activities will mutually reinforce one another and build toward some global outcome that matters. Finally, a well-defined and generally accepted mission provides alignment over time by providing actors with a touchstone to guide and discipline decision-making. A well-defined mission helps actors to decide not only what to do, but also what not to do. While mission should be periodically assessed and revised for continued relevance, a stable mission enhances sustainability by assuring constancy of purpose, helping the organization to stay the course as it attempts to achieve long-term, complex outcomes.
In this section, we examine the AHEC mission as we saw it in the nine states we visited. We examine congruence between the missions of the AHEC Programs and Centers and the mission of the national AHEC Program. We discuss differences in mission from the Program, Center, and partner perspectives, and address how AHECs balance local, state, and national priorities. We examine the ways in which successful AHECs have adjusted to shifts in their mission, and explore the dynamics that drive such mission changes. We conclude with a discussion of the ways in which the AHEC mission and the HETC mission are distinct, and the ways in which they overlap.

A. Mission Congruence

The Health Professions Education Partnerships Act of 1998 (P.L. 105-392, Section 751) re-authorized the AHEC Program and re-stated its mission: “To enhance access to quality health care, particularly primary and preventive care, by improving the supply and distribution of health care professionals through community/academic partnerships.”

Consistent with this Congressionally mandated mission, HRSA’s website states that the purpose of AHECs is to:

Form collaborative partnerships that address health workforce needs within a region of a state or in an entire state. AHECs link the academic resources of university health science centers with local planning, educational and clinical resources, establishing networks of community-based training sites in under-served areas. (http://bhpr.hrsa.gov/grants2002/applications/ahec.htm).
To accomplish this purpose, HRSA expects AHECs to:

- Form **linkages between health care delivery systems and educational resources in under-served communities**
- Create **collaborative community-based education** and training opportunities for health professionals, students and primary care resident physicians
- Increase the number of individuals from **minority and under-served communities** who enter health careers
- Create **systems for learning and networks for information** dissemination
- Support **multidisciplinary and interdisciplinary training** in response to community needs
- **Promote health, prevent disease and provide cost-efficient primary health care** services
- Respond to **emerging needs** and priorities
- Provide **technical assistance** to educators and others

These expectations are formally codified in the criteria that HRSA uses to evaluate new applications, competing continuations, and supplements to federal AHEC funding. A closer look at the application criteria highlights the strengths and limitations of AHEC mission and goals.

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4 Bureau of Health Professions, Health Services and Resources Administration, [http://bhpr.hrsa.gov/interdisciplinary/ahec.html](http://bhpr.hrsa.gov/interdisciplinary/ahec.html).
In response to the Government Performance and Results Act (GPRA) of 1993, the BHPB outlined two national workforce goals that apply to Titles VII and VIII Programs, including the AHEC Program: (1) improve access to quality health care through appropriate preparation, composition, and distribution of the health care workforce, and (2) improve access to a diverse and culturally competent health professions workforce.\(^5\) For each goal, the Bureau established several outcome objectives and performance indicators that apply to all Bureau-funded programs. When applicants apply for new, renewed, or supplemental federal AHEC funds, they must describe how they will address seven AHEC Project requirements and three AHEC Center requirements (See Appendix E). Moreover, applications must identify specific objectives for the AHEC project that address these requirements and their associated national workforce goals. “The objectives must be *measurable* with specific *outcomes* for each project year which are attainable in the stated *time frame*.”\(^6\)

The application process itself strengthens the mission of AHECs in two ways: by clarifying the purpose of the AHEC Program, and by facilitating greater alignment in the goals and activities of the national program and state AHEC projects. Many collaborative partnerships struggle for months or even years to identify a purpose that participating organizations accept and rally around. Even when formulated and accepted, in many partnerships, the mission

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\(^5\) Form PHS-6025-1, Revised 5/01.  
\(^6\) Form PHS-6025-1, Revised 5/01, p. 31.
is so abstract and vaguely stated that it does not provide meaningful guidance in the formulation of goals and objectives.

By comparison, AHECs benefit from possessing a defined mission and a set of goals against which to set objectives and plan activities. The process of completing the application provides a structured occasion for AHEC staff members to reflect upon the mission, develop project-specific goals and activities that align with overall program goals, and identify specific measurable indicators upon which to gauge performance. By articulating a linked set of goals, objectives, activities, and indicators, AHECs enhance the likelihood of making measurable progress (Weiner, Alexander, and Zuckerman 2000).

For example, in its application, the State G AHEC proposed as an AHEC Program objective to increase access to health care practitioners for non-English speaking and under-represented minorities. In support of this objective, the State G AHEC proposed to engage three activities. First, the AHEC would collaborate with the State G Interpreter Network to develop a 24-hour interpreter service that will be available for health care practitioners and patients. Second, the AHEC would support recruitment and retention efforts in regards to immigrant, refugee, and under-represented minority health care practitioners. Finally, the AHEC would identify and train primary care practitioners who work with non-English speaking and minority populations regarding cultural competence and provide information through resource centers throughout State G. The State G AHEC proposed two measurable indicators of its performance in
meeting this objective: (1) the number of health care practitioners accessible to non-English speaking populations and (2) the number of health care practitioners participating in educational programs that assist practitioners in becoming more culturally competent. The objective that the State G AHEC formulated aligns with and advances the AHEC mission and the Bureau’s national workforce goals. In addition, the objective guides the development of specific activities that also link to the broader mission and goals of the program. Finally, the measurable indicators that the State G AHEC identified provide a means for gauging performance and progress.

In general, we observed alignment between HRSA’s statement of AHEC purpose and focus, as stated above, and the goals articulated by AHEC Program Directors and Center Directors in the advance survey and interview sessions. Five mission elements received frequent mention. First, many viewed the formation of partnerships between academic medical centers and communities as a core element of the AHEC mission. As one Center Director put it:

The creation of partnerships is more viable than just recruiting students into the rural areas…. When we decided we were going to be a community liaison, the partnership builder (for) the academic community with living community, it became a major event. That way we could focus on that as a goal: to form these partnerships. We had a lot more successes.

Second, many viewed community-based education and training as central to the purpose and activity of AHECs. One academic partner described the AHEC mission as “making sure the students have the quality education that’s
necessary for them to be competent practitioners when they get out in the real world.”

Third, interview participants at nearly every AHEC visited cited as an explicit goal the recruitment of young people into health careers. Most discussed this AHEC goal in terms of increasing recruitment of under-represented minority students into health careers. One AHEC staff member tied this to the related issues of access and quality of care, noting that “the lack of minorities in health professions impacts the access to care provided to minorities and whether they receive care that is ethnically and culturally sensitive and culturally competent.”

Interview participants from AHECs in states with relatively small ethnic minority populations and large rural and under-served areas placed less emphasis on the ethnicity of the students. Instead, they phrased the goal more generally as health career development for young people.

Fourth, interview participants from several AHECs highlighted the importance of creating systems for learning and networks for information dissemination, especially for reaching rural health professionals. In the words of one interview participant, “AHECs are uniquely suited to providing those outreach kinds of CE and service-oriented programs for communities that probably wouldn’t have the resources to do it otherwise.”

Finally, many mentioned enhancing access to care as a key element of the AHEC mission. In some instances, interview participants discussed access to care in terms of recruitment and retention of providers. More often, however,
respondents mentioned access to care in the context of providing health care services and health promotion services to communities in need. In sum, we observed congruence in the stated mission and goals of AHEC Programs and Centers and the stated mission and goals of the national program, as articulated by HRSA.

We also observed general consensus among Program staff, Center staff, academic partners, and community partners on the mission and goals of AHEC Programs. Such agreement might be attributable to the use of participatory strategic planning processes, a common feature of AHECs visited in the study. Predictably, we observed somewhat less agreement on mission and goals among interview participants at newer AHECs. Here, participants are less likely to be familiar with the AHEC concept and may not have worked through their differences in perspectives about overall goals.

Differences in opinion about mission typically reflected an interview participant’s partial view of the AHEC or strong identification with one aspect of the AHEC mission and goals. For example, an AHEC staff member who oversaw health promotion activities felt that the mission of the AHEC “should be community-focused.” He added,

Often programs are too closely aligned with the academic institutions. The students in rotations don’t often get enough time in community organizations to really understand what environment their patients are living in.

By contrast, the AHEC staff member in charge of clinical rotations felt that the AHEC had two main purposes: (1) to support community-based education and
(2) to try to keep students and faculty up-to-date on current issues (e.g., bioterrorism). Thus, respondents’ view of the AHEC mission reflected differences in areas of interest and expertise.

Focus group discussions suggest that students do not know that the AHEC exists, let alone its mission and goals. Many did not even know that they had participated directly in an AHEC-sponsored rotation. Similarly, many interview participants from community-based organizations (CBOs), including some directly receiving funding from AHECs, acknowledged that they did not know what the AHEC mission and goals were. These observations suggest that key customers of AHEC Programs and services do not realize who provides or sponsors those programs and services and do not fully understand the purpose and scope of AHEC activities. Such lack of awareness and knowledge of what AHECs stand for and what they do undermines the potential political support that AHECs could reap from community stakeholders.

B. Mission Incongruence

The AHEC mission itself poses two critical challenges for AHECs. First, the breathtaking scope of the AHEC mission and the sheer number of goals and requirements placed on AHECs raise serious questions about the “evaluability” of AHEC performance against the standard of mission accomplishment. Given the multiplicity of objectives that AHECs must pursue, the inherent complexity of the problems that AHECs address, the relatively limited resources granted to AHECs, and the long-term nature of the outcomes that AHECs seek to achieve, it
comes as no surprise that AHECs find it challenging to cover defined service areas, to involve other health professions, and to maintain an interdisciplinary focus. It further comes as no surprise that HRSA, AHEC staff, and external evaluators continually struggle with the issue of establishing a common set of performance standards and performance metrics. The business literature suggests that companies achieve excellence by “sticking to the knitting” rather than trying to be all things to all people (Peters and Waterman, 1982; Hamel and Prahalad, 1994). If high performance demands sustained focus, then the breadth of the AHEC mission and the sheer number of goals and requirements placed on AHECs represent significant barriers in their own right to achieving and measuring AHEC effectiveness.

Second, although broad mission scope enhances flexibility to respond to varying statewide and community needs and opportunities, it also creates ample occasion for conflict to emerge over priorities. Mission consensus does not necessarily translate into agreement on priorities. To some extent, priorities will inevitably differ simply because different partner organizations have different interests and different communities will have different needs and opportunities. While a medical school dean might wish to see greater emphasis on medical student rotations, preceptor development, and community-based residency training, a nursing school dean might wish to see greater emphasis on CE for rural nurses and recruitment of under-represented minorities into nursing careers. Similarly, one AHEC Center may see greater local need for recruiting
and retaining primary care physicians while another AHEC Center may see
greater local need for library and information services support for isolated rural
practitioners. Unanimous agreement on priorities should not be expected or
even encouraged.

However, the latitude granted by the breadth of the AHEC mission and
the sheer number of goals and requirements placed on AHECs may promote a
lack of responsiveness to statewide workforce needs. For example, we visited
several states that were experiencing severe statewide nursing shortages. The
shortages had been brewing for years, and interview participants generally
recognized them as being widespread and acute. Yet, in those states, some
AHEC Centers considered the nursing shortage a priority and focused their
resources and activities on alleviating the problem in their local communities.
However, other AHEC Centers in the same state did not consider the nursing
shortage a priority – even though the shortage affected their communities – and
instead focused their resources and activities on primary care residency training,
CE, or some other AHEC goal. Similarly, we heard about dental access problems
in every state that we visited. In some states, AHECs saw dental access as a
priority. In other states, AHECs did not. Similarly, divergence in the priority
assigned to dental access occurred across AHEC Centers within the same state.

Unfortunately, the AHEC mission and goals offer little help to
participants seeking to reconcile differences in priorities. Nearly anything that
bears upon health professions education and training fits the overall mission,
matches some goal, and meets some requirement. Broad mission scope and multiple goals thus contribute to the challenges that many AHECs experience in terms of creating a coordinated, statewide response to workforce issues. AHEC Programs cannot make a serious dent in the nursing shortage issue, for example, unless the state’s AHEC Centers make the shortage a top priority and make a concerted effort to address it. As we will discuss in later chapters, achieving such coordinated effort is difficult enough given the organizational structures and funding life cycles of AHECs. The wide latitude for setting priorities granted by broad mission scope and multiple goals merely compounds the challenge.

C. Mission Expansion: Balancing Multiple Demands

As if the AHEC mission were not broad enough already, AHECs face significant pressures and incentives to expand their mission beyond health professions education and training to include direct provision of preventive and primary care services. We observed AHECs involved in projects providing abstinence education, HIV/AIDS prevention education, tobacco cessation and prevention education, HIV/AIDS case management services, vaccinations, mammography screening, violence prevention education, substance abuse prevention education, and other health promotion, prevention, and primary care services. Mission expansion into direct service provision seems to occur more often at the Center level, perhaps because Centers typically have responsibility for carrying out such programs. However, our observations suggest that AHEC
Programs also experience incentive and pressures to expand into direct service provision.

This pressure to provide direct services is not a recent phenomenon for AHECs. In a 1975 report to the Health Resources Administration, Dr. Eugene Mayer delineates the sources that have historically contributed to the AHECs mission expansion, including an overly broad interpretation of the Carnegie Report recommendations and a lack of understanding of the enabling legislation for AHECs. Mayer concludes his report by emphasizing the need for AHECs to remain true to their initial goals of health professions education and manpower development.

Interview participants suggested that the incentives and pressures to engage in direct service provision are pervasive and continual – requiring ongoing attention and concern. As one Program Director observed:

We are forced to constantly revisit the issue of mission because universities, community, or health care agencies bring us projects that they would like us to do. Many times we have to ask ourselves the question, ‘is that project, even though they’ve got funding and they’re ready to go, does it fit within the mission of our organization? Does it potentially represent a detraction from the purpose and our interest?’

Some interview participants were less than sanguine about the move into direct service provision. For example, one interview participant at an academic medical center stated:

The question I have is whether the AHEC should be into direct care delivery or remain as an educational construct. I know the two are closely related, but they’re not the same. I’m worried about fragmentation. I think they need to remain a more education and support organization, instead of direct service delivery.
Other interview participants, however, described the expansion of AHECs into service provision as an inevitable and natural development. As AHECs become established in communities, and as basic federal AHEC funding diminishes, AHECs adapt to meet local needs and funding agency priorities.

I see it as a natural mutation. One of the things that I’ve heard the AHECs talk about is that each AHEC has focused on a particular issue. I think that’s part of being sensitive to the needs of the community.

The incentives and pressures to engage in direct service provision come from multiple directions. For example, community needs and local opportunities often prompt AHECs to expand their activity focus beyond health professions education and training into health promotion, prevention, and primary care programs. Successful AHECs show responsiveness to community needs, function as vehicles for inter-organizational collaboration at the local level, and demonstrate creativity in securing funding and other needed resources. Often, this means becoming involved in direct service provision. Generally speaking, interview participants did not view such responsiveness in negative terms. Rather, they pointed out that the AHEC must respond to community needs for services, such as health promotion, in order to be viewed as a valued community resource (These and Kuzel 1999). Moreover, as one Center Director pointed out:

Sometimes things are just the right thing to do. If something is really needed in your community, you get involved with partners that you partner with on other things, and you get drawn into other projects that really aren’t something that we need to be spending a lot of time on, but you’re working with people that you need in your group of supporters, so you end up spending two weeks on doing
‘Shattered Dreams’ for the high school or Red Ribbon Week or whatever because those people are your partners and you need to work with them.

Another Center Director observed that the AHEC gets tremendous visibility and support in the community from its involvement in direct service provision projects. Talking about her Center’s involvement in a mammography screening program, one Center Director observed, “Those kinds of things endear us to the community, open doors for us in the community, and actually make a difference.”

AHECs also face pressures and incentives from state agencies to become involved in direct service provision projects. In some ways, successful AHECs become a victim of their own success. Once they demonstrate value to state agencies in providing community-based health professions education and training, AHECs risk being seen as a vital infrastructure for service delivery as well. It is difficult to turn away such opportunities, as this respondent described it:

AHEC has become the dumping ground in order to get the project done for them (state health department). … You don’t bite the hand that feeds you so you take the money, because it helps you get other things done as well. It provides seed money for other projects. The hard part is that we may need to put someone off in order to get the state priorities done. That’s OK to do one year, but you don’t want that to continue.

AHECs do not exist independently of the partnerships that they form. As catalysts and vehicles for inter-organizational collaboration (i.e., as “inter-organizations”), their effectiveness, credibility, sustainability, and adaptability depend on the contributions and goodwill of partner organizations. As such,
responsiveness to requests from partner organizations is a critical success factor for AHECs. Sometimes, though, responsiveness means going beyond core mission.

Successful AHECs creatively cope with pressures and incentives for mission expansion by finding a way to add a health professions education or training component or twist to a service delivery project. The evaluative study team observed several examples of such creativity.

For instance, one AHEC creatively added a health professions education component onto what was initially planned as a straightforward hepatitis immunization program. As a result of close community ties through the AHEC advisory board, staff members knew that community need existed for interventions addressing hepatitis. AHEC staff members also learned that the state health department had funding to increase immunization. The Program Director observed:

Basically we had to say to ourselves, ‘That outcome is not our job, that is not what we do.’ Then we said to ourselves, ‘Is there something that can work that fits within our mission?’ Then we created a program that increased immunization rates through training health professions students and providing continuing education to providers who serve a largely Asian population.

This initiative was lauded by an academic partner, who noted that:

The state might have used the money to print hundreds of thousands of pamphlets for grade school that might have gotten thrown out. Instead they (the AHEC) have really active programs going on. Since they know what is going on in the community and what the needs are I almost feel that when the Program Director goes to the state capital he looks at the smorgasbord of programs down there [to see] what could he use to meet the need.
In another instance, the state disbursed tobacco settlement monies through AHEC for smoking cessation interventions. AHEC developed an interdisciplinary training activity that brought together over one hundred students from medicine, pharmacy, physical therapy, and public health. The students received training on the risks of tobacco use and strategies for smoking cessation, and then formed interdisciplinary teams to go into local school systems and educate sixth-grader students on smoking risks and cessation methods.

D. AHEC and HETC: Mission Differences and Similarities

Following the guidelines established by the external AHEC Evaluative Study Advisory Committee, the evaluative study team included a Health Education and Training Center (HETC) as one of the nine programs selected for intensive case study. Although generalizing from a single case requires caution, the inclusion of an HETC in the study design permitted some comparison of the differences and similarities between HETCs and AHECs in terms of their mission, goals, development, funding, organization, administration, and programs.

HRSA describes the HETC Program as follows:

Health Education and Training Center grants improve the health status and life expectancy of low-income and racial and ethnic minority populations in severely under-served areas. HETCs employ educational incentives to attract and retain health care personnel and emphasize wellness in public health education. Training focuses on health education, health career education; continuing education for health professionals, and use of nurse practitioners, physician assistants, public health personnel and other care givers relevant to primary care in areas of exceptional need. (http://bhpr.hrsa.gov/interdisciplinary/hetc.html)
HRSA’s website defines the purpose of HETCs as promoting “community driven solutions to diversity, distribution, and access.” Echoing this sentiment, interview participants from the HETC emphasized community empowerment, public health focus, and grass-roots advocacy as key elements of the HETC mission and goals.

HETC interview participants universally reported that community empowerment was the key distinguishing feature between AHEC and HETC Programs. As they saw it, the purpose of the HETC is to empower the community to address local health needs through grass-roots advocacy and education. Some subtle difference emerged, however when interview participants commented on respective roles and relationships of HETC and AHEC Programs. HETC Program staff, for example emphasized that HETCs focus on community empowerment and public health whereas AHECs focus on health professions education and training and access to health care services. Other interview participants, however viewed the HETC as an extension of the AHECs – that is, as a funding mechanism to support community-based education programs that their limited resources could not cover.

Site visits indicate that some, although not all, AHECs also focus on community empowerment, public health focus, and grass-roots advocacy. Some interview participants, mostly AHEC Center Directors, saw community capacity-building and economic development as legitimate, important, and natural goals.
for AHECs. Commenting on his Center’s mission and goals, one Center Director noted:

> It’s been an evolution away from supporting traditional residency and medical training and coming up with more genuine community projects that have a payoff directly for the community rather than just health professions training. We’ve had a couple of successful Community Oriented Primary Care projects that provided lasting value to the community. They have all shaped the sense that we have been doing things differently and that we see community development as an important goal of the AHEC rather than just traditional medical training.

Another Center Director stated:

> Another emphasis for us has been community development. In poor (counties), communities are not very sophisticated. Health care is an economic development industry. In a (county) with little industry and population decline, there’s got to be a recognition that businesses looking to move into area are going to look at schooling and health care. We sing the message that health care is an economic development issue. We’ve sung it long and hard. I think our communities have gotten it.

AHECs facilitate community development through three principal strategies. First, AHEC Centers sometimes serve as fiscal agents for grants and contracts in circumstances where no other community-based organization (CBO) could do so, either because of political considerations or because no other CBO has the organizational capability. For example, one AHEC Center Director observed that, as the Center’s reputation and organizational capacity grew, the Center increasingly got asked to serve as a fiscal agent for a number of large contracts. Currently, the Center serves as the fiscal agent for the Children’s Special Health Services Parent Liaison Program. This program provides information and support to families of children receiving services through Children’s Special Health Services grant. The Center also serves as a fiscal agent
for Project CARES (Community Agency Resources to Ensure Services), an initiative funded by the state Department of Mental Health (DMH) that seeks to reduce youth violence and substance abuse. AHEC Centers also facilitate community development by providing grant writing assistance to CBOs. As the following quote illustrates, these activities build local health care infrastructure while also improving access to care for rural under-served populations.

We helped write a grant for a little community hospital to the Department of Transportation to buy a van for rural communities so that they transport patients to their local hospital. Our administrators are not the most sophisticated folks. They are great at what they do, but…. Just to sit down and consult with them. We don’t charge anything for our services. Then we can look at this as an outcome of AHEC. It looks like we are going to get the van that will make sure that at least 12 more people will get their health care every day.

Second, AHEC Centers facilitate community development through forming, joining, and promoting broad-based coalitions to improve community health status and strengthen collective problem-solving capacity at the local level. Commenting on the AHEC’s role in his local community health partnership, one interview participant stated:

The glue that has kept all this together is AHEC, which has linked providers of care and academia. Southwest AHEC serves as a hub for coordination and a clearinghouse for information. They play a very valuable role in that respect. Their capacity to build rapport is commendable, especially considering that some of the local directors and CEOs are difficult to work with. (The Center Director’s) willingness to make those connections has been a tremendous contribution.

Finally, AHECs facilitate community development by hosting, joining, and contributing to economic development projects. For example, the State E AHEC Centers participate in the Southern Rural Access Program, a Robert Wood
Johnson funded initiative that includes both a “Chambers of Health” component modeled on chambers of commerce as well as a rural loan fund component that provides financial assistance to physicians and other health professionals to set up practices in rural counties.

Given that some AHECs are moving into more community-driven health improvement and access issues, the key differences between AHEC and HETC may be structural, rather than programmatic. AHECs are distinguished by their alignment with the academic medical center and their focus on medical professionals, leading to a mission based on the medical model, as distinct from the HETC public health model, with no specific medical school alignments. Not all AHEC or HETC interview participants recognized these distinctions. Clearly, some blurring occurs between the two programs. In the opinion of one interview participant, much of the blurring of the missions of HETC and AHEC arises from the lack of specificity on the part of HRSA and the lack of opportunity to develop a separate identity. This individual noted that there is significant concern within the AHEC community that giving HETC a separate identity will “come off the hide of AHEC.”
Chapter 3: Funding

A. Introduction

Many of the themes relating to funding found in the previous AIR evaluation of the AHEC Program were also observed during this evaluative study. The AIR study identified particular emphasis on political relationships between AHECs and state legislatures, increased and diversified funding sources after federal funding ceases, and a minimum amount of funding that is necessary for survival of the AHEC. These themes also apply to the AHECs site-visited during our project. Two themes that the AIR researchers observed that we did not were 1) requirements for some AHECs to contract back to the school a majority of their funding in support of medical education and 2) the tendency of Program Offices to seek funding for “suprastructure” projects that do not fall within a Center’s control.

B. Dominant Themes

During our evaluative study, several themes that related directly to funding arose. Those themes are stated in italics and explained below.

Capturing a permanent or stable stream of funding is vital to the success of an AHEC.

This theme seems obvious, but it deserves explicit, though not exhaustive, discussion. Although AHECs’ budgets may ebb and flow due to fluctuating grant funding sources or shifts in state funding, there is a minimum amount of stable funding required to cover a core group of AHEC staff. Without secure
funding for these core staff, the ability to pursue financial independence is
diminished, and the viability of the AHEC is called into question.

Several of the AHECs we visited were good examples of how stable and
sufficient funding allows the AHECs to expand their programs and services. In
one state, the AHEC began to get state appropriations in 1998 and has received
increased funding every year. The AHEC received $500,000 in the first year,
$750,000 in the second year, $1.25 million in year four, and $1.75 million in the
most recent year. Despite dismal budget forecasts, they expect to get $2.5 million
in the coming year. The Program Director indicated that these state funds have
been instrumental in allowing them to expand the program into areas of the state
not currently covered.

In contrast, another AHEC has struggled to merely keep the AHEC
functioning, without a steady funding stream. One Center Director expressed
the difficulties this way: “We try to be creative with the resources that we have.
But, it has been a challenge to keep the organization alive to keep working and
growing. It has not been easy.”

Significant financial constraints, which began when the state legislature
stopped funding the AHEC in 1995, forced Center Directors and staff to take
reduced or no-salary positions. One Center Director volunteered part-time while
two others worked part-time. Although the AHEC survived through this period
and has since received more stable funding, the results of this uncertain time are
still visible in the AHEC, with staff feeling vulnerable to the possibility of future state changes:

Whether we get the money or not (referring to the $4 million that is supposedly coming this summer), I want to work hard to get them (the state legislature) to understand our mission – that we belong in (this state), that we link to a national agenda.

The transition from core to other funding is a critical time in an AHEC’s life cycle.

Four of the AHEC Programs in the evaluative study experienced the end of core funding as a sentinel event; lessons learned from their experience may offer valuable insights into the life cycle of AHECs.

In one state, coming off federal funding and having to compete within a crowded field of established health care workforce programs and planning agencies represented a sentinel event of major proportions that changed the entire nature of the state AHEC system. This AHEC experienced a period of dormancy for several years after the period of major federal funding ended in 1988. Much of the administrative superstructure required by the federal regulations was reduced through design or attrition. Under a plan approved by a central planning council, the project was pared down from 18 to 11 local AHECs. Currently only 10 Centers exist. Funding from state, federal, and community sources remains minimal, especially in light of the size of the state and the scope of the need. The demise of federal funding also seems to have
prompted a lower level of interest in the AHEC among some academic partners.

One academic partner interviewed explained the effect of losing federal funding:

   No, in our medical school they don’t recognize it. When we had federal money
the program was more visible. Primary care knew about AHEC and our
programs. Now, we have no money and no one knows about it besides myself
and maybe a couple of colleagues because we are involved with the Center and
community efforts.

Another AHEC also faced a shake-up as a result of losing federal funds.

Two AHEC Centers became defunct. Only one Center survived this change.

This Center was able to persist in lean times through an unintentional core
funding stream that came from the state through a structure that served as a
stand-in for core funding and allowed them the opportunity to build capacity to
capture other funding to expand as needed and adapt as necessary. A direct
result of this environment was a culture of entrepreneurialism that emerged in
the state’s sole surviving Center. The Center Director explains this in more
depth:

   I’ll go on record that an AHEC has to have some core funding to develop grants,
become part of the community. I won’t say that it has to come from the federal
government or state or the university, but there has to be some strong funding. …
I think it’s necessary for an AHEC to generate some revenue to cover costs.
We’ve established some discretionary fund accounts. For example we’ve
involved the nursing school in a telecommunications effort. We’re going to ask
them to help in the costs of updating the system.

   More recently, a third AHEC Program faced challenges. The AHEC
received federal core support from 1984 until 1995 when it became a model
AHEC Program. At this time, it became eligible for matching federal support as
a state-supported system. From 1990 until 1994, annual legislative
appropriations supported the first four Centers that were originally created in the 1980s. Unexpectedly, state appropriations were cut in the 1995 legislative session. During this period of uncertainty, finding the funding and resources to support mission-critical activities was a grave trial.

A fourth AHEC’s experience with the transition from core funding illustrates the importance of state political support. As the period of basic federal AHEC funding came to a close, this AHEC asked the two state medical schools if they would be willing to support continuation of funding. One respondent described it this way: “We joined hands and went to the Legislature. We also took the time to engage legislators locally.” AHEC found a champion on the Appropriations Committee and the bill to create state funding for the program passed with 87 out of 105 votes. One interview participant noted that the timing was good in the sense that the state’s economy was doing well when the request for funding came.

Another AHEC we visited may face a similar sentinel event that may fundamentally change its organization, administration, and programmatic activity. Several Centers will lose their core federal funding shortly as their funding periods end. The current level of state funding does not appear to be sufficient to sustain seven centers. The ongoing competition among the AHECs across the state will remain a fixed element of the landscape for the AHEC in the state. Our site visit revealed that the organizational integration of the AHEC with one of the state’s medical schools perpetuates the image of an AHEC as a
“(that school)” activity. If the other medical schools do not feel a sense of ownership of the AHEC, they may be less inclined to provide financial support to the program. This will likely pose a problem when the program searches for non-federal funding sources.

Successful AHECs have diversified funding sources.

To create the stable funding mentioned above, AHECs have developed a wide range of funding partners. Federal, state, and local governments provide funding as do health care systems and philanthropic organizations.

Some AHECs have become quite adept at securing funding from different sources. One AHEC gathers funding from several federal funding sources, state funding, grants, and contracts with clinical or community agencies. In particular, this AHEC has developed an expertise in finding entrepreneurial funding while remaining true to its mission. One academic partner gave this example:

(The Program Director) and his staff have a real knack for finding funding, like the State Health Department had this funding for hepatitis. At the same time, (the AHEC was) closely linked to the community through their advisory boards, (so) they knew the need in the Asian community particularly for hepatitis education. The state might have used the money to print hundreds of thousands of pamphlets for grade school that might have gotten thrown out. Instead they (the AHEC) have really active programs going on. Since they know what is going on in the community and what the needs are I almost feel that when (the Program Director) goes to (the state capital) he looks at the smorgasbord of programs down there to see what could he use to meet the need.

Another AHEC also serves as an example of the diverse forms funding can take. One highlighted program is their administration of the state loan repayment system. Loan repayment dollars are very important to AHEC budget
as certain dollars are tied specifically to this activity. The state provides $10,000 per student per year and the community health centers (CHCs) and hospitals match this contribution. Another source of funding for this AHEC is a special Scholars Program. A philanthropic foundation was established in 2000 by a prominent local family interested in using its wealth to improve access to care for state residents. Inquiries to the Governor about the best way to do this resulted in referral to the AHEC Program Director, who worked with the family to set up a student scholarship fund which contributes $2 million a year to the AHEC. The majority, $1.4 million, goes directly to student scholarships; the remaining $600,000 is used to support other AHEC activities related to student education and the staff that coordinate this program activity. This AHEC has also been successful in leveraging other, non-federal, sources of funding over the six years of its existence. Those sources include the state university, a health care delivery system, a philanthropic foundation, and the state health department.

Additionally, local hospitals and other community partners have stepped forward to support AHEC activities. Our site visit team spoke with representatives from each of these entities and found great satisfaction with the work AHEC is performing and unwavering interest in maintaining their financial relationships with the program.

These varied sources of funding for AHECs do more than merely augment federal or state funding. They serve as a sort of insurance policy, in the event that some sources of funding are discontinued. A program staff person
from an AHEC that had had state funding completely cut in 1995, expresses this attitude:

The ground is not solid under an AHEC. We are always looking to diversify our funding. We generated support throughout models and grants. We continue to have lots of relationships and partnerships. We have huge partnerships and relationships and others who can help share resources. That has driven us to become a surviving AHEC.

*Federal AHEC funding can be a small part of overall funding.*

Although federal funding for new AHECs is critical, some AHECs are able to cultivate enough sources of funding to make the federal government a minority contributor. One AHEC, particularly successful at finding other sources of funding, receives less than 10 percent of their resources from the AHEC Branch. When federal funding is such a small part of the overall financial support of an AHEC, AHEC staff face questions about balancing federal and state priorities. One Program Director clearly articulated the shift that comes from moving from core to model funding. This Program Director said that now that so much of their funds come from the state “we are going to pay more attention to state-level priorities than Federal.” This respondent continued on to say:

When we think about what we do and how do we do it here in (our state), we ask ourselves the question, ‘To what degree do we feel that we have to allow (federal) regulations that are less than 10 percent of our budget to dictate what we do?’ This is an interesting challenge. In the beginning, what drove us was national agenda; what drives us now is much more local. Reflected in my own behavior, I spend more time working on policy boards and interests within the state.

This AHEC is not alone in its minimal dependence on federal AHEC funding. Two other AHECs that we visited receive less than 15 percent of their
total budget from the AHEC Branch. In these states, the question can be reasonably asked, “Do the burdens that accompany federal funding, particularly data reporting, justify the small amount of overall funding that we receive?” These examples suggest that large, mature AHECs that have been successful in obtaining state and local funding may be less responsive to federal mandates.

AHECs often receive funding from other federal agencies.

The AHECs we visited had numerous other federal funding sources, including:

- Department of Agriculture funding to address agri-health issues.
- Health Careers Opportunities Program (HCOP) grant to focus on recruiting students from rural and under-served communities into health professions.
- Ryan White Title I and II grants to provide HIV-related services.

AHECs often provide the infrastructure for a number of national workforce projects (i.e. NHSC, Rural Interdisciplinary Grant, Rural Health Outreach grant, AmeriCorps, SEARCH). The AHEC has both the community credibility (and access to physician practices, CHCs, etc.) and access to the university and students necessary to make these federal initiatives successful.

Local funding streams are important but not sufficient, because much of that support is in-kind.

Despite attempts to encourage funding from the communities where an AHEC Center is located, local resources are often not sufficient to meet needs. This is primarily because most of this local support of AHEC is in-kind, which is
useful, but does not allow AHEC Centers to address critical funding needs, such as employee salaries. In-kind funds may take the form of free or discounted rates, or contributions in the form of donated staff time or technical assistance. For example, a university may make in-kind contributions in the form of office space and institutional resources.

In one AHEC, these donations are offered as evidence of community support of the AHEC, particularly those communities that participate in medical student rotations. The application indicates that this AHEC received $12 million in in-kind contributions from communities. One interviewee stated, “Preceptors donate time, which we all know, slows them down in the office. Churches get together and donate apartments for students. I think it’s just tremendous.”

*Strong Centers have independent sources of funding and connections statewide.*

We offer as an example of this theme an AHEC Center that was founded in 1977 as a 501-c-3 non-profit organization. It has been active since that time, even during periods when the AHEC Program Office in the state was relatively inactive. This Center has a staff of 24 people and provides a wide range of services in support of health professions education as well as support for community programs to enhance access to care. The Center has a 25-member board of directors and a 2002 annual budget of $1,108,415; $324,000 of that comes from a program continuing state support through the Program Office. This AHEC Center has 16 sources of funding beyond state funding, including a federal Rural Interdisciplinary Training grant; a “Healthy Reading” grant, a
Family Violence Council grant, and others. The Center has also had active legislative support from representatives in their service area and across the state, including the current Speaker of the State House. In addition, the Center Director is very involved in the NAO.

Although, older, more established Centers like the one just described may better exemplify this theme, several of the newer AHEC Centers we visited are working to secure independent funding sources. A newer AHEC Center we visited had established a major source of funding in winning a multi-year grant from the DHHS as a Center for Excellence in Women’s Health. The grant will provide $150,000 per year for five years. The Center Director was also very proud to tell us how they were approached by the state Department of Health (DOH) to assist with a rural EMS project as part of the Rural Hospital Flexibility Program (RHFP). This state’s AHEC Centers have also leveraged money from community partners to help support local educational opportunities. For example, the Director of one AHEC Center was successful in getting a local Medical Center to pay half of the $8,000 expenses to put on a health care leadership program in their service area. This local support expands the potential for AHEC activities through increased resources as well as demonstrating to legislators and other potential grantors that the AHEC is embraced by the communities as a valuable resource.

*Substantial funding is given to AHECs based on their infrastructure and community networks.*
One key strength of AHECs is their established networks with communities, academic medical centers, and healthcare providers. Often AHECs are awarded funds as a way of leveraging this network. For example, one AHEC receives funding from the state DOH to provide administrative and technical support for the HIV community planning program. This funding is attributed to the existing AHEC-community network.

As noted above, another center was contracted by the state DOH to assist with a rural EMS project through the Rural Hospital Flexibility Program (RHFP).

Although these examples show how AHEC’s resources and strengths can be made use of, it is possible to overburden AHECs. One respondent described the trouble that having too many additional projects can cause:

AHEC has become the dumping ground in order to get the project done for them. In most cases it’s not that hard to get it done. The Network committees work on it and define the work that needs to get done and diffuses it through the Network. But, it still requires staff time to be responsible for getting it done, which takes them away from some of the things that were already planned. You don’t bite the hand that feeds you so you take the money, because it helps you get other things done as well. It provides seed money for other projects. The hard part is that we may need to put someone off in order to get the state priorities done. That’s OK to do one year, but you don’t want that to continue.

*Successful AHECs create a strong relationship with their state legislatures in order to ensure sufficient state support.*

Because most state funding that AHECs receive is allocated annually by state legislatures, AHECs must have a positive, ongoing relationship with their state legislators. Without this relationship their funding needs may be
overlooked or crowded out by other funding priorities. Failure to cultivate this relationship can lead to disastrous results.

One AHEC had put considerable effort into soliciting state funding in 1995, but ties to the state legislature were not strong enough to prevent the funding from being denied when serious budget shortfalls occurred. An interviewee discussed the specific obstacles that this AHEC faces in the state funding process:

(It) is a different political environment than North Carolina…. The AHEC has such a high profile in North Carolina…. I think there’s so many other (competing programs, we’re) in a different milieu here (that) it doesn’t stand out. I don’t think that’s bad. It’s just the reality of it. Stuff didn’t evolve at the AHEC…. See, here there’s direct state funding of all the residents…. The Title VII funds are all pretty much everyone to (themselves). We have the Office of Statewide Planning and Development. We have a pretty high profile state workforce center that is funded through (the Bureau of Health Professions) which is one of five-state workforce centers. (Interviewer: It’s a lot more crowded…) Yeah. There’s active Pharma-Care Association and Senior Health Centers. I’m not sure that AHEC is ever going to be a dominant political force.

Recent budget shortfalls were also a source of worry at another AHEC. Despite the fact that the program has had success in increasing its incoming monies in years past, there is clearly a sense of uncertainty about future funding. In particular, the Program Director expressed concern about state monies as the state budget is getting tighter. Conversations with state legislators confirmed that money is tight, however it was clear that the legislature recognized the value of the services AHEC provides and that they have every intention of continuing to fund the program at some level. Part of the state legislature’s commitment to the AHEC Program must be tied directly to the personal relationships that the
Program Director has established. The legislators we interviewed knew the Program Director by name and viewed this individual as an important and respected advocate.

In a third state, the AHEC also enjoys a strong relationship with the state legislature. The Program Director has a very good rapport with senators and representatives. In addition to informal relationships with legislators, the AHEC employs a lobbyist to make sure AHEC priorities are known. This AHEC is not enjoined from lobbying because their host institution is a private school of medicine. The Program Director told us that this is a …

very high intensity lobbying-based state. If you want to get something done in any significant way in the state financially or programmatically you almost have to have a person there working for you as a lobbyist.

This Program Director noted that their investment in a lobbyist has shown immediate returns and has increased their state funding every year. With regard to political support, “Most of the people in the legislature who are familiar with us are very happy.” A state legislator offered insight into the way that funding for AHEC is viewed. The legislator said that most of his colleagues do not even know what AHEC is. His major emphasis was on federal matching funding as a key to state support for AHEC: cutting AHEC state funding would mean that AHEC federal funding would be cut, thus legislators are unlikely to do that. In addition, a federal matching program is seen as “pre-vetted and pre-approved.”

Full-time lobbyists also play a part in a fourth AHEC system, where the medical schools housing AHECs have their own lobbyists. These lobbyists are
well-versed on AHEC and work to garner long-term state support, for example reminding legislators to groom their successors to be AHEC supporters.

A fifth AHEC has also developed strong legislative support, though that relationship is more informal and as much a product of the activity of one of the older, more established AHEC Centers than as of the central Program Office.

The Center told us:

I think we have a great relationship with the legislature. It took a heck of a lot of work. And continuing work. Never surprise a politician, and never take a politician for granted. Keep them informed. A rising star of the delegation is an (AHEC) board member. We blanket the delegation, and county commission members, always keep AHEC in front of them. Whether they read it or not, I don’t know. (I) probably should spend more time in (the state capital) – you’ve got to keep it up, and you don’t do that by sitting in your office.

Good relations with the state legislature have been nurtured in a sixth state. One AHEC Center has a local legislator on its board. Another engages in regular communication with its local legislators. One interview participant stated:

(The Center Director) has done a great job including them. They are friends. They stop by and they want to know how things are going. We are in a small town, so it’s very informal. You can call them by their first names. He’s done a good job in working with the different legislators in the region.

This AHEC also works to encourage student-legislator contact. One AHEC Center asks medical students and preceptors to write letters to the local legislator sharing their AHEC experience. Another AHEC Center has developed a marketing tool to promote the Center: a calendar with pictures and stories of the students and preceptors working in the district, meeting the needs of the
legislator’s constituents. The calendar is very popular and the Center receives comments on it every year.

*The funding imperative sometimes puts AHECs in a position of competing for funds with other, similar, state-run programs.*

AHECs sometimes have programs or a mission very similar to new or existing state health initiatives. In many cases, AHECs are able to partner with these other initiatives to leverage their abilities and resources. In other cases, a competitive relationship arises. One example emerged from the history of one of the AHECs we studied. An interview participant explained:

The start-up funding situation was unusual. There was no upfront money from the legislature. What (the state) used was (a parallel legislated program) budget as matching funds. No commitment from the legislature at all when it (the AHEC) first started. The leadership didn’t pay enough attention to the state legislature. It was late in the statewide AHEC efforts. The legislature can’t distinguish between the (parallel program) and the AHEC. The (parallel program) does a lot of minority issues or has set minority issues as their priorities (i.e., residency training). The legislature looks at those programs as being similar to what AHEC does. (This AHEC) can’t garner state money because AHEC doesn’t have a unique role like it might in other states. Other programs were established before AHEC.

During our site visit to a different state, one Center Director spoke directly about being on guard about circumstances that might produce competition and ill will:

We don’t compete with ANYBODY (emphasis), not a provider, not anybody. That’s not our role. Our role is to bring resources and meet unmet needs in our community. If somebody were doing infant mortality, for example, we would have been at the table and brought resources, but we won’t have written the grant and gone after the funding ourselves.

*Successful AHECs create funding paths that fit their environment.*
Although budget woes often take the form of insufficient state funding, our site visits revealed that the path that state funding takes is sometimes as important as the amount of funding provided. In some cases, AHECs are line item appropriations in the larger state budget. In other cases, AHEC funding is hidden inside funding for the host medical school. We found that successful AHECs managed to create or adapt these budget streams to best suit the environment they were operating in.

In one case, AHEC funding is a line item in the state university system budget. The AHEC has a line item of $200,000 per annum in the system budget. The AHEC generally receives an additional $400,000 per annum from the state, although these additional funds often come quite late in the year. This late funding is a source of irritation mentioned by the Centers, since they effectively operate “at-risk” for a portion of the year.

A second AHEC has created an interesting funding mechanism to deal with their unique environment. Based in a private, osteopathic medical school, this AHEC must navigate in an environment filled with competing medical schools. In order to assume a neutral stance, the AHEC distanced itself from its host institution by forming an independent 501-c-3 corporation. All new non-federal funding for the AHEC goes through the non-profit corporation; it does not go through the university. So, when the state appropriates money, they do so with an agreement with the AHEC. This arrangement bypasses some of the turf issues. Because the local landscape is heavily dominated by what the
Program Director calls “500 pound gorilla types of health science centers and universities,” the arrangement gives leverage to the communities to achieve balance.

A third state system, where each medical school in the state is required to have a unique AHEC associated with it, is another example of how funding mechanisms can be crafted to match environment. The statewide AHEC Network devised a formula for funding all of the AHEC Programs that takes into account the size of each AHEC’s service area. An interview with the Program Director yielded the following insights:

It (method of funding) wasn’t always that way though. It was an evolution. Most of the AHEC Programs in the state are well funded – the state funds the AHECs. Sometimes one AHEC would lobby for additional funding if there was a need, and the lobbying for dollars caused difference in funding. This difference in funding caused problems. Five or six years ago the network came up with a formula to fund AHECs. Looked at the number of AHEC Centers in the state and things like how large the areas served are, population served and other things were looked at. We tried to figure out what would be fair and decided that however much money there is for AHEC – including federal dollars – we have state and federal dollars – would be combined. (...) Everyone agreed to the formula. That was good for us – we were a young program at the time. Now, we’re on the downside of federal funding. The whole pot of dollars is shared. We gain or lose together. If additional funding is needed for the coming year, we come up with a legislative budget request with a justification and the dollars are split according to the formula.

The best example of consciously crafting a funding stream in a specific manner was found in a fourth state. A key participant explained its inception:

The question of state support for AHEC went before the legislature. The funding that went into AHEC was very carefully crafted. We wanted to make sure that the AHEC funding did not surface every year before the legislature. So, we put the AHEC budget of $2 million per year into the global budget of (a state) School of Medicine. We buried the AHEC budget as a line item in the (school’s) budget so it wouldn’t keep coming up every year before the legislature. It’s the largest non-research grant in the budget at $2.06 million per year. (...) That comes out to
$421,000 per AHEC. That’s roughly what the federal officials thought was needed and the state legislature provided that amount.

A Center Director went on to note that the state legislative language is written broadly so that the Centers have discretion to use state AHEC funds to support a wide range of activities, including grant-writing activities.

*AHEC funding can serve as a catalyst for new projects.*

AHEC often serve as sponsors and provide grants or in-kind support to new initiatives. This seed money can help provide start-up funding for projects that later become independent. One AHEC we visited, for instance, has funded 575 projects since its establishment 13 years ago. Most of these projects were short-term and had small budgets ($1,000-$10,000) and focused on education and prevention. They also fund some health career activities and projects targeted to health professions students, though the majority of this type of programming is handled by another AHEC in the state.

Several specific examples of AHEC funding that has built new programs stand out for one AHEC. One AHEC Center used AHEC funding to initiate a distance learning program for nurses through a partner university. Respondents expect that that program will continue with self-generated funding after AHEC funding ends.

Another AHEC Center has a history of using AHEC funds as seed money to initiate innovative programs that later find other sources of financial support. With AHEC support, this Center started several allied health degree programs
that are now well-established and self-sustaining; few current students are aware of the AHEC origins. This Center is using its current AHEC funding to develop a Master’s program in urban public health in collaboration with a local university; this, too, is expected to become self-supporting over time.

Another example of how AHECs recognize needs and help meet them is in a state where the AHEC provided starter funds and logistical support to two schools to establish new nurse practitioner (NP) training programs. This also assisted a third new NP program in developing clinical rotations.

_Tobacco settlement funds are a recent source of financial support for AHECs._

Recent federal tobacco lawsuit settlements have resulted in a new potential for funding for AHECs. During our site visits, we encountered methods AHECs were using to address this tobacco funding.

In one state, it appears that roughly $150,000 of state funds will become available to the AHEC Program through grants from the $33 million tobacco settlement. However, this pot of money has the potential to create conflicts for the AHEC Program. An AHEC Center Director explained that the tobacco settlement grant money is to be awarded competitively; thus the AHEC could be competing for tobacco money with hospitals that contribute to the AHEC Program. This Center Director went on to note that the tobacco money has potential to be spent on projects which duplicate efforts already being made by AHECs on smoking cessation.
In another state, tobacco dollars are also being allocated in the form of grants. The Statewide Health Network was created as the method of distributing tobacco settlement funds. This Network will provide funding for preventive services and award grants to ameliorate tobacco-related diseases. The AHEC Program Director said that they are using tobacco money to expand research opportunities, for example, holding focus groups with African-American cancer survivors.

For a third AHEC, tobacco settlement funding has gone beyond the realm of additional funds for special programs or projects. State funding for the AHEC comes from state tobacco tax revenues of almost $415,000.

Tobacco settlement monies have great potential, but several respondents highlighted concerns about the impact of tobacco-driven projects in their AHEC mission and on other projects. A Center Director commented specifically on funding available from tobacco lawsuit settlements:

"It might not be as high a priority if there wasn’t so much money being thrown around. Tobacco cessation is not a demand of providers. They are more concerned about mental health in their patient populations and other problems… Tobacco money has been invested in tobacco coalitions and is used for education of health providers. Hospitals have been given money to do coordination of tobacco cessation. The AHEC Program Office has money for cessation efforts. We do not want to duplicate or stumble around existing programs."

*AHEC missions are influenced by their sources of funding.*

Although the adage “He who pays the piper calls the tune” is not completely true with AHECs, it is clear that funding sources do influence AHEC
missions and goals. One participant discussed how this pattern of funding
sources reflects the environment in which AHECs operate:

The key thing about all AHECs is that the old AHECs (not part of core models)
are really driven by sources of funding. What that does is that it makes it look
different from one place to another. Our multi-culture, multi-language, and
quickly growing community means that our needs are very different from other
areas.

One Center Director we interviewed mentioned that the lack of adequate,
stable AHEC funding has made the Center “reactive to funding streams, more
reactive than I would like; (we) got to point where we were so desperate we
needed to react.”

Another Center Director discussed how the AHEC may focus less on
interdisciplinary education if funding only comes from a medical school:

I think that the (other) schools should really become involved in the AHEC
funding process: pharmacy, social work, others. I think it’s important that if you
do that, though, that the med school doesn’t think they (the medical school) can
diminish their funding. Because the med school is paying most of the money
now, we are having to focus our efforts on the med students. We’re very
committed to interdisciplinary training, but it gets more difficult when you don’t
receive funding. I think that the funding structure pushes towards a more medical
focus model. I hope that we’re able to move back towards a more
interdisciplinary model. … As a non-campus AHEC, we have an advantage with
community activity.

Notwithstanding the acknowledged tendency to expand or shift mission
in order to find additional funds, many AHEC respondents were eager to point
out that they still were focused on the “core missions” of AHEC.

We have always kept the AHEC as part of our core being. Having grown up
within the AHEC system … being a collaborator, a partner, a catalyst… those are
part of our core values. We are committed to a diverse workforce. We are
committed to a workforce that serves under-served populations.
Other respondents discussed actively guarding against being distracted from their mission by funding opportunities. One Center Director felt that although there might be money available at the state level for certain initiatives the office ought not “be driven by a disease-of-the-month type approach.”

The “chasing money” sentiment was echoed by an academic partner in the same state concerning the AHEC’s strategic planning process:

It is a scatter gram instead of having strategic planning and discipline. (They) need strategic priorities. Sometimes it is the tail wagging the dog, stroke money comes in and then (they) want a program. Some of it is reality, you go where the money is but we need to focus on strategic planning. This comes from us being young and the natural evolution, we will become more strategic…

C. Conclusion

Our evaluative study yielded several clear conclusions about AHEC funding issues. First, obtaining ongoing funding from multiple sources is a necessity for successful AHECs. Most AHECs draw on a combination of federal and state funds, including funds from other HRSA programs (e.g., Center for Excellence in Women’s Health). Some entrepreneurial Programs and Centers have been successful in obtaining extramural funding from local, regional, and national foundations (e.g., to support loan repayment programs). To a lesser extent, Centers have succeeded in obtaining financial support from local health and human service delivery organizations and other community partners. Generally, however, such support takes the form of in-kind contributions rather than financial contributions.
The transition from federal basic funding to state support represents a critical event in the developmental trajectory of AHECs. The initial level of support and the form that it takes (e.g., as a separate line item in the state budget or as a line item in the host institution’s budget) play an important role in shaping the activity and viability of the AHEC. State support represents the most important (or potentially most important) source of funding for AHECs. Interview participants expressed skepticism that AHECs could ever become fully funded through grants, contracts, and local support. As one respondent put it, “It would be a mistake to assume that the AHEC will ever be completely self-sustaining. Government plays key role in AHEC. Those dollars make sure the University recognizes the importance.”

State funding plays such an important role because it serves as the primary source of funding for supporting AHEC infrastructure (e.g., staff salaries and overhead costs). With this infrastructure in place, the AHEC can deliver core AHEC Programs, seek additional grant funding, and provide programs for agencies, organizations, and foundations that only fund direct costs. Without stable, adequate state funding, AHECs become dormant or spend considerable time and energy securing funding from year to year.

It can be challenging for AHECs to convince state legislatures and policymakers to provide a level of funding that is adequate to maintain AHEC infrastructure. As one interview participant observed:
What happens is that the midlevel people oversee state projects and the state government wants to buy project time. They assume that the AHEC infrastructure is intact and that they can pay for a project rolled out on it. I have to say that part of the money that you are giving me has to go for basic infrastructure support. That is a hard conversation.

Funding drives priorities and accountabilities. Funding also determines influence. In some mature AHEC Centers, the amount of state AHEC funding and federal (model) AHEC funding is relatively small compared to the total amount of funding generated from grants and contracts. As Centers become less dependent on state and federal AHEC funding, they may become less responsive to (and identify less with) state and federal AHEC Program goals and priorities. Although they retain the AHEC’s mission and values, these Centers may not see AHEC as their primary identity or the most important set of activities. This tendency, which might be stronger among AHECs that have independent legal standing, could make it more difficult to rally Centers to respond to state and federal AHEC priorities.
Chapter 4: Programmatic Activities

When Congress re-authorized the AHEC Program through the Health Professions Education Partnerships Act of 1998 (P.L. 105-392, Section 751), it reiterated the AHEC’s mission: “To enhance access to quality health care, particularly primary and preventive care, by improving the supply and distribution of health care professionals through community/academic partnerships.” In addition, state and federal agencies have tasked the AHECs with improving the quality and diversity of the health professions workforce and, more recently, preparing the health professions workforce to respond to potential terrorist attacks, including the possibility of bioterrorism.

The goal of this chapter of the report is to illustrate the programmatic characteristics of successful AHECs and identify the barriers that inhibit AHECs from achieving their programmatic goals to increase the supply, distribution, diversity and quality of the health workforce. The section begins by examining the challenges and opportunities facing AHECs as they respond to simultaneous workforce shortages across several health professions and recent calls for greater bioterrorism preparedness. The discussion then turns to the core programmatic activities of AHECs: (a) community-based health professions education and training, (b) interdisciplinary education and training, (c) kids into healthcare, (d) quality initiatives, and (e) diversity initiatives.
A. Responsiveness To Workforce Shortages

The programmatic activities of AHECs currently take place within a context of simultaneous, and in many cases severe, shortages in nursing, pharmacy, dentistry, and allied health workforce. In the advance survey sent prior to the site visits (see Appendix A), all but one Program Office and one Center indicated that they faced existing and impending health professional shortages.

The AHECs showed limited statewide responsiveness to health professions workforce shortages. Although interview participants acknowledged actual or anticipated statewide shortages, site visitors observed few efforts to redirect or refocus programmatic activity on a statewide basis to respond to such shortages. Rather, AHECs maintained focus on their existing portfolio of programmatic activities. Several possible explanations might account for the limited statewide responsiveness of AHECs. First, AHECs might assume a passive posture toward statewide shortages if a perception exists that the AHEC does not have responsibility for responding to emergent, often cyclical, workforce shortages. For example, in one site visit, the AHEC Program staff indicated that the AHEC does not take an overt leadership role in statewide workforce supply and needs because these issues fall in the domain of the state’s Office of Primary Health Care. Second, AHEC Program and Center staff may view current workforce shortages against the background of chronic shortages of primary care professionals. As such, they might not see the need to redirect or
refocus ongoing programmatic activities to respond to emergent shortages. Third, AHEC Program and Center staff might consider the problems too immense and the resources too limited to tackle the shortages. As one interview participant noted, “(The) dental (shortage) is such an overwhelming area that it is a hard problem to get your arms around…. We’re not meeting the need.” Finally, as noted in Chapter 2, the latitude granted by the breadth of the AHEC mission and the sheer number of goals and requirements placed on AHECs may promote a lack of responsiveness to statewide workforce needs.

The limited statewide responsiveness of AHECs seems to be counterbalanced by the greater local responsiveness of AHECs to workforce shortages. For example, in the same state described above in which we observed an absence of statewide responsiveness to the nursing shortage, one AHEC Center interview participant noted:

(We’re) working with the regional people, workforce is such an issue for us. We are working with the workforce investment boards. They’re looking at nursing and allied health, and we got a grant from (the state department of health). So we’re working jointly with them.

Similarly, another AHEC Center Director offered the following comment about her Center’s responsiveness to local workforce issues:

A lot of our activities are directed toward looking at what’s going on in the community right at that point in time. Specifically, the last two years we’ve been working with nursing shortage issues and that’s been a real focus of our particular AHEC. Taking some of the health careers promotions and things and tweaking it to address the nursing shortage. Doing camps specifically for nursing, doing ambassador training with people that are in nursing so that everyone can be a good ambassador for nursing and so forth.
A focus group participant related the following poignant anecdote to illustrate how workforce needs are identified at the local level:

One of our main focuses (sic) when we started out was recruiting health professionals into the rural areas. This is a very rural region. What hit home was (that) in one county right near where I live, there was no doctor, no health professionals, no clinic, no hospital, period. A group of cheerleaders were coming through to go to a cheerleading competition and they crashed. The van flipped. I think the majority of them died. Not because of their injuries at the scene but how long it took them to get to a health care facility. So we’re been really pushing to recruit physicians, (physician assistants), nurse practitioners, etc. to these regions. Especially trying to work on home-grown and working with high schools to get people to go into health care careers.

AHEC Centers often have strong local connections that enable staff members to identify workforce needs quickly and mobilize community stakeholders rapidly to address workforce issues. For example, one AHEC Center did a survey of local students to determine what kept them from pursuing a nursing degree. Students overwhelmingly cited travel time as the greatest barrier. The nearest Registered Nurse (RN) program was two hours’ drive. So, the Center Director worked with the President of the local community college and the Chief Executive Officer (CEO) of the local community hospital to open an Associate’s degree program at a local community college. Local constituents, including the hospital CEO, reported strong satisfaction with the speed with which the AHEC pulled together local stakeholders and leveraged local resources to get the program started. The AHEC Center’s collaborative effort produced an immediate and visible impact, a factor that might also explain why AHEC Centers emphasize responsiveness to local needs. A board member said:
We’ve been able to bring new blood, new people into the community to practice. Before we just depended on families or someone that knew someone at medical school, a friend, to say ‘come practice in our area.’ We’re starting to see the fruits of our labor pay off.

B. Responsiveness To Bioterrorism Preparedness

Bioterrorism preparedness represents a new frontier of activity for AHECs. AHECs could play a unique and important role in preparing health professionals and communities to address the bioterrorism threat. AHECs possess a well-established network of connections and organizational infrastructure and, thus, readily serve as “platforms” for rolling out all sorts of statewide initiatives or community-specific programs, including bioterrorism preparedness training. Recognizing the contribution that AHECs could make, an interview participant from a state Department of Public Health (DPH) noted:

Yes, there is a role they (AHEC) can play. We are currently in the process of hiring new staff and working with the Office of Bioterrorism. Their organization (AHEC) could be instrumental in communicating plans to the community, working with us and local government.

Successful AHECs proactively seek out collaborative partners to prepare and deliver education and training programs on emerging issues like bioterrorism preparedness. For example, one AHEC Program felt a sense of immediate threat since given the recent detection of a fatal case of anthrax in its service area. Although the state’s Department of Health (DOH) has only just begun to turn its attention to the bioterrorism threat, the AHEC has already determined how to use its infrastructure to increase bioterrorism preparedness among health professionals. An Assistant Director of an AHEC in this state said,
“Educational materials were produced quickly to help curtail the panic (of bioterrorism) for the providers in the community. This reminded the state that the AHEC is the infrastructure for getting this material out.”

Border AHECs and urban AHECs felt the bioterrorism threat more acutely than did other AHECs. Reflecting the higher level of concern, one interview participant stated:

We will be bringing in chemical training (education)…. We have brought in education for AIDS, TB, and bioterrorism. We feel very vulnerable at the border…. It’s a dangerous place. We need to be consistently looking at how we can prepare people… to feel more prepared.

Most site-visited AHECs had developed or had begun developing CE courses to inform health professionals about the bioterrorism threat. One Center Director noted, “We will be at the table. It might be education, such as sponsoring CE or community forums.” For example, an AHEC Center staff member stated:

We are going to put bioterrorism into our CE programs next year. We have already planned our CE for this year because we do it a year in advance. [Our Center Director’s] got a heart for that too. They are involving the local emergency preparedness groups. Now they are being included whereas before they might not have been thought of.

Another AHEC had begun developing a teaching module targeted for inclusion of a bioterrorism tract in the community health curriculum at the affiliated medical school.

While many interview participants felt that AHECs had an important role to play in bioterrorism preparedness, a few expressed frustration that they could do more. A local health director and AHEC Center board member saw a
pressing need for attention to this issue. He felt that the AHEC could play an invaluable role in providing training and coordinating educational activities. Although he viewed it as one part of a much broader effort aimed at developing the public health infrastructure, he acknowledged highlighting the bioterrorism angle in order to obtain funding. “I believe that’s a key role for AHEC to play,” said the AHEC board member. Another state saw the importance of AHEC’s community connections and infrastructure to the bioterrorism issue. A focus group participant said:

The focus (right now) is on bioterrorism. So, what do you do in the community? It was the issue of the year. We’re asking the community, and a lot of them simply want to be kept in the loop. Respond to something. Such as community health workers and linking them with the community and emergency response team to be the first responder. Give them the tools to do this.

Some AHECs have found it challenging to gain visibility and respect from other agencies and organizations involved in bioterrorism preparedness. Some interview participants expressed frustration that the AHEC was invited or welcome to participate in bioterrorism preparedness. For example:

If state politics were different, we’d probably be working with the bioterrorism money. We’ve been asked but I think that we’ll maybe not be involved. I don’t think Organization X will play a role unless it’s a small one, AHEC probably not, either. It’s unfortunate. AHEC and Organization X have the ability to do these things, but the folks in charge just don’t believe in getting everyone involved.

C. Community-Based Health Professional Education

Community-based health professional education is a core activity for AHEC Centers and a strong initial focus of new AHEC Programs. Academic partners, community partners, and students all view community-based health
professional education as a central benefit of establishing and maintaining an AHEC. Given the federal AHEC Program requirement that 10 percent of undergraduate clinical education occur outside the confines of academic medical center, AHECs begin with undergraduate medical student rotations as the focus of their community-based health professional education activities. Moreover, many first- and second-generation programs placed (and some continue to place) considerable emphasis on developing community-based education opportunities for primary care residency programs. Research shows that residency location is the single strongest predictor of practice location (West et al. 1996; Rosenblatt et al. 1996; Pathman, Konrad, and Ricketts 1994; Rabinowitz et al. 1999; Pathman and Riggins 1996).

Site visits revealed that many AHECs remain focused primarily on medicine. However, AHECs also have developed and supported community-based education opportunities for other health professions including nursing, dentistry, pharmacy, and allied health (See Table 2). Later in this chapter, we will discuss the successes and challenges for AHECs in developing and maintaining involvement of other health professions disciplines. First, we will focus on AHEC activities to promote community-based undergraduate and graduate medical education.
Table 2. Student Rotations by Site Visit State (2000)

<table>
<thead>
<tr>
<th>State</th>
<th># of Medical Schools</th>
<th>Age of AHEC</th>
<th># of Medical Student Rotations</th>
<th>Total # of Student Rotations</th>
<th>Medical Students as % of Total</th>
<th>State's Total Under-served Population</th>
<th>Total Rotations per Under-served</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>11</td>
<td>31</td>
<td>350</td>
<td>528</td>
<td>66.3%</td>
<td>4,598,120</td>
<td>1.1</td>
</tr>
<tr>
<td>I</td>
<td>8</td>
<td>8</td>
<td>1250</td>
<td>1907</td>
<td>65.5%</td>
<td>1,343,981</td>
<td>14.2</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>25</td>
<td>90</td>
<td>265</td>
<td>34.0%</td>
<td>372,001</td>
<td>7.1</td>
</tr>
<tr>
<td>G</td>
<td>1</td>
<td>6</td>
<td>486</td>
<td>722</td>
<td>67.3%</td>
<td>84,254</td>
<td>85.7</td>
</tr>
<tr>
<td>F</td>
<td>8</td>
<td>11</td>
<td>390</td>
<td>929</td>
<td>42.0%</td>
<td>5,024,095*</td>
<td>1.8</td>
</tr>
<tr>
<td>A</td>
<td>4</td>
<td>9</td>
<td>460</td>
<td>1172</td>
<td>39.2%</td>
<td>3,054,434</td>
<td>3.8</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>18</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>887,669**</td>
<td>N/A</td>
</tr>
<tr>
<td>E</td>
<td>3</td>
<td>14</td>
<td>720</td>
<td>3015</td>
<td>23.9%</td>
<td>1,809,442</td>
<td>16.7</td>
</tr>
</tbody>
</table>

*Number of under-served population in County A only.
**Number of under-served population in State A’s AHEC service area only.
Note: Medical student rotations include allopathic and osteopathic medicine.

1. Community-Based Undergraduate Medical Education

AHECs play an instrumental role in developing and supporting community-based undergraduate medical education. AHECs promote community-based medical education through two key activities: supporting curriculum change in medical schools and developing community-based training sites. To illustrate, one site-visited AHEC helped its host medical school initiate three curriculum changes: (1) a one-week *Introduction to Clinical Medicine*, for the first-year class; (2) a four- to five-week elective at the end of the first year that involved about 75 percent of the class at the time of the renewal; and (3) a mandatory four-week family medicine clinical experience for all third-year medical students. These curriculum changes provide medical students with their first exposure to clinical practice with primary care practitioners in rural and inner city under-served sites. Interview participants noted that AHEC Program
staff played a key role in fostering these curriculum changes through their participation in the school’s curriculum committee.

Another site-visited AHEC also contributed significantly to curriculum changes in its host institution. Currently, 15 percent of undergraduate clinical training occurs in AHEC regions. Community-based education takes two forms. First, about 125 medical students per year complete a primary care clerkship. Second, about 134 third-year students per year rotate through a required four-week primary care clerkship that is distinct from the school’s family medicine clerkship.

AHECs also play an instrumental, and often leading, role in developing the network of community-based training sites needed to support such curriculum changes. In particular, AHEC Centers help identify possible training sites, recruit local providers to serve as preceptors, provide training and support to preceptors, and, at least initially, coordinate student placements. In some cases, AHECs played an ongoing role in managing the logistics of student rotations. In other cases, medical schools assume the responsibility for coordination. For example, one site-visited AHEC originally started a third-year family medicine clerkship, and it continues to support this activity by locating preceptors from rural and under-served areas. However, one interview participant noted:

AHEC started it, but Family Medicine loved it so much that they run it now. We just give them a little money to help with transportation costs and so forth. So, we don’t really… They provide the manpower to put that in place, which is good.
The AHEC is doing that for them, as far as juniors and seniors too. We have the same type of program. It’s just evolved differently. We have to find all the places for the 2nd years.

As noted earlier, AHECs focus substantial energy in their early years on meeting the federal requirement that 10 percent of undergraduate clinical education occurs outside the academic medical center. Our findings suggest that AHECs may play a reduced role in coordinating student rotations as community-based undergraduate medical education becomes institutionalized in medical schools. As one Center Director from a mature AHEC noted:

In (our state), we’ve never had the rotations like you see in other states. When I get a call from a student in State D who asked me about an AHEC rotation, I tell him, ‘You have to go to the medical school. I don’t have a rotation.’

Analysis of the CPMS/UPR data by number of medical schools, age of the AHEC, and number of student rotations somewhat support this site visit observation (See Table 2 above). State G has the highest number of rotations relative to the under-served population. It is a relatively new AHEC, but it has only one medical school so competition is non-existent. On the other end of the spectrum, with few student rotations relative to the total under-served population are State F and State B. Both were both first-generation AHECs and have many competing medical schools. The State F AHEC lost its funding and renewed it in 1991. The State B AHEC had difficulties when it came off federal funding and really only gained momentum back in the early 1990s. Service area is also relevant to this analysis. The State F AHEC has traditionally been a city-
based AHEC and would not have had any rotations outside this area. The State B AHEC has a large service area relative to the size and number of its Centers.

AHECs involvement in community-based undergraduate medical education creates significant value for academic health science centers, as the following comments suggest: “Coordinating all those logistics would not be feasible without the AHEC and the regions’ (AHEC Centers’) involvement.”

We have been able to decentralize medical education....what we’ve been able to do is bring the medical education components to seven different parts of the state. It’s all localized (and) community-based, and I think it’s...made health professions more accessible for the person that wants to get a degree...they can do that and not move. (Associate Director)

The thing about (the University) is that most of the 3rd year clerkships are done elsewhere, not done here. Students are rotated to other sites. The students get a better educational experience that way because they will be the only student on the service there. For example, OB goes to (hospital name deleted) because the students will get to do three deliveries. If they stayed here (at the academic medical center), they would be third in line for doing a delivery because residents would take priority.

I think the real benefit to the school is when I look at the total budget for our AHEC Program compared to the number of students that are trained through AHEC and what it would cost if that AHEC Program didn’t exist and all those students had to get all that education at the school, it’s quite a bargain. (Program Director)

Who else but an AHEC will give a student food, housing, lodging, etc.? No hospital in my district. (Center Director)

If it weren’t for the AHEC, most of those student that come into that program would never get out of those few square blocks in terms of their training. (Program Director)

Notwithstanding such favorable reviews, AHECs struggle to measure and document the effectiveness of community-based undergraduate medical education experiences on the supply and distribution of primary care physicians
in the state. Data availability remains a significant barrier. However, in one state visited in the study, a legislatively appointed commission collects and reports data on an annual basis about trends in medical education for that state. The most recent report provides suggestive evidence that AHEC-assisted efforts to increase the number of undergraduate medical students interested in primary care have taken hold. The report states that, of the 1,185 students graduating from the state’s medical schools between 1999 and 2001, 690 (or 58 percent) choose a primary care residency (e.g., internal medicine, family medicine, pediatrics, and obstetrics). The report also indicates that the state exceeds the national average in the retention of trainees into practice sites in the state. Of the 1,185 students graduating from the state’s medical schools between 1999 and 2001, 518 (or 44 percent) chose to remain in the state for their PY-1 residency. Of those staying, 319 (or 62 percent) chose to enter a primary care residency. The AHEC’s host medical school trains nearly two-thirds of undergraduate medical students in that state, suggesting that the collaborative effect of the AHEC and the medical school to change the state’s supply and distribution of primary care physicians is working.

It is important to emphasize that these encouraging results concern only one state. Interview participants from other AHECs reported formidable challenges in changing the dynamics of the state’s undergraduate and graduate medical education system. For example, in State B, the vast majority of medical students go out of state for residency training and many do not return. Similarly,
nearly 80 percent of the State I Medical School graduates choose residency programs outside the state. Several interview participants recognized the importance of building stronger relationships with residency programs in the state to help students become attracted to and apply to these programs. One residency director noted:

We have so many (residency) programs. We have a tough time filling the positions. I am competing with a few others. We have 35-40 residencies in the state. We all want to fill our programs with quality people and that’s a struggle. AHEC has the potential to bring some of that effort together because, ‘hey, we’re looking at this as a statewide project, guys.’

Moreover, student focus group results (See Appendix G) show that students did not feel that their community-based training experience led them to change their minds about specialty choice, practice location, or type of population that they wanted to serve. Caution should be exercised in interpreting the focus group results, given the highly selective process of focus group member recruitment. These findings are consistent, however, with those reported in earlier studies (Pathman 1994).

Nevertheless, student focus group participants viewed the AHEC-sponsored community-based rotation as a positive experience that made a lasting impression. They felt their placements improved their understanding of the community, the impact of their patients’ environment on health and treatment, the role health professionals can fill in the community, and the value of interdisciplinary practice. They also found the broader variety of health issues that they were exposed to, and the more individualized training, improved their
skills and developed their sense of personal style as practitioners in ways that are unique to the AHEC experience. For the most part, the difficulties that students cited were largely characteristic of problems associated with working with rural and under-served populations, not issues unique to their AHEC Programs.

AHEC-sponsored community-based rotations also have important effects on physician retention and quality of care in rural under-served areas. Focus group and interview participants described the many benefits to preceptors and, in turn, to their communities, of the opportunity to work with students. For example, preceptors report higher job satisfaction and reduced feelings of professional isolation due to field contact with medical students and adjunct faculty privileges with academic medical centers. As a result, practitioner retention in rural communities improves.

The fact that they (the preceptors) now get to work with students and residents I think has definitely increased the level of satisfaction with their profession. And so you would like to assume that it’s helped retain health professionals in some of our small communities that maybe would have left otherwise. (Associate Director)

Moreover, community-based physicians gain access to new knowledge through interaction with medical students and through contact with medical school faculty. As focus group participants attested, this should enhance quality of care.

Some of our preceptors, particularly for our rural and under-served rotations that we do with our students, indicate that just having the students with them for their residency raises their ability because they have to bone up. (University Administrator)

Our local preceptors say time and time again that they are sharper and better-read because they know that a nursing student is going to show up tomorrow, or a third-year resident or med tech is going to do a one-month rotation in their office. (Associate Director)
In sum, assessment of the impact of AHEC involvement in community-based undergraduate medical education activities must consider these secondary effects in addition to the primary effects on supply and distribution.

2. Community-Based Graduate Medical Education

Residency training has been a core element of the national AHEC Program since the program’s inception. Research cited earlier indicates that residency-training location is the strongest of initial practice location (Rabinowitz et al. 1999). Hence, community-based graduate medical education plays a key role in AHEC efforts to improve the supply and distribution of primary care health professionals. Like its undergraduate counterpart, community-based graduate medical education also provides important secondary benefits such as improved access to care and quality of care in rural under-served areas.

Different generations of AHECs play different roles in supporting residency training (Bacon, Baden, and Coccodrilli 2000). First-generation AHECs developed alongside new residency programs. In these instances, the AHEC often houses and runs the residency program. For example, one site-visited AHEC Center focuses most of its activity on the education and training of family practice residents. The AHEC Center houses and runs the family practice residency program at a public hospital co-located with the Center. The program trains 39 residents per year.

By the time second- and third-generation AHECs arrived, many primary care residency programs already existed. However, later generation AHECs still
play a valuable role by providing financial, educational, coordinating, logistical, and recruitment support to existing residency programs (Bacon, Baden, and Coccodrilli 2000). For example, one site-visited AHEC brings representatives from all family practice residency programs in the state to Kansas City to recruit future residents attending the Annual National Conference for Family Practice Residents and Medical Students. One of the AHEC Centers coordinates the booth design, promotional materials, and residency information. The AHEC Program also assists in producing the host medical school’s Family Practice Recruitment Fair, held in conjunction with the state’s Medical Job Fair. The Recruitment Fair provides an opportunity for family practice residency program throughout the state and other southern states to recruit medical students into their programs.

Finally, the AHEC Program also promotes community-based learning experiences for primary care residents. For example, the AHEC assisted residents in family medicine, internal medicine, pediatrics and emergency medicine to put an anti-tobacco use program presented to fifth grade students. Specifically, AHEC Centers provided residents with school contacts and presentation materials. One of the Centers also supported internal medicine residency program at a state-supported hospital through backing its Hepatitis B vaccination program.

Later generation AHECs sometimes struggle to develop and support primary care residency programs. For example, in one second-generation
AHEC, the development of medical residency programs was controversial and several attempts were thwarted when the hospital partners would not cooperate.

The program application from this AHEC Program described it this way:

The (name omitted) best efforts were stymied by rural hospital closings and realignment along with lack of rural residency funding for rural sites … After much work and negotiation the deal fell through because ___ Health System would not contribute to the residents’ stipends.

Moreover, some first-generation AHECs give less attention to graduate medical education over time as other programmatic activities take center stage. One AHEC Center Director noted, for example, that the Center’s “relationship with the Family Practice Program was one that has been very strong until the last couple of years.” The Center Director did not elaborate, but we observed little activity at the Center in support of graduate medical education.

Community-based residency training seems to offer a powerful mechanism for advancing AHEC objectives of improving the supply and distribution of primary care health professionals. Hard data on outcomes remain scarce. However, the application for one site-visited AHEC Center reported the following statistics.

To date, there are 226 graduates, of which 94 percent are practicing in primary care settings. Fifty percent (113 of 226) of graduates currently practice in state and/or federally designated medically under-served locations. Additionally, 40 percent (90 of 226) of graduates currently practice in community health centers or public health clinics designated to provide primary care to low-income individuals and families living in inner-city neighborhoods and in rural communities. In the last six years, we have recruited over 20 percent of underrepresented minorities, including African Americans, Latinos, and Native Americans.
Moreover, this AHEC-supported family practice residency program has affected significantly the local healthcare workforce. Eighteen of the 19 family physicians practicing in the five local community health centers are graduates of the AHEC-supported Family Practice Residency Program. Thus, the program has had a significant impact on that segment of the local health care workforce that provides care to inner-city, under-served populations. Moreover, this network of program graduates provides a strong base upon which to extend the family practice residency program further into the community-based settings. These family physicians have strongly voiced their desire to teach residents, on site, as part of a well-designed, community-based education track that fully supports their role as teachers and clinicians.

In another example of how the AHEC’s work has benefited the health professions, particularly in under-served areas, a pediatrician now with a rural health clinic in State A, was initially recruited into the Health Careers Opportunities Program (HCOP) and then received a National Health Services Corps (NHSC) scholarship. He was matched with the rural health clinic where he has practiced for 13 years and has acted as its medical director for the last 12 years. In that time, he has worked with the AHEC to mentor and precept many medical students and residents. As a result, he was fortunate to recruit another young resident through the AHEC’s residency placement program who later became an additional member of the staff at the clinic.
The State B AHEC offers some potential best practices in community-based graduate medical education. In particular, (City) AHEC and (Regional) Community AHEC have developed community-based family practice residency training programs that move residents out of the acute-care hospital setting to community health centers. For example, (City) AHEC has developed a formal Community-Based Education (CBE) track. According to the application, 15 residents join one of five community health centers for their third-year continuity training experience. They also participate in an innovative practice-based curriculum in which they develop projects that focus on the specific health care needs of the ethnically and culturally diverse inner-city communities adjacent to the community health centers. Community-based education-track residents participate in all of the residency program curricula alongside their main track resident colleagues who maintain continuity practices in the residency program at City General Hospital.

The (Regional) AHEC Center also developed a Community Oriented Primary Care (COPC) curriculum in which PGY-2 and PGY-3 residents participate in a longitudinal project. According to the application, the AHEC planned to develop COPC projects for CBE residents who would focus on the specific health care needs of the ethnically and culturally inner-city communities adjacent to the community health centers. However, interview participants noted that this program is still in development. AHEC supports these activities largely through salary support for participating faculty.
Similarly, the Community AHEC administers a one-time university grant to support the family practice residency track at the Community Health Center, a Federally Qualified Health Center (FQHC) serving the county region. According to the application, (regional) AHEC (the precursor to Regional Community AHEC) worked closely with State University Medical Center in the placement of both family practice residents and nurse practitioners in the regional area. “This is coordinated and proctoring is provided by the Family Practice Residency Program based at the Medical Center in the city.” The residency director emphasized that AHEC funding was critical in terms of getting the residency track at the regional CHC started.

Finally, the regional AHEC also focuses on residency training and seeks to provide more community-based medical education experiences. For example, the Family Practice Residency Program is developing a poverty medicine elective. In conjunction with community partners, the regional AHEC will help the Residency Program establish a community health outreach activity for PGY-1 residents, third- and fourth-year medical students, and nurse practitioner (NP) students. The outreach effort will focus on populations who face exceptional barriers to health care such as “the homeless, the uninsured, substance abusers, individuals monolingual in languages other than English, and geographically isolated populations such as those are encountered in remote rural farm worker housing sites” (regional AHEC application, p. 108).
The State B AHECs are not alone in offering valuable community-based residency training experiences. For example, another site-visited AHEC secured cooperative grants with the state’s DOH to develop a four-week community-oriented primary care (COPC) rotation for PGY-2 family practice residents at one affiliated program. At a primary health care center in State I, the AHEC Center places students and residents into the clinic and also deals with the “administrative burden” of their placements to lessen the responsibilities of the health care center. Along with primary care services, the Center provides obstetrics/gynecology, dentistry, and cardiology. The primary care center also utilized an AHEC-affiliated public health student to pull together data for a Community Access Program (CAP) grant.

AHEC support of residency training in community health centers (CHCs) offers an unparalleled opportunity to further both AHEC and CHC objectives. CHCs represent natural partners for AHECs, given the compatibility of their missions. As the example above suggests, AHEC-sponsored community-based graduate education programs can play a key role in recruitment and retention of primary care physicians in CHCs. This, in turn, furthers the AHEC objective of improving the supply and distribution of primary care health professionals, especially for under-served populations. The following quote from the CEO of a CHC with an AHEC-sponsored residency program illustrates the mutually beneficial nature of the AHEC-CHC relationship.
The nice thing about the residency program is that we train them here, they root here, and they stay here. All eight residents have graduated and moved on to community health centers or Indian Health Service in the Western United States. We cannot absorb them all, I wish we could, but we help place them where they are needed. That has always been our objective. When you get a student looking for a match, you can’t say, ‘When you’re done, you need to stay here in this community.’ It doesn’t work that way. What happens is that they have had a background or an interest in working with under-served populations. You get them here. They see what life is like. They see that community health centers are a good place to practice. Either they want to stay and we try to facilitate that or we’ve had a few of them say, ‘I’m thinking about going to Oregon. Do you know of any community health centers in this community.’ I say I’ll look into it and I connect them.

The State F AHEC provides another example of the power of AHEC-CHC collaboration. The State F Primary Care Association (PCA) – a non-profit trade association representing all of the community and migrant health centers (MHCs) in the state – received a Student/Resident Experiences and Rotations in Community Health (SEARCH) grant from the National Health Service Corps (NHSC) and approached the State F AHEC to help the association meet the objectives of the grant. Shortly after winning the grant, the association realized that it could not easily set up community-based rotations for health professionals because it did not have strong linkages with academic medical centers. Realizing that it would be “ridiculous to recreate everything that the AHEC already has,” the association’s Executive Director approached AHEC and said, “Let’s work together on this one.” AHEC agreed to contract with the PCA to run the SEARCH program and organize the clinical rotations. In the 20 months that the program has operated, the AHEC has helped place a total of 180 medical students, nurse practitioners, physician assistants, and residents.
3. Community-Based Education for Other Health Professions

AHECs have expanded their historical focus from undergraduate and graduate medical education to include community-based education (CBE) and training opportunities for other health professionals (See Table 2 above). The extent to which AHECs include other health professions in its community-based education and training activities varies as a function of the age of the AHEC, the ease of access to non-medical health professions students, and the relative influence of the medical school leadership in the AHEC. As one interview participant at a basic AHEC noted, “Medicine gets a lot of attention because of the regulation (i.e., the federal requirement that 10 percent of undergraduate clinical education occur outside the academic medical center).”

Age also makes a difference in terms of access to non-medical health professions students. First- and early second-generation AHECs have an advantage in securing access to such students because the AHEC was often in place before the other health-professions schools opened. In these cases, the AHEC plays a key role in helping the program build their rotation sites. As one site visit interviewee noted after a university developed Colleges of Pharmacy and Allied Health Sciences (PA, PT, OT, Behavioral Medicine), “AHEC was there in very beginning, and worked with the allied health programs to start with rotations, and find sites in rural under-served areas for clinical training.” In other cases, location rather than age represented an access barrier. Some AHECs
experience difficulty gaining access to non-medical health professions students if the host academic medical center does not include a school of nursing or a school of allied health. Politics among academic medical centers sometimes limits access to such students at other universities.

Finally, in some site-visited AHECs, the deans of the medical schools played a visible and influential leadership role. As we note elsewhere in this report, strong support and personal participation by medical school leaders offers several benefits. However, it can render the AHEC Program a creature of the medical school if not carefully managed.

Site visits offered several illustrations of the valuable role that AHECs play in developing and supporting community-based education for non-medical health professionals. For example, one AHEC helped bring about a curriculum change requiring rural rotations for all School of Dentistry seniors. This program allows senior dental students to render dental care to working class, uninsured, and under-served populations. It also provides an excellent opportunity for the dental students to expand their exposure to preventative, restorative, and oral surgery. In addition, the AHEC also helped establish rural externships for dental hygienists. All 52 dental students rotate through three different AHEC-sponsored rural sites that provide both clinical and hospital settings. Dental hygienists spend one week with rural dentists for on-site training in rural areas. The application notes that 22 hygienists went through the program in the last year.
AHECs also provide community-based education experiences for nursing students. Like the dentistry example above, these experiences not only enhance the quality of education that students receive but also enhance access to care for rural under-served populations. One NAO focus participant offered the following comment:

We have a couple of very rural counties that we have managed to get the BSN (Bachelor of Science in Nursing) programs to do...community clerkships or rotations there. In (my state), up until last year, we did not have school nurses in the schools. So you had these very rural counties with no nurses whatsoever in any of the schools. And now the BSN programs are actually taking classes in and are spending a month or 6 weeks in those schools providing prevention services and screenings to those children.” (Education Coordinator)

In addition, AHECs often play an instrumental role in establishing new health professions programs and schools. Through their involvement in such efforts, AHECs improve access to care for under-served populations. For example, one AHEC helped a School of Allied Health establish an occupational therapy (OT) and physician therapy (PT) program. Through his involvement with an AHEC-sponsored medical job fair, the dean discovered that his graduates did not go to rural areas because rural communities did not have enough work to support a full-time PT or OT position. He decided to try an experiment to create a combined OT/PT track. The dean indicated that AHEC provided a good deal of guidance and support in the development of the combined track. The AHEC helped perform a needs assessment and helped garner community support. The AHEC also helped to identify practices where graduates of the combined program could work. The AHEC also includes the
OT/PT program in recruitment activities at the medical job fair that it sponsors. The dean noted that the program graduates are in high demand. “They are being recruited to stay here in the city or go out of state instead of to rural areas.”

Similarly, another AHEC provided funding for planning and development of a substance abuse counseling certificate program and an Associate’s degree program at its affiliated university. The Center Director noted that nearly all of the 179 certificates and Associate’s degree program graduates practice in an under-served area. Enrollment keeps increasing. Now that that program has become institutionalized, the AHEC Center is turning its attention to the development of a graduate program in urban public health.

Finally, a third site-visited AHEC help establish a physical therapy (PT) program by providing speakers and helping the program locate clinical sites in the central, southern, and eastern parts of the state not used by other PT schools in the area. An interview participant commented:

One of the objectives of our curriculum is to promote working in under-served and rural areas…. I think that the thing that’s been very nice to see is that AHEC got us started. As they got us started and our alumni have now gone out and started into working in some of the under-served areas, we have our alumni coming back and self-generating a program and performing a lot of the stuff that AHEC got us started on. It was a nice catalyst.

D. Interdisciplinary Education and Training

AHECs employ two principal strategies for supporting interdisciplinary education and training: establishing and assisting mid-level practitioner programs, and developing and promoting training opportunities for team-based models of care delivery. Through these twin efforts, AHECs seek to increase
access by improving the supply and distribution of primary care health professions, while also improving quality by preparing the health professions workforce to work together effectively on interdisciplinary teams.

Several site-visited AHECs worked to establish mid-level practitioner training programs and promote more widespread use of mid-level practitioners in practice settings. For example, one AHEC Center collaborated with an academic medical center and a community college to train PAs and NPs in medically under-served sites. The program utilizes a statewide network of community sites and affiliations to accomplish this goal. Students take classes at the academic medical center and receive clinical training experience. Students have a required four-week under-served experience, which many meet by working in a local community health center.

In another state that had no NP or PA programs, the AHEC provided “seed money” and logistical support to two state universities to establish new NP programs. The AHEC also assisted a third new NP program in developing clinical rotations.

Several site-visited AHECs worked to develop and sustain training opportunities to enhance the ability of health professionals to work together in interdisciplinary teams. For example, the collaborative program described in the previous paragraph includes an interdisciplinary team-training component, whereby graduates of the program teach family practice residents and medical students at the academic medical center’s Family Practice Center. The AHEC
Center is also working to place a program faculty member at the local community health center to develop a model teaching practice for PA and NP students, medical students, and residents. Similarly, another site-visited AHEC Center is collaborating with its affiliated academic medical center’s nursing department to develop a practice curriculum in which NP students are paired with PGY-2 and PGY-3 family practice residents in clinical settings.

Another AHEC seeks to improve quality of care through the activities of its Interdisciplinary Task Force. The AHEC-sponsored Task Force has developed a model of interdisciplinary care. The AHEC also supported some educational workshops in several regions to introduce them to the model. With AHEC Center assistance, the faculty members working on the Interdisciplinary Task Force intend to develop some work sites that will implement the model and provide medical students with exposure to interdisciplinary treatment teams. Interview participants expected that the successful demonstration of the model of interdisciplinary care would, in turn, drive curriculum change in the medical school.

AHECs face two substantial barriers in fostering interdisciplinary education and training. First, the attitudes of health professionals and the politics of practice represent serious impediments to preparing the workforce for interdisciplinary approaches to care. Interview participants noted, for example, that pairing residents with nurse practitioners (NPs) often proves difficult in practice because residents and NP students fall back into the traditional
professional roles with the usual power distance separating them. Students are not alone in holding professional biases. A medical school dean interviewed in the course the study expressed his view that nurse practitioners were not quite primary care practitioners and that their agenda was to move onto medicine’s turf. In the same state, we heard a different attitude at the AHEC Center level. For example, one AHEC Center board member, an NP, was strong in her advocacy for the profession and for the success of the state’s and the AHEC’s ability to develop NPs.

Second, regulatory constraints imposed on the scope of practice for non-physician primary care providers (e.g. PAs, certified nurse midwives and NPs) affect the AHEC’s ability to facilitate and promote interdisciplinary training and education. In some states, non-physician providers have prescription-writing authority and a relatively independent scope of practice. In other states, non-physician providers do not have prescription-writing authority and their scope of practice is limited. One AHEC Program identified that the state’s restrictive scope of practice laws were inhibiting the deployment of PAs. City health departments in the state, for example, had no job classification for PAs. The AHEC Program Director said, “We brought in people to talk to higher ups to help them to understand what PAs can do.” The Program Director added that AHEC staff members have traveled across the state to visit rural health clinics and rural hospitals to help them learn how to best use non-physician providers in practice. In sum, the status of interdisciplinary education and training
activities in AHECs is poignantly captured in one interview participant’s lament that “maintaining the interdisciplinary focus is still a struggle.”

E. Health Careers/Kids-Into-Health Care

Most AHECs engage programmatic activities designed to introduce youngsters to health career opportunities and increase interest in health professions. Indeed, AHECs have been engaged in health careers recruitment activities for a long time. As one NAO participant noted, health careers recruitment activities represent the starting point of the continuum of health professions education and training.

In a perfect AHEC utopia we would be like a one-stop shop. We would help that student from junior high on up and then after they finish medical school we could be there for them to help establish their practice. And then as they grow in their practice also to offer CE and offer them that little edge to compete against the cities that would have the big schools and the big programs. (Board member)

AHECs have three distinctive advantages in promoting kids-into-healthcare. First, because of its centrality to the AHEC mission, AHECs bring a sustained focus on the issue of recruiting youngsters into health professions. By contrast, the interest and attention shown by other organizations wax and wane with changes in funding, staffing, and politics. Second, AHECs are uniquely positioned to link secondary schools with health professionals, healthcare delivery organizations, and universities. As we shall discuss in a later chapter, building partnerships is something that AHECs do well (See Chapter 7). Third, by creating collaborative partnerships, AHECs leverage the resources of individual partner organizations, enabling the group to do collectively what no
one organization could do alone. For example, when asked whether health careers activities would occur at a local high school without AHEC involvement, one interview participant replied:

Not to this level. What we are really talking about is a shortage of physical people power being able to go out into (the local high school), limited resources in the… school district. The medical magnet coordinator puts a lot on her shoulders and she relies to a great extent on that complement of effort that (AHEC) provides to (the high school) so that she can ensure the longevity of the medical magnet program funding other things that go on there. For example, we had a visit to the medical coroner’s office. We took 20 students over there. It took a lot of time to schedule all that, to get all the forms signed, arrange transportation, get the logistics arranged at the school. Could she have done it? Yes, but it would have been pressing and it would have challenged other priorities that she had for the program. It hadn’t been done before.

NAO focus group participants emphasized the AHEC’s role in introducing students to the possibilities of health careers and exposing health professions students to different practice settings than they might otherwise choose. For example:

We can reach kids who otherwise would not know what opportunities exist because they don’t have anybody to sit down and tell them ‘here’s what you can be.’ I think that’s a very big contribution that we can make a difference in these rural areas. And in the inner city…. (Board member)

There are a lot of different careers in health care, there is something else besides a physician or a nurse or an orderly. Where I grew up in Appalachia to me that’s the three people that were in health care...but getting some exposure to different kinds of careers like OT, PT, medical lab technicians, imaging, nuclear medicine...all those things are great careers and people make great livings at them but you don’t know anything about those kinds of things when you grow up in rural America. (Board member)

Common AHEC activities include hosting or supporting health career fairs, arranging guest speakers on health and health professions topics, coordinating shadowing programs wherein students follow health professionals
for a day, establishing health careers clubs, and developing mentoring programs.

For reasons discussed below, few AHECs track the educational and career choices made by students exposed to health career recruitment activities.

Nonetheless, interview participants testified to the popularity of such activities among students, teachers, and health professionals. One NAO participant noted:

The primary focus in our Center...is youth programs. We spend probably 80 percent of our time focusing on programs for junior high/high school. Our state spends very little money on education, so those teachers that are brought in on health science in particular usually have no experience teaching, so we’ve done a lot of teacher training programs as well as direct services for students. That’s been our focus.” (Associate Director)

AHEC efforts to increase recruitment into health careers face two significant challenges that potentially undermine the effectiveness of such activities. First, few AHECs have developed a true “pipeline” of health careers recruitment activities. Instead, most AHECs offer a smattering of disjointed activities that expose students to health careers opportunities and, in some cases, spark interest that might not otherwise develop, but do not systematically “pull” students into health professions. A well-designed health careers opportunities program (HCOP) would link those activities designed to expose large numbers of students to a broad range of health career options with those activities designed to deepen the interest and enhance the preparation of those students who respond positively to initial recruitment efforts. For example, a true “pipeline” approach might begin with a health careers day or guest-speaker. Students that showed strong interest might then participate in a structured series
of experiences such as weeklong science summer camps, shadowing programs, and mentoring (“buddy”) programs. By identifying high-potential recruits in middle school and by working with partners to provide these students with a logical sequence of preparatory and exploratory experiences through high school, AHECs might increase the number of students actually entering health professions education and training programs. The State E AHEC could offer a useful model for such a “pipeline” approach.

Second, AHECs do not track the educational and career choices of students exposed to health careers recruitment activities. Consequently, AHECs cannot monitor, manage, or report the effectiveness of such activities. Most AHECs know how many students attended a health careers fair or how many students participated in a shadowing program, but few AHECs know how many students exposed to health careers through AHEC-sponsored activities actually entered health professions careers. Some AHECs are attempting to address the tracking issue. For example, one Center Director stated:

We are also tracking our younger students. This is a priority for us. This is the first program that we had (i.e., tracking medical students). Now that we have learned the hard way, we aren’t going to do it that way again. We are tracking our high school students. Our high school programs have had 1100 kids are part of our part-time programs. Out of 434 out of high school, we got an 81 percent response rate. We’re not going to stop at that. We get a couple of kids that took part in our first (science summer camp) program in 1994 that are actually…. One is in her second year in her dermatology residency at (the University). It’s going to take us a while to see results from these programs. But, we’re going to track them.

Several interview participants commented that such tracking, while valuable, is difficult to do. AHECs rarely have the human or financial resources
to track students. As one interview participant noted, “It’s a very difficult piece when you consider meeting the needs of the students versus going to this other side of taking away time from the students from being able to put physical time into for me to do an evaluation.” Moreover, obtaining relevant information also proves labor-intensive and time-consuming, especially since the tracking period extends for several years in the case of middle-school students. Absent of tracking, however, AHECs cannot gauge or improve the effectiveness of health careers recruitment activities, or determine whether limited time and resources could be better spent on other AHEC programmatic activities.

Despite AHEC’s historical focus on health careers, many NAO focus group participants were not familiar with the Kids-into-Healthcare initiative of the DHHS. Moreover, those who were familiar with the DHHS initiative expressed concern that it duplicated, rather than complemented, current AHEC activities. The following quotes illustrate the range of opinions AHECs had on the initiative.

I’ve heard of it (but am) not involved with it. I think it has a web site that I’ve possibly come across. And it’s not been recent enough that I can remember. But I think I’ve seen a web site. (Career Services Coordinator)

Never heard of it. (Community liaison)

They’re starting programs like Kids Into Health Careers, which is what we’ve been doing for like 30 years. And they don’t involve us in it. I don’t think they know what we do. (Center Director)
Finally, not all AHECs consider health careers opportunities programs (HCOPs) as central programmatic activities, particularly given the relatively limited resources they possess. One AHEC Center staff member stated:

There are other low-hanging fruit here in the area, like the community colleges and their pre-med students, for goodness sakes. I never talk to them. I have their number on my desk though.

F. Quality Initiatives

AHECs engage in a wide range of programmatic activities designed to improve quality of care through supporting health professionals already in practice. The number and types of programmatic activities designed to improve quality of care varied greatly across AHECs. So, too, did the relative emphasis on this aspect of the AHEC mission.

Continuing education (CE) represents the cornerstone of most AHEC efforts to improve quality of care. According to the CPMS/UPR data, AHECs offered a total of 611 CE courses in 2000, reaching 15,484 providers. The amount of CE done by AHEC Centers varies from a low of four courses offered to a high of 235 courses offered. The median number of CE courses was 119.5. Some of this observed variation can be attributed to the differences in the local market for CE programs. AHECs that arrive late in the health professions education landscape find it more challenging to offer traditional CE programs because other CE providers have already saturated the local market. However, they can still offer CE programs in special topics geared toward the AHEC mission (e.g.,
cultural competency) as well as CE programs that address new concerns (e.g. bioterrorism and HIPAA legislation).

AHEC efforts to improve quality of care go beyond providing CE. As noted above, community-based education activities also improve quality of care available to rural under-served populations. Yet, AHECs also engage in many special initiatives to improve quality of care. Several AHECs, for example, have secured funds from state tobacco settlement funds to educate primary care physicians, nurses, social workers, and lay health advisors about effective smoking cessation techniques. Likewise, several AHECs sponsor and coordinate local offerings of the (program name omitted) Program, which provides rural emergency medical techniques with training to respond to farm accidents. By all accounts, these programs are very popular among participants and generate local visibility and support for AHECs.

In some cases, AHECs efforts to improve quality of care focus on directly changing clinical practice. For example, the State G AHEC collaborated with the State G Program on Quality Health Care to identify physician practices that might benefit from better use of the clinical practice guidelines for diabetes that the program developed. Specifically, the AHEC helped identify practitioners with whom the program could work with to pilot test the clinical guidelines (and a related diabetes intervention model) before taking these tools statewide.

In other cases, AHEC efforts to improve quality of care focus on enhancing the skill levels of health professionals. For example, the Regional
Community AHEC has provided funding to Regional State University School of Nursing to increase the accessibility of RN-to-BSN program for nurses in the more rural reaches of northern State B. The Regional State University plans to upgrade about 120 RNs to the BSN level. Over the years, the program has taken several forms beginning with weekend scheduling and flexible pathways, moving to distance learning through satellite technology, and now employing distance learning through web-based courses. The use of the Internet will enable the program to reach nurses in remote regions and geographically isolated areas. This program not only increases quality of care by upgrading the skill levels of nurses, it also contributes to improved retention of nurses in rural areas. The application notes that nurses recruited to rural areas from urban areas “often stay less than a year because they are not accustomed to rural nursing and rural life.” The application also notes, “many rural hospitals are now actively encouraging staff to upgrade their degrees as an approach to keeping people who are committed to the community.”

AHEC efforts to improve quality of care often involve providing practice support to providers by increasing access to computers, Internet resources, and library materials. Technology has enhanced these activities, enabling AHECs to connect students, practitioners and the community with tools and information from academic health science centers. Focus group participants offered the following examples:
We’ve installed a number of workstations in small hospitals...and in our student housing sites to connect back to our medical school library. Many of those resources are now commonly available on the Internet, but we’ve added some products that are licensed (and) we restrict the access to our physician preceptors so that they can get very quick access for the latest and greatest in pharmaceutical or clinical guideline information. (Program Director)

Our Center developed a RAHEC Net, which is an Internet service for all of the country doctors to be able to be connected and also to have Internet resources available in their offices, actually place equipment in the office, maintain the service, all those kind of things. So they can go out to Lonesome Doc and Grateful Med and all those medical resources that are out there because rural physicians can’t leave their practice to go to CE. (Board member)

Practice support for isolated and rural students and practitioners is a major reason the AHECs have embraced the use of technology as NAO participants observed: (Within the last 5 years) our state is focusing more on technology than we started off doing....They have mannequins now, simulated bodies where you can operate on them. (Board member)

One of our big focuses is practice support, where we broadcast our grant rounds for our medical school to 23 sites in our region, (including) many community health centers and places that are in under-served areas. AHEC underwrites the cost for those folks. (Center Director)

**G. Diversity Initiatives**

Increasingly, AHECs recognize the importance of developing and preparing a more diverse health professions workforce to provide care for a more diverse population. Although most AHECs focus on racial and ethnic diversity, some AHECs view diversity as also encompassing linguistic and cultural diversity, as well as low literacy and at-risk populations. Diversity initiatives typically focus on increasing recruitment and retention of under-represented minorities in health professions, enhancing the cultural competency of health professionals, or both.
Several focus group participants at the NAO conference viewed AHEC activities designed to increase recruitment of under-represented minorities into health professions careers as centrally important to improving access to care and increasing quality of care are:

We are 97 percent Caucasian, but that three percent can’t get their health care from anybody that looks like them. So we’re doing a lot of recruiting of kids, trying to build up and develop some enrichment programs to get them into school so that then they can be those future work forces. (Center Director)

Out on the reservations a lot of the health care providers that come in are maybe Anglos that are trying to repay their loans, so they stay long enough to do that and then they’re gone. But to improve the provision of primary care we think, or it’s generally assumed, that if you could get local people to be providers they’d be more likely to stay. (Community liaison)

Another area that we’re not meeting the need is minority recruitment for the health care professions. In our area, we have large pockets of minorities. The problem we find is we will recruit qualified individuals to try to go into speech or occupational/physical therapy or nursing, but if they can meet the criteria for those programs there are so many other programs out there to send them to medical school or...law school that they go right on to the professional side. So, we really have a hard time getting people back in the community that can relate with the people we are serving.” (Board member)

The Regional AHEC in State B has developed an exemplary health careers opportunities program (HCOP) in collaboration with a local high school and the University. The high school runs a medical magnet program that serves an ethnically diverse student body (e.g., 46 percent Latino and 30 percent Asian). AHEC and the high school work together to offer a health career fair that serves 500 students a year, a clinical rotation program in which 12 medical magnet students rotate through the school’s health center, and a peer health educator program focused on adolescent health issues (e.g., tobacco-use prevention and
cessation). The AHEC and the University also work together to provide a “buddy program” for students expressing an interest in attending medical school.

Similarly, many AHECs offer education and training to enhance the cultural competence of health professionals and healthcare delivery organizations as a means for increasing access to care and improving quality of care, especially for under-served populations. Examples include:

- Developing cultural competence curricula for use in medicine, nursing, and allied health schools
- Developing CE programs and training modules on cultural competence and workforce diversity management
- Providing students and residents with education/practice support to enhance their understanding of the health care needs of minority populations
- Spanish language training (these programs have resulted in two unforeseen benefits such as increased trust of providers by Hispanic patients and an informal health careers pipeline as providers spend time with Hispanic children)
- Community and public school outreach activities centered around disease prevention for certain populations (i.e. hepatitis B in the Asian community)
- Enhancing cultural competence of healthcare delivery organizations through diversity training, values-clarification exercises, and human resource management consultation.
The changing demographics of the U.S. population have contributed significantly to the growing awareness of the need for AHECs to address diversity issues. From NAO focus groups, we heard:

My AHEC is also in an area where we have a large migrant population that now is staying in the county. My sister AHEC used to be hospital-based as I am right now. But, now they are located at a Spanish community center. So what I’ve done is they’ve come to my hospital system and they’re doing medical terminology in Spanish and we’re kind of tailoring it to different departments - the ER, maternity, and it’s been very successful. The hospital system actually relies on us because they realize they need to outreach to this new community that’s there. We also are getting into medical interpretation and translators and proper use of a translator. ... I want to target these children of the migrants that now are living in our community. I think this is where we should be heading right now. (Center Director)

I see a big challenge (in) the whole issue of the cultural competency workforce recruitment of minorities...into health care. I don’t think we’ve cracked that, not yet...and I think it’s going to become even more of a challenge in our state as the Hispanic population grows. (Associate Director)

Strong leadership by under-represented minorities within academic health science centers has also contributed to greater attention to diversity issues. For example, one site visit state had an African-American Program Director who benefited from strong support from an African-American Medical School Dean. The Program Director gained credibility and entrée into the minority community, but found significant room for improvement in the relations between the university and urban minority community in which the university is located.

We are using tobacco money to shore up our research mission. We have used some of that to have focus groups with African-American cancer survivors and found out there was a lot of distrust of the health system. In this town it’s not Tuskegee, it’s ____ University.
Despite increased involvement in diversity initiatives, the level of under-represented minority participation in AHEC Programs varies greatly by state (See Table 3). Care should be exercised in interpreting these data given uneven reporting across AHECs (e.g. data were not reported for the State C AHEC). Nonetheless, the analysis is illustrative of the ways in which an AHEC Program’s impact can be measured relative to a common denominator (i.e. in this case the state’s total minority population). The table also illustrates why it is important for AHECs with low minority populations to take an expansive view of diversity to include low literacy, low income, and at-risk populations.

Table 3: Minority Participation in AHEC Programs (2000)

<table>
<thead>
<tr>
<th>State</th>
<th>Total Number of Minority Graduates</th>
<th>Total Number of Minority Program Completers</th>
<th>Total Number of Minority Faculty</th>
<th>Total Number of Minority Participants**</th>
<th>Total Minority Population (non-white, single race)</th>
<th>Minority Participants/Total 100,000 Minority Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0</td>
<td>225</td>
<td>15</td>
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<td>575</td>
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<td>1028</td>
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<tr>
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<td>12,126,050</td>
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<td>7,610,914</td>
<td>1.4</td>
</tr>
</tbody>
</table>

*State F’s population numbers represent County A only. State A data include only the service area of that AHEC.
**Participants include: Graduates, Program Completers, and Faculty.
Note: Data for State C are not available. Minority is defined to include: American Indian, Alaska Native, Asian, Black, Hispanic/Latino, Native Hawaiian, and other Pacific Islander. White disadvantaged and white non-disadvantaged were excluded.

Finally, it is important to note that AHECs face significant policy and political challenges in maintaining their efforts to increase recruitment of under-represented minorities into health professions. Anti-affirmative action
legislation, such as Proposition 209 in State B, as well as recent judicial decisions, represents critical public policy barriers to creating a more diverse health professions workforce. Even though the number of under-represented minority college graduates has increased significantly, applications to medical schools from minority groups have not increased, and may have even decreased (Magnus and Mick 2000; Brotherton, Simon, and Etzel 2001).
Chapter 5: Organization and Structure

The Task Order Scope of Work that structured the current evaluation explicitly emphasized organizational themes. In the planning for the 1990 evaluation, a work group of stakeholders, in 1987, developed a conceptual model of the AHEC process that saw the organizational structure of the programs as determinants of the interventions and the outcomes in a linear fashion (see Figure 3). The organizational structure that was most important to that work group was the pattern of partnership between university health sciences centers and communities.

Figure 3. External Advisory Committee Organizational Concept

In developing the work plan for the current study, the evaluation team generated a more integrated conceptual model containing multiple feedback loops (see Figure 4). In this model, organizational structure, educational interventions, and community impacts mutually influence one another. This more complex conceptual model reflects a premise of contemporary organization theory that organizations operate as open systems (Scott et al. 2000; Bowditch and Buono 2001). Organizations interact with their environments and are influenced by multiple environmental forces or inputs. Environments not only affect organizations, but organizations affect environments. These
environmental effects, in turn, change the operating context of organizations. As vehicles for inter-organizational collaboration (i.e., as “inter-organizations), AHECs are especially sensitive to environmental factors. These factors not only shape the programmatic activities of AHEC Programs and Centers, but also their organizational structure.

**Figure 4. 2002 Evaluative Study Organizational Concept**

The adoption of a more complex conceptual framework permitted the evaluation team to explore the interrelationships of structure and environment at the level of both the AHEC Program and the AHEC Center. Some of these interrelationships materialize in cross-references to different chapters of this report. In this chapter, we discuss how several features of the immediate operating context of AHECs affect the organizational structure of Program Offices and Centers. Attention then turns to the internal organizational structure of Program Offices and Centers. The chapter concludes with an examination of the inter-organizational structure of AHECs as statewide programs.
A. AHEC Programs as Open Systems

The structure and politics of academic medicine define the immediate operating context of most AHEC Program Offices. In earlier chapters, we discussed the impact that this immediate operating context has on the history, development, and sustainability, mission, and goals of AHEC Programs. Here, we discuss the organizational impact of the structure and politics of academic medicine.

The relative position (vertical centrality) of the AHEC Program Office within the administrative hierarchy of the medical school plays a significant role in determining the legitimacy and support of the AHEC Program within the academic medical center. Successful AHEC Programs had Program Directors who are located at a level just below that of the academic health science center chancellor, president, or dean of the medical school. In describing the characteristics of the ideal AHEC Program Director, a medical school dean stated:

I think it needs to be an Associate Dean or a Program Director. There has to be a line person involved in overseeing it. Otherwise you can’t stand up and ask for your fair share. Around here the informal rule is that something I think is important is at an Associate Dean’s level.

Site visit observations suggest that Program Directors located near the top of the organizational hierarchy can translate their greater organizational power into more staff, larger budgets, more in-kind contributions, greater access to information, and more sway in institutional decision-making. As a Program
Office’s size and complexity grows, the Office’s organizational structure also changes, most notably its internal authority structure, communication structure, and reliance on rules and standardized procedures.

We observed several instances in which the AHEC Program is centrally located within the host medical school. For example, Dr. (name omitted) of a University School of Medicine serves as the Program Director for the State I AHEC. He also serves as Chair of Department of Family Medicine, Associate Dean for Primary Care, and Director of the Center for Primary Care. Several interview participants noted that the vertical centrality of the State I AHEC Program within the School of Medicine’s administrative hierarchy sends a strong message about the School’s commitment to primary care generally and the State I AHEC Program particularly. Compared to some of the other site-visited AHEC Programs, the State I AHEC Program Office had a relatively large complement of professional and support staff, sophisticated information technology and telecommunications, standardized polices and procedures, and political clout within the host medical school. Other site-visited AHEC Programs did not seem as well situated as the State I AHEC. Their size and structure reflected their relatively poor placement in the “food chain” of the academic medical center.

Several site-visited AHEC Programs connected to the leadership of the academic health science center through “council of deans” or committees of constituent academic programs. The presence of such councils or committees does not seem indicative of the vertical centrality of the AHEC Program in the
hierarchy of the academic health science center. Rather, these councils or committees function as advisory bodies.

The administrative integration (or horizontal centrality) of the AHEC Program Office with other primary care initiatives within the academic medical center also plays a significant role in shaping the structure of the AHEC program. If a single person oversees the AHEC Program and all other related primary care or community-oriented initiatives, the AHEC Program Office benefits from greater access to resources and greater political clout. As in the case of vertical centrality, horizontal centrality often leads to more staff (i.e., FTEs), more specialized jobs, greater reliance on formal rules and procedures, and somewhat greater delegation of authority to non-managerial staff. In addition, horizontal centrality increases organizational effectiveness by enhancing coordination of related programs and by creating opportunities to leverage pooled resources. Fewer turf battles erupt and fewer opportunities arise for related programs to work at cross-purposes.

Again, we observed several instances where administrative integration seemed to provide organizational benefits to the AHEC Program. In the case of the State I AHEC, one interview participant noted, “The fact that Dr. (name omitted), the Chair of Department of Family Medicine and the Associate Dean for Primary Care and Director of Center Primary Care and as the grantee department of the State I AHEC, his presence ensures that there is close cooperation and integration.” The multiple hats worn by him also reinforce the
administrative integration of the State I AHEC Program related to initiatives at the State I University. As the Director for Predoctoral Education for the Department of Family Medicine, Dr. (name omitted) has the responsibility for all courses offered under the auspices the Department. As Associate Director for the Center for Primary Care, he also has responsibility for all educational programs operating under the auspices of the Center. Moreover, as Associate Director for the Center on Primary Care, he serves as Chairman of the State I AHEC Interdisciplinary Task Force.

Similarly, the Program Office of the State E AHEC is housed administratively in the Office of Medical Education of the School of Medicine. Dr. (name omitted), the AHEC Program Director, serves as the Associate Dean for Academic Affairs, and reports directly to the Dean of the medical school. Through his leadership of the Office of Medical Education, Dr. (name omitted) oversees accreditation, oversight of residency programs, contracting with hospitals, and new curriculum initiatives for undergraduate and graduate medical education. According to the dean of these schools of medicine, “It made a lot of sense to put all of these activities under one umbrella.” The State E AHEC Program Office benefits from its vertical and horizontal centrality within the School of Medicine. As in the case of the State I AHEC, the State E AHEC Program Office has a relatively large complement of professional and support staff, sophisticated information technology and telecommunications,
standardized polices and procedures, and political clout within the host medical school.

**B. AHEC Centers as Open Systems**

Like AHEC Programs, the organizational structure of AHEC Centers is also highly susceptible to being influenced by environmental factors. Two environmental factors seem highly salient. As noted in an earlier chapter, funding opportunities profoundly influence the programmatic activities of AHEC Centers (See Chapter 3). Programmatic activities, in turn, affect the organizational structure of the AHEC. As the volume, complexity, and diversity of programmatic activities grows, AHEC Centers grow in size by adding more specialized staff. Job descriptions and operating procedures become more formalized. Decision-making authority becomes selectively decentralized to program managers. Similarly, as the volume, complexity, and diversity of funding streams increases, AHEC Centers hire one or more specialists with financial and accounting skills. Decision-making authority for payroll, budgeting, purchasing, and financial reporting becomes selectively decentralized from the Center Director to these specialists. These specialists, in turn, introduce standardized procedures for program managers to follow in terms of budgeting, purchasing, and reporting. The organizational structure of the State E AHEC Center illustrates how funding and programmatic activities increase the organizational size and complexity of a Center.
Likewise, community needs and opportunities also affect Center organizational structure. For example, the number and mix of Center staff change in response to changes in community need and opportunity for particular programmatic activities. Changing needs for library and information services illustrate the feedback that an AHEC-induced community impact can have on AHEC organizational structure. As the AHEC Center attempts to improve the telecommunications infrastructure of their local communities – and the Internet skills of local providers – community demand for traditional library and information services diminishes. In response to diminished demand, AHEC Centers alter the size and composition of AHEC staff to better support other programmatic activities. In a similar fashion, the organizational structure of AHEC Centers becomes more formalized and decentralized when Centers open satellite offices in an effort to increase their geographic reach.

C. Internal Organizational Structure

AHEC Program Offices and Centers are typically small in size. The nine site-visited AHEC Program Offices reported an average of 10.2 full-time equivalents (FTEs), a median of 5.2 FTEs, and a range of three to 26 FTEs. The fact that one of the site-visited Program Offices also operated as a single Center accounts for the wide range of staffing shown in these figures. Similarly, the 15 site-visited AHEC Centers that reported staffing data on the advance survey reported an average of 5.9 FTEs. Two AHEC Centers reported nearly 20 FTEs, while one AHEC Center reported less than a single FTE.
Reflecting their small size, AHEC Program Offices and Centers have relatively simple organizational structures. As in other small, entrepreneurial organizations, the typical AHEC Program Office or Center consists of one or two top managers and a small staff who do most of the basic work. The division of labor among staff members is relatively simple. Although some job specialization occurs along professional lines – clinically trained staff members might oversee more clinically oriented programs – everyone generally pitches in when needed. Direct supervision by the Program Director or Center Director serves as the prime coordinating mechanism internally. Formalization and standardization tend to be relatively minimal (e.g., we observed few sites with written job descriptions and formal policies and procedures manuals). As in entrepreneurial organizations, the “strategic apex” – that is, the position of the Program Director or Center Director – is the key part of the Program Office or the Center (Mintzberg 1979) (See Chapter 6 for further discussion about the importance of Program and Center leadership). Here, it is important to note that the “strategic apex” in entrepreneurial organizations represents the nexus of decision-making authority. Thus, power within Program Offices and Centers is centralized vertically and horizontally in the position of the Program Director or Center Director. Like other entrepreneurial organizations, the typical Program Office or Center structure is lean and flexible – qualities that offer advantages in dynamic environments.
As Program Offices and Centers grow in organizational size, they also grow in organizational complexity. An organization with only 20 FTEs is still a small organization. Nonetheless, we observed in some of the larger Program Offices and Centers attributes of “machine bureaucracies” (Mintzberg 1979). Specifically, we noted greater division of labor among staff, greater reliance on rules and standardized procedures, and greater delegation of decision-making authority to people in non-managerial positions, such as financial specialists and other professional staff members.

AHEC Program Offices and Centers benefit from the advantages and suffer from the limitations that face all small organizations. Reflecting their small size and reliance upon informal coordination mechanisms, AHEC Centers, and to some extent AHEC Program Offices, generally have “warm” internal climates characterized by strong interpersonal bonds. Indeed, interview participants sometimes described their Program Office or Center as feeling like a “family.” For example, when asked about the content of monthly staff meeting, one Center staff member replied:

We talk about what’s going on with our programs as well as with us as individuals. That’s very important when you do community outreach work. We’re very close and we care about the well-being of everyone who works here.

We also observed evidence of the “family” atmosphere of Program Offices and Centers in the grief and loss felt by staff members occasioned by the departure or death of a beloved director or staff person. As site visitors, we experienced the “family atmosphere” of AHEC Centers in the warmth and
hospitality in which staff members treated us and treated each other. Beyond creating a nice place to work, theory and research shows strong group-oriented organizational cultures contribute to greater teamwork, enhanced job satisfaction, and reduced turnover (Quinn et al. 1996).

On the downside, the lean staffing of simple organizations often leads to job overload when task demands outstrip internal capacity to respond. Simple organizations often scramble to keep up with an increasing volume of work. Tight labor markets and relatively low pay scales exacerbate the problems of understaffing. Some of the site-visited Program Offices and Center struggled with these problems.

Finally, the heavily reliance in simple organizations on the “strategic apex” as the nexus of decision-making implies that top managers (i.e., Program Directors and Center Directors) must have strong leadership capability, entrepreneurial energy, and excellent communication skills. So much depends on the qualities of the Program Director or Center Director. As one interview participant put it, “If you don’t have leadership you don’t have anything.” In addition, as we noted in an earlier chapter, heavy reliance on the leadership provided by Program Directors and Center Directors creates significant organizational vulnerability to disruption, and even dissolution, when leadership turnover occurs.
D. AHEC Center Incorporation Status

A lively discussion has occurred over the course of the national AHEC Program about to which AHEC Centers and AHEC Programs should be independent of each other and independent of their host or partner organizations. The original legislation foresaw relatively independent entities at some remove from the academic health centers. Among first-generation AHECs, only North Carolina and South Carolina created AHEC Centers as separate legal corporations, but these states quickly became the model for future AHEC Center structures. The request for proposals (RFPs) for federal AHEC funding issued in 1978 further strengthened the emphasis on freestanding, independent organizations by specifying a clear independence from academic entities and detailing the structure of an advisory board. There were certain situations where overlap existed between academic organizations and AHECs, especially in Arkansas. These situations were allowed to continue under “grandfathered” language in the rules.

When AIR conducted its evaluation in 1990, 63 of the 105 AHEC Centers (or 60 percent) were separate legal corporations having 501-c-3 tax-exempt status. Twenty-four AHEC Centers were community hospitals; 12 were either a college or university or some part of an academic entity; and five were associated with a clinic, local government or a medical school. The AIR Evaluation characterized this diversity of legal and organizational forms as “structural” options for AHEC Centers. The language in the 1978 reauthorization has
encouraged AHEC Centers to incorporate separately and seek 501-c-3 status. However, the reauthorization included language that allowed exceptions for universities and colleges to operate Centers.

Twenty-nine (or 73 percent) of the 37 AHEC Centers visited in the course of this study were organized as separate legal corporations with 501-c-3 tax-exempt status. Not surprisingly, the exceptions tended to be found in first- and early second-generation AHECs. In some later generation AHECs, for example State I and State G, the decision to establish Centers as separate legal corporations involved little debate. In others, such as State E, the decision did not come so easily. One State E interview participant noted, “It was tough for the medical school to suck it up.” However, there was a sense that allowing the Centers to operate as independent and entrepreneurial entities would result in a more successful program than one that operated simply as an extension of the medical school. One AHEC Center interview participant noted that setting the AHEC Center up as a separate legal corporation was challenging at first because the Center had built an organization from scratch. Under a “host model,” she noted, the Center could have tapped into an existing structure. However, in her view, the flexibility and autonomy of having separate legal status has more than offset the administrative hassles of running a separate corporation.

Our site visit observations suggest that establishing AHEC Centers as separate legal corporations with 501-c-3 tax-exempt status create several important benefits. In particular, it enhances the credibility of the AHEC Center
in the local community, increases the likelihood of the AHEC to secure external (i.e., grant) funding, and strengthens the linkages of the AHEC to the local community. As we noted in an earlier chapter, AHECs often face challenges in overcoming the distrust that community-based providers, provider organizations, and disenfranchised groups feel toward academic medical centers. Establishing the AHEC Center as a separate legal corporation offers one means for countering suspicion and skepticism about the AHEC Center’s autonomy. In terms of funding, a State C interview participant observed that, “The Centers are organized as 501-c-3 entities; this is viewed as essential to survival for the Centers because it allows them to be eligible for grant funding beyond AHEC monies.” Finally, as we will suggest in the section that follows, the AHEC Center advisory board – which actually functions as a legally constituted governing board with fiduciary responsibility – offers a potentially powerful two-way conduit of information about local needs and opportunities.

There seem to be few advantages to operating as an embedded unit of a hospital, college, or other organization other than the ability to share the administrative burden of maintaining separate records. This administrative burden is not a trivial one. However, AHEC Centers that operate as embedded units of other organizations face the offsetting risk of being unduly influenced by the priorities of the host organization or, worse yet, facing real or perceived conflicts of interest. On the balance, therefore, the advantages to the Center of
operating as a freestanding entity seem to outweigh the advantages of operating as an embedded unit of another organization.

Notwithstanding these benefits, the separate legal incorporation of AHEC Centers contributes significantly to the challenges that AHECs face in achieving a coordinated statewide response to health professions workforce shortages. It also contributes to the difficulties that AHECs face in “rolling out” special workforce initiatives and health improvement projects on a statewide basis. We discuss these issues later in this chapter.

1. Advisory Boards

Federal requirements specify that AHEC Centers must have an advisory board and that at least 75 percent of the members of which shall be individuals, including both health service providers and consumers, from the area served by the Center.

AHEC Programs and AHEC Centers visited in the course of this study had established advisory boards that met federal requirements. Further, AHEC Centers had codified the federal requirements of board composition in their bylaws and articles of incorporation. In general, statewide advisory boards are comprised of representatives of various agencies including but not limited to: the Office of Rural Health (ORH); the Division of Medical Assistance (Medicaid); the Department of Public Health (DPH); the Hospital Association (HA); the Primary Care Association (PCA); Program and Center staff; and affiliated
academic institutions. AHEC Center boards are generally more saturated with local providers and community partners.

Some AHEC Programs and Centers take more seriously than did others the notion of representation on these boards. For example, in one state, legislation was passed requiring that each AHEC have a board of directors and that the boards are made up of people who represent the ethnic and cultural diversity of the area the AHEC serves. One AHEC Center expanded upon this requirement and mandated that the board have at least one representative from each county in the AHEC service area. Another AHEC Center required that at least 25 percent of the board consist of Hispanic members in order to reflect the diversity of the service area. In a different state, an AHEC Center emphasized in its board composition the importance of balancing representatives from rural and urban areas in the region.

The external AHEC Evaluative Study Advisory Committee’s list of characteristics of successful AHECs includes the following criterion: "has an influential advisory board that is responsive to local concerns and has power in the collaboration." Prescriptively, we concur with this assessment. Advisory board members who broadly represent the multiple segments of the health professions community and the community at large can serve as valuable conduit of information about community needs and opportunities. Likewise, a well-comprised and effective advisory board can enhance the legitimacy of the AHEC Center and build political and financial support for the Center within the
local community. As a panel of experts, advisory board members can also help Center Directors set priorities based on community need; guide decision-making in the face of multiple, competing opportunities; maintain long-term focus on AHEC mission and goals; and ensure accountability to local constituencies.

Site visits do not support the notion that an influential advisory board is a necessary feature of successful AHEC Programs or Centers. We observed successful AHEC Programs and Centers that had influential advisory boards. We also observed successful AHEC Programs and Centers that did not. In the latter case, we found the Program and Center Directors themselves to be the ones who demonstrated vision, energy, and focus, and who possessed strong reputations, interpersonal skills, and political and social connections.

We also observed that many AHEC Center advisory boards, although balanced in terms of meeting the federal requirements, drew the majority of their membership from the immediate vicinity of the AHEC Center. Areas more distant from the location of the AHEC Center had little to no representation in the advisory board membership. Logistics partly explain this phenomenon. AHEC Centers often cover large geographic areas. As such, driving distances represent a significant barrier to broad geographic representation on advisory boards. Telecommunications help mitigate the problem, but do not eliminate it. The under-representation of more remote regions of an AHEC Center’s service area may negatively impact the availability of information about that distant
region’s needs and opportunities. As a result, less attention may be given and fewer AHEC activities may reach those distant regions.

E. Inter-organizational Structure

As noted earlier in this report, AHEC Programs show relatively limited statewide responsiveness to statewide workforce needs. The difficulties facing AHEC Programs in creating a coordinated, statewide response to workforce issues stem from the broad mission scope and multiple goals of AHECs, the funding life cycles of AHECs, and the ambiguous roles and responsibilities of AHEC Programs vis-à-vis other state agencies engaged in workforce planning and development. In addition, two structural features of AHEC Programs add to the difficulties of mounting a coordinated, statewide response to workforce issues.

First, the geographic matching of service areas to AHEC Center responsibilities is not only always carefully or realistically planned. As a result, many AHEC Centers find it difficult to effectively cover the vast territory assigned to them. In some cases, AHEC Programs have too few AHEC Centers to effectively tackle statewide workforce issues. The State B AHEC offers a poignant example of a program that seems “under-Centered” given the geographic size and population size of the state. The Regional Community AHEC, for instance, covers a service area of 38,000 square miles. As the most recent application notes, “This is equivalent in size to six eastern states including
Connecticut, Delaware, Massachusetts, New Hampshire, New Jersey, Rhode Island, with 4,323 square miles left over.” One interview participant observed:

And the territory…. The initial range runs from (City name) to the (State) border. This is bigger than whole states put together. You’re not going to have a lot of great planning going one with next to nothing in resources.

Another Center Director noted that only recently did her Center begin offering programs in the remote rural counties in her service area, and only then with assistance from AmeriCorps (presumably the program was a kids-into-healthcare activity). Other site-visited Centers also showed a heavy concentration of programmatic activity on the counties immediately adjacent to the AHEC Center. On one site visit, a Center Director commented:

Our region is quite large geographically. At that same time, we opened an office in (city name omitted) around 1995. We had no virtually programming in the northwestern part of the state. We began to stretch our arms out to these communities [pointing to map] that really had great needs. The (northeastern part of the state) has a tendency to get a lot more play.

As the above quote implies, not only the number but also the location of AHEC Centers can pose challenges in terms of mounting an effective statewide response to statewide workforce issues. Commenting on the advantages of relocating the Regional Community AHEC from the capital to another city, the Center Director noted:

The operation that was based out of (the capital) was wonderful except that the rural regions are much farther north…. (City A and City B) are the two larger population and teaching centers and what have you. (The capital) is two-and-a-half hours away by car. So, there was a disconnect there, I think. Compound that with the fact that you didn’t have a full-time person and I think it made it difficult. People tried but it was a little hard-pressed.
Second, over time, AHEC Programs become highly decentralized. Although decentralization enhances local responsiveness, it correspondingly diminishes the capability of the AHEC Program to rapidly mobilize AHEC Centers around emerging workforce issues and respond in a coordinated way on a statewide basis. Several factors come into play, as the following quote suggests:

If you look at the decentralized and centralized structure with the head office being here and each region being as separately 501-c-3 organizations, one of the biggest struggles is making that network work – to work in close cooperation with each other. They’ve done a good job in finding good people out there. Because of the diversity of the problems in each region, it’s been a struggle to coordinate and get the level of implementation across the regions because each region has the ability to set their own priorities. I think funding for those areas has been a problem with (the) decrease in federal funding and the problem of finding funding to replace those federal dollars. Some have responded better than others; (it’s) hard to tell private boards what they should be doing. It just makes life more complicated to have to work with boards like that, but they get the local community input and support that they need.

Site visits raised an interesting question that bears directly on this phenomenon: namely, what is the role of the AHEC Program Office as an AHEC Program matures? One answer to this question is that AHEC Program Offices could play a valuable role in identifying statewide workforce issues and promoting a coordinated statewide response among AHEC Centers. As AHEC Programs mature, however, the power of the AHEC Program Office tends to decline.

Stripped of its negative connotations, power is simply the ability to influence various outcomes. In the emergent and growth phases of AHEC
development, Program Offices have substantial influence over the actions of AHEC Centers because:

Program Office staff have information and expertise that enable them to cope with critical contingencies. For example, Program Office staff typically have greater familiarity of federal program requirements, greater experience in setting up new Centers, and greater knowledge about academic health science center needs – an important consideration given the initially heavy programmatic emphasis on meeting the federal “10 percent” rule.

1. Program Offices control the flow of basic federal AHEC funding, the single most important source of funds for AHEC Centers (and often the sole source of funds).

2. Program Offices typically serve as “gatekeepers” or guardians of access to health professions schools, serving as the primary conduit of information between the academic health science centers and AHEC Centers.

3. Program Offices play an important role in managing the mutual interdependence that exists among AHEC Centers early on as they attempt to coordinate their student placement activities.

Over time, however AHEC Centers become less dependent on the Program Offices and less interdependent on one another. As a result, the power of the Program Office declines and necessity for collaboration and coordination across Centers become less evident. Several factors contribute to this trend:
(1) AHEC Centers gradually solve their initial start-up problems and become more adept at community-based education. Task uncertainty diminishes as community-based education activities become routine. The power that the Program Office derived early on from managing task uncertainty correspondingly diminishes. Standard operating procedures and occasional email and telephone exchanges replace liaising and face-to-face meetings.

(2) AHEC Centers develop alternative (substitute) sources of funding. In several site-visited AHEC Centers, state and federal AHEC funding constituted less than 25 percent of the Centers’ total budget. As AHEC Centers become less dependent on the AHEC Program for resources, the Program Office loses a potentially valuable source of leverage.

(3) AHEC Centers develop direct relationships with health professions schools, lessening the importance of the “gatekeeper” role of Program Offices. Over time, Center staff members learn whom they should call if they need a faculty member from the school of nursing to develop or deliver a CE course.

(4) AHEC Centers become less mutually interdependent as they become more attuned to local workforce needs and opportunities. Centers show increasing differentiation in programmatic activity. Even when common workforce needs exist, collaboration and coordination typically remains low. One AHEC Center might respond to a statewide nursing shortage by helping a local community college develop nursing courses in distance-learning format. Another AHEC Center in the same state might respond by working with local
high schools to increase recruitment of under-represented minorities into nursing programs.

(5) AHEC Centers organized as separate legal corporations become increasingly responsive and accountable to their community-based boards of directors.

In response to these factors and trends, power devolves from the Program Office to the Centers and the integrative structure of the AHEC Program declines as the level of interdependence diminishes. These structural features, when coupled with broad mission scope and multiple goals, create fertile ground for conflict to emerge over priorities and prerogatives. In some cases, the Program Office had virtually no influence on AHEC Center activities. In other cases, the classic tensions between Programs and Centers, and between academic partners and community partners, could be heard. For example, one medical school dean had the following to say when asked about the responsiveness of the AHEC to special requests from the medical school:

I think they’ve done the things we’ve asked them to do. You know, it’s a somewhat difficult structure. You have four corporations that have their own boards. There is some give and take in those relationships. At times there’s conflict over the allocation of resources, communication and who gets to decide. I mean, we’re talking about the AHECs here like they’re a single organization and they’re not…. There’s some tension over priorities. It’s difficult to speak for AHECs, they like to speak for themselves.

When asked about the challenge of balancing state and local priorities, he added, “I’m not even sure it’s a matter of priorities. I think it’s more prerogatives. Not what should we do, but who gets to decide.”
In the context of decentralized organizational structure, the question of who gets to decide carries profound implications in terms of the ability of the AHEC to respond in a coordinated way to emergent statewide needs (e.g., nursing shortages or bioterrorism) or “roll out” special initiatives on a statewide basis. For example, in one site-visited state, the Program Office has taken a strong lead in defining and leading programmatic efforts statewide. In addition to administering basic federal AHEC funding, the Program Office has secured state tobacco settlement money to roll out a statewide tobacco cessation initiative. Tension has resulted between the Program Office and the Centers over the setting of AHEC priorities. The state government wants to see a tobacco cessation initiative implemented statewide. The Program Office views the statewide initiative as an excellent opportunity to advance the AHEC mission, acquire needed resources, and garner political support among legislators. Yet, not all Centers are enthusiastic about the initiative. One interview participant, for example, offered the following comment:

It might not be as high a (state) priority if there wasn’t so much money being thrown around. Tobacco cessation is not a demand of providers. They are more concerned about mental health in their patient populations and other problems...Tobacco money has been invested in tobacco coalitions and is used for education of health providers. Hospitals have been given money to do coordination of tobacco cessation. The AHEC Program Office has money for cessation efforts. We do not want to duplicate or stumble around existing programs.

As this example suggests, Program Offices could re-establish a more balanced distribution of power by securing grant funding for rolling out statewide initiatives. The ability of the Program Office to influence AHEC
Center activity would grow as a function of greater resource dependence of the Centers on the Program Office’s funding, greater task interdependence among the Centers in implementing a coordinated statewide program, and greater centrality of the Program Office in managing communication and coordination of the network. However, as the above example also suggests, the challenges of responding rapidly to emerging statewide workforce issues and “rolling out” special initiatives on a statewide basis do not simply disappear when Program Offices gain power.

In sum, the highly decentralized structure of mature AHECs enhances the responsiveness of the network to local workforce needs and opportunities. However, it also creates opportunities for sub-optimal outcomes to result for the network as a whole. An axiom of organization theory and research is that there is no one best way to organize. This suggests that no single model for managing the centralization-decentralization tension will emerge as optimal under all circumstances. Successful AHEC Programs seek a dynamic balance of centralization and decentralization and focus on creatively and productively managing the tension that results from opposing structural forces.
Chapter 6: Administration

As already seen throughout the course of this report, successful AHECs have many different attributes and characteristics. Those relating to the administration of the AHEC Program as were listed in the initial proposal of this evaluative study include: (1) Programs have measurable products and indicators of outputs; (2) Leadership is an explicit emphasis and there are components to teach leadership; (3) Programs produce or have access to data that document primary care workforce distribution and access to primary care in target areas; and (4) Programs make optimal use of technology and lead in technology implementation. This chapter will look at how the major foci of AHEC administration fall under each characteristic of success.

Program administration includes the leadership of AHEC Programs, program reporting requirements, communication systems and information technology, skill sets of Program staff including budgetary management, grant writing, and other responsibilities, and coordination of programmatic activities between Programs and Centers. Center administration is the second focus; it covers Center leadership and staff skill sets similar to those of Program staff. The 1988-1989 external evaluation by AIR (Fowkes, Campeau, and Wilson 1991) noted that the individuals overseeing these Programs and Centers are “leaders in their communities.” A review of the Wisconsin AHEC system observed that successful AHEC Programs emphasize existing leadership (Gessert et al. 1991).
The OIG’s report, *Area Health Education Centers: A Role in Enhancing the Rural Practice Environment* (1995), highlighted the use of and additional need for enhanced telecommunication systems. This report noted “AHECs are beginning to use telecommunications to provide support to isolated practitioners, but they are not yet taking advantage of the full potential of this technology.” At the time of that evaluation, the use of telemedicine was just beginning.

The third component of administration is federal administration, specifically how it pertains to data reporting and tracking of AHEC Programs. The AHECs report to the BHPPr of HRSA, using the outcomes measurement system, the Comprehensive Performance Management System (CPMS), which allows AHECs and HETCs to report on access, workforce distribution, workforce diversity, and quality of care and standards in the workforce. Each AHEC and HETC grantee, both new and renewing, provides data annually via the Uniform Progress Report (UPR) forms; these data are intended to be standard across all HRSA programs so that comparative analyses are possible. These data collection and submission methods are intended to respond to the Bureau’s following national workforce objectives: (1) *To improve access to quality health care through appropriate preparation, composition, and distribution of the health care workforce*; and (2) *To improve access to a diverse and culturally competent health professions workforce*. Previously mentioned in this report’s Introduction, both AHECs and HETCs are subject to follow the provisions of the Government Performance and Results Act
Evaluation and tracking of the AHEC Programs as well as workforce supply and distribution is the final component of this section. The AIR evaluation (Fowkes, Campeau, and Wilson 1991) indirectly pointed out the importance of sufficient data collection by AHECs and how it can benefit program improvement and be a “catalytic effect” for external environmental change: “By using AHEC data to point out what is possible, motivated others to make similar efforts to achieve profound changes.” Gessert and others (Gessert and Smith 1981; Gessert et al. 1991) concluded that successful AHECs build upon, empower, and enhance existing efforts in areas of needs assessment and data collection and analysis. Furthermore, the AIR evaluation observed that AHEC project directors “considered their AHEC to be the best source of current health manpower data in the state, enabling them to convince educational institutions and communities of the need for new clinical experiences for residents, medical students, and students preparing for careers in other health professions.” Interestingly, current thoughts regarding this earlier statement may be changing as other state agencies take on this tracking and reporting responsibility. Better data collection at both the Center and Program levels will not only improve their own monitoring and assessment but will provide a

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7 From the AHEC Basic/Core Application Package. AHEC Branch, HRSA, 2001.
template across all AHECs. Currently, it is clearly not a priority, but like the federal reporting required of the AHEC Programs, it has great potential.

In order to address the issues previously highlighted, this chapter will look at the types of leaders guiding AHEC Programs and Centers today; how the Programs and Centers measure up in terms of skill sets, analytical abilities, and communication mechanisms; the requirements of federal reporting and how the AHECs view these requisites; and finally, how individual AHEC Programs and Centers are handling tracking and evaluation of their own programs.

A. Strong Leaders

The success of AHEC Programs is commonly attributed to having strong leaders who have a clear sense of what the mission and vision are for their AHEC. Typically, these Program and Center leaders have had prior experience with another AHEC before overseeing their own program. They are strong leaders, often visionaries, who focus on dealing with larger system-wide issues.

A dean of a medical school referred to his AHEC’s Program Director as “the big picture thinker who understands the politics and can actually swim in the political pool.” For the sustenance of their AHECs, these individuals clearly must be well-connected in their states’ political realms in order to ensure legislative attention for the AHEC Program. When commenting on the success of the AHEC, a Center staff person pointed out,

If you are going to evaluate the whole program, I have two words for you: [name of the Center Director omitted]. He is the most organized, go-getter, energetic,
effervescent person. That’s the reason for success. If you don’t have leadership, you don’t have anything.
In addition to strong individual characteristics, the leadership of the AHECs overall appear to transition as the AHECs age and mature. While a visionary leader is needed in the beginning to oversee the development of programmatic activities and initiatives of a new AHEC, the qualities of an older AHEC Director seem to morph into someone who acts as a strong administrator and financial manager. He/she is very business savvy and focuses on managing his/her staff instead of starting at the grassroots level like the earlier leaders needed to. An example of this transition can be seen in the State C AHEC Program: The founding leader, Dr. (name omitted), was described as a “visionary and political fighter” by his staff; he was followed by an academician/pediatrician who is responsible for overseeing his 22-person staff and is well-connected with university officials and state issues. His role is to be less of a visionary and more of an administrator; his personal research abroad hints at the changes required of newer Program leaders. Another founding leader in State G is given credit for the success of getting the AHEC started; her commitment, energy, political connections, and understanding of rural needs aided her success of pooling together her natural partners, constituents, and resources to start a new AHEC Program. While her leadership has been exceptional with regard to programmatic activity, her new Associate Director provides the guidance and direction of a competent administrator.
B. Good Communication and Skills

In addition to strong leadership, successful AHEC Programs have systems of communication in place for the AHEC Program Offices to contact their Centers. This interaction appears to occur regularly via telephone or email, as often as weekly or bi-monthly. One AHEC Program connected its Centers to an email account through the university system. Several Centers reported that their Program Offices are very accessible and reliable: “We heard no complaints about the quantity, quality, or ease of communication between the Program Office and the Centers.” The Centers feel that although the Program Office is there to provide them with support and direction, they do not feel suffocated or dictated by the Program Office. Rather, they are able to maintain their autonomy and independence; “on the whole, it seems the Program Office espouses a ‘hands-off’ management approach” or a “call me if you have a problem” approach. The AIR evaluation similarly noted, “The administrative bureaucracy of the AHEC project is minimal.” For younger AHEC Programs, more frequent communication appears to be common whereas older, more mature programs act more independently.

Other communication mechanisms, include videoconferencing technology, are being utilized by the AHECs for the purposes of distance education for rural providers and residency grand rounds. The capability and quality of this type of equipment, as well as those individuals who are utilizing it, varies across those Centers/Programs that have it. One Center recently
purchased a teleconferencing unit and a computer; this equipment is housed in the local rural health clinic where the physicians, who are also preceptors, have regular access to it for teaching, email, and additional Internet usage. Although it is an amenity that the clinic never had, the lines are slow because of their location in a rural environment and the system is sometimes unreliable. Another AHEC is involved in coordinating telehealth resources among its 20 Critical Access Hospitals (CAHs) – very small, rural community hospitals – with the assistance of a hired telehealth specialist. An issue surrounding the enhanced capabilities now available to several AHECs and their partners is the staff’s technological ability to use it effectively. One Center Director indicated that the newly installed hardware was already “gathering dust” because individuals simply are not using it. Another Program Office staff person felt that it is a challenge “to work with some people who are so technologically oriented that they assume everyone is at the same level.”

While some AHECs have benefited from more convenient systems of communication and information transfer, others are still relying on traditional methods for contact and messaging. Although there are those AHECs that have more advanced technology than others, it is not necessarily a heavy investment for all, but rather, a complement to traditional methods of communication and education. Furthermore, these findings support what the OIG report (1995) found several years ago; there were opportunities observed where more
resources and attention could be paid to improving telecommunication systems among the AHECs and their partners.

In addition to telecommunication capacity, AHECs need strong skill sets among their staff to function and thrive. These skills include, but are not limited to, grant writing, financial and budgeting skills, managing students and preceptors, collecting and interpreting data, and disseminating information. The level of expertise differs across and between Programs and Centers. For example, all four Centers in State E devote a considerable amount of time to grant writing; one Center specifically evaluates new hires for their potential to write grants.

Additionally, while the Program Office may exhibit strong skills in many competencies, the Centers, on the other hand, may be more apt to utilize their partners for abilities that their own staff might be lacking. The data management team of the State I AHEC is concerned that the Centers themselves do not have adequate skills to supply or manage their workforce and programmatic data, however none of the Centers are seeking external assistance from their partners at this time. On the other hand, the State C AHEC has trained Center staff on how to input data into the program database. The Program staff is cognizant that missing or inadequate skills can be a deterrent to good data collection. The State C Regional AHEC uses a local college partner for technical assistance and distance learning capabilities.
Without some of these core competencies, it is evident that an AHEC can merely maintain its current level of existence rather than expand its endeavors and meet new challenges. Newer AHECs must place more emphasis on skill building and technology development to better prepare themselves for the future, particularly for those AHECs whose core federal funding is nearing the end. In State I, several staff voiced their concern for Center staff who do not have grant writing capabilities, the doorway to securing future funding, and feared that they will not be able to maintain self-sufficiency. On the other hand, the State G AHEC Centers indicated that they depended on the Program Office’s ability to find and attain funding putting minimal effort of their own into attracting new revenue streams. One of the Center Directors pointed out, “I know that we need to become self-sufficient and think about our sustainability,” but the funding that he had received came with very little effort from his Center staff. Another AHEC Center appears to be disinterested in grant writing even though the capabilities appear to exist among staff persons; the potential problems that can arise from this lack of concern and enthusiasm will be resonated in future programs and activities.

C. Federal Reporting: Standardization.

The potential usefulness and applicability of the Comprehensive Performance Management System and Uniform Performance Review (CPMS/UPR), a relatively new system implemented for measuring outcomes of the AHEC Program, is high in terms bringing accountability to and monitoring
of the AHEC system. It is considered a “work in progress.” The purpose of these data requirements is to guide AHECs and HRSA in the AHEC’s progress towards achieving the BHPrs’ strategic goals of improving workforce quality, supply, and distribution of health professionals. Not only can this data be useful at the federal level for current and future projects, but it has the potential to provide the Programs and Centers with their own ready-made, self-assessment tool to guide and compare themselves among and across other AHECs.

Overall, there is little consensus that the CPMS/UPR data provides the information and feedback that AHECs hope it will offer; there are few instances where the AHECs are actually using these data themselves. Instead, there is an overwhelming majority opinion that collecting and reporting the data is “monumental, inconsistent, and irrelevant.” One Center Director bluntly asked, “Is this just something to keep us busy and for them to justify our existence?” The reporting burden, including the time required to collect and organize the quantitative data, the staff manpower and skills needed to do so, and the changing reporting requirements, has proven to be greater than what was initially anticipated by the AHECs themselves. Furthermore, another Center Director pointed out that for how much is required of each Center and Program Office, “we don’t get much money for this” requirement.

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8 The data elements included in the CPMS/UPR reporting forms cover a variety of quantitative measures. These are the number and type of graduates (e.g. General Medicine, Nursing), program completers (e.g. under 40 hours), practice sites (e.g. Community Health Center, Health Department), number of distance education and CE courses, and number of providers receiving education.
The AHECs feel that they need more standardization and stabilization of these reporting requirements. This, in turn, will give incentives to the AHECs to make tracking their programs, students, and preceptors more of a priority. It will create a much-needed infrastructure across national, state, and local levels that is currently missing. The State C AHEC, for example, cited its struggles with changes in data requirements from the BHPr. The staff involved with program evaluation at this AHEC would like to see a model or uniform reporting structure handed down by the Bureau to ensure accuracy and standardized data collection. One Program Office staff member voiced,

HRSA has stressed evaluation, not from the very beginning, and they have stressed this data collection, but they have never given AHEC the tools to do it. There should have been some national model for the AHEC's to track. They should have provided all of the databases and tools and software to go through it. People have different skills. There has not been a cohesive way to collect information.

The State C AHEC intends on developing its own model of data reporting and collection that will continue to follow federal reporting requirements but will become an easy-to-use national model.

If it is felt that standardization of the federal reporting requirements is needed then questions arise regarding the comparability, consistency, and utility of the current data. Since AHECs around the country interpret and implement their missions slightly different from each other, the data that they are reporting to HRSA are not necessarily uniform for all AHEC Programs. Furthermore, AHECs spoke in unison when they vocalized their concern for the data’s
ineptitude of relaying the qualitative impact that the programs are having on their service areas and communities. For example, although a Center realizes the need for accountability and measurement, the Center is concerned that the data measurement system does not fully report their activity:

It reflects a partial picture, but you need to have a qualitative component. The numbers don’t speak about the real experiences or the qualitative things that happen – like CE programs that the Centers run. They gather information to assess the program they’re doing … but they can (also) provide information that doesn’t show up in the numbers.

For example, although the CPMS data counts that the State F AHEC had 33 physician assistant (PA) students in 2000, it does not report how many of those students changed their practice location intentions or how many students chose to care for an under-served population because of their AHEC rotation experience.

Finally, there is no common or apparent denominator that is used to measure effectiveness. Suggested denominators have included total under-served populations, total federal dollars, and total population. Additionally, although the data “counts the bodies,” it does not describe the vast number of partnerships that the AHECs have in place nor the networking capabilities of the AHEC’s staff and leaders. The data do not measure the AHEC’s role as a neutral convener of partners and other HRSA programs; the ‘behind-the-scenes’ role that the AHECs play is by no means evident in the numbers. For example, an Associate Program Director pointed out, “capturing those very qualitative things like getting hospital administrators in the same room – it’s got benefit far beyond
the meeting of that moment in that room.” Likewise, an Education Coordinator noted, “Those kinds of things are not reported, but I think are highly valuable because in many cases, we serve as a catalyst to get something done even though our name might not be on it.” Furthermore, these data do not measure the resources available at the AHECs or the utilization of these resources (e.g. library systems).

D. Evaluation & Tracking: Progress and Performance

Tracking the work of the AHEC Programs is a critical component of their own evaluations as a tool to advise with strategic planning, mission and vision development, and specific programmatic activities. Without an appropriate level of tracking, self-evaluations cannot occur in an AHEC since there is no way of knowing what effect, if any, the AHEC has made on its local community, service providers, students and preceptors, the larger health care system, and others. Several AHECs can say that they are making a difference, but without the quantitative and analytical data, there is no true way to know how much of an impact the AHEC has really made.

Overall, the AHEC Programs do not have strong program tracking and monitoring systems in place, however the few AHECs that do have an evaluation system in place are more effective in their own assessment and reporting. The State C AHEC Program Office has created an Access database called, AHEC Tracking System, for cross-Center reporting. It will also cover the federal reporting requirements and include measurements of career education
programs, CE/CME, community health, and clinical rotations. Reports then can be printed from this information. Not only is the information on the programs included, but the survey responses for each focus area are entered into the system as well. For example, the State C AHEC surveys its students prior to their clinical rotations in which the students are asked questions like: “How probable is future practice in State C? In a rural area? In an under-served area?” and “What are the factors influencing the selection of an employment location (location of schooling, community amenities, potential income)?” Once the student has completed his/her rotation, a follow-up survey is completed and then entered into the tracking system. Additionally, information on the students, preceptors, and sites participating in the program are updated. The database has been distributed to its five Centers for them to add their data electronically on a quarterly basis; the Program Office is willing to train Center staff on how to enter the data if such technical assistance is needed. The Program Office hopes to make the electronic reporting Web-based so that data reports can be downloaded at any time. Additionally, the State C AHEC recently hired a doctoral-level program evaluator whose primary responsibilities will be to facilitate this data collection and to determine how the State C AHEC will evaluate its impacts, efforts, and outcomes. He felt that they not only need to focus on the requirements, but “we need to take it to another level. We need to measure the attitudes, changing perceptions, and environmental changes” as well.
In general, the State B AHEC Program’s tracking and monitoring appears to be weak. The Program Office staff member who is responsible for evaluation and tracking the AHEC Program noted that coordination and communication across the Centers “is probably a weakness, I’m not sure how we do it. Not just location but generationally, the Centers are different. We can’t get uniform information back from the Centers.” On the other hand, despite the lack of coordination across the AHECs in the state, the Centers themselves appear to have reasonably good tracking systems and data for particular activities. For example, two of the State B AHEC Centers are able to determine where their residents go post-training while another Center is able to show the current practice location, ethnicity, gender and so forth for their “Partnerships for Training” graduates. As for overall program evaluation, the tracking is clearly uneven and un-funded. One Center staff member noted:

Something that I would say really needs to be done is for tracking to be more strategically performed. I came on board with the (AHEC Center) in early October. There did not seem to be a particularly effective way of tracking students into the pipeline. I would say that’s something that needs to be addressed. That’s often something that falls by the wayside when the money goes away, unless there’s money specifically for evaluation. It’s a very difficult piece when you consider meeting the needs of the students versus going to this other side of taking away time from the students from being able to put physical time into for me to do an evaluation.

Although the State G AHEC Program is not strong in tracking and monitoring their programmatic activities, the Associate Director sees future reporting mechanisms as a critical step towards program assessment. She has recently revised contractual obligations that they have with the Centers and
community partners to more clearly indicate expectations that accompany financial support. At this time, the Centers monitor their contractual compliance by reviewing monthly budget statements and invoices. Furthermore, the Program Office is currently using their data to identify areas of need for program interventions rather than measuring the effect that the AHEC has on addressing those needs. When a Center Director was asked how her Center measured the AHEC’s impact on health outcomes, she was quick to point out that improving health outcomes was an indirect goal of the AHEC and their primary focus was to affect the delivery of health care services.

Like the State G AHEC, most of the other AHEC Programs appear to track their programs in a very piecemeal and often times, informal fashion if they do so at all. Complaints about low resources, available staff time, and skill capacities were commonly heard. The State H HETC Program reported that because of its lean staff and low staff resources, devoting time to monitoring the program was not a priority, rather it was a high deficiency.

The State E AHEC Program similarly pointed out that tracking is difficult and time-consuming. However, one of the Centers appeared to be an anomaly to the overall state program. It has extensively tracked both the medical students who have rotated through the region as well as the children who have participated in their Kids into Healthcare Programs. For example, the following comment, although lengthy, by the Center Director is an example description of
what type of information her Center tracks, why tracking is so important and relevant, and why other Centers should participate in their own evaluations:

A year ago, we celebrated ten years. We sat down and took a look at our preceptor program. We said we have worked with 419 students. To us, it’s outcomes. It’s always important to evaluate what you’re doing, but there are times when you really need to do it and share it externally. We’ve tracked them by when they graduated, where they matched, what they matched, primary care, family practice. Of those kids, we have 213 are practicing medicine and have finished their residency or are training. We’ve tracked them down to their practice sites. We have 138 sites for these students. Of these, 213 students that came are practicing in State E. I think that’s extraordinary. I am really proud of this, for all of our preceptors and our students and our board. One hundred and thirty eight came back to State E out of 213. I think it was 95 or 96 of those did their residency in State E. So, we had about 35 or so that went out of state and actually came back. That’s an exciting thing.

We are also tracking our younger students. This is a priority for us. This is the first program that we had (i.e., tracking medical students). Now that we have learned the hard way, we aren’t going to do it that way again. We are tracking our high school students. Our high school programs have had 1100 kids are part of our part-time programs. Out of 434 out of high school, we got an 81 percent response rate. We’re not going to stop at that. We get a couple of kids that took part in our first MASH (Medical Applications of Science and Health) program in 1994 that are actually…. One is in her second year in her dermatology residency at (Medical School). It’s going to take us a while to see results from these programs. But, we’re going to track them.

We have a board that’s very supportive and staff that understands the importance of evaluation. Some of it also comes from my own preferences. Coming from an association background, I understand the importance of tracking sales, membership, and so forth. This is a challenge because it’s a little different. This was an important way of reassuring ourselves because we don’t have a lot of benchmarks. The other thing is that you have to stop and look at it and show your results. These preceptors has sweated blood and sweated tears for these kids. So, this is a way of showing the preceptors that they are making a difference.

The State F AHEC Program’s data collection, both evaluating outcomes and completing needs assessments, is virtually non-existent. What appears to be evaluative is actually anecdotal. Again, the Program Director reiterated what several others also said: “It is difficult to develop a data system with so many
different schools while it is difficult to track meaningful information about outcomes.” Instead, he looks to the universities to track the health professional students since the AHEC does not have the resources for this type of work. But, “we don’t have a system that tells us whether 15 years later they became health professionals.”

In addition to the creation of a tracking or evaluation system, it was discussed by many AHECs, especially those without reporting mechanisms, that just like the CPMS/UPR data reporting requirements need to be standardized so, too, do the state-level AHEC Program reporting requirements. Having equal reporting methods within the state is critical to being an effective statewide program. Without this stability, there is no true method of equating processes to outcomes in an entire AHEC system. An Associate Director of a model AHEC stated:

Although we find our strength in being a statewide system and we know that funding-wise and working with the legislature, we have got to present ourselves as a statewide system. But, pulling evaluation data together to come up with some common data has just almost been impossible.

Specifically, another respondent cited a common issue that acts as a deterrent to effective and uniform data collection:

Our difficulty lies in the sense that the central office did not determine that we would all submit in the same fashion. So, we can submit electronically or by hand; therefore, retrieval of the data can be difficult depending on how one submitted it.

The State I AHEC’s data managers deal with these uneven barriers to collecting good data because of the inconsistent, but program-permissible, reporting
methods. Even though the Centers send in their monthly statements to a central location, the differences in reporting, electronic or handwritten, are barriers to collecting clean data quickly. A board member commenting on this issue of uneven data reporting said:

This is not a problem that just popped up last week and, oh yeah, we can fix it next week. We’ve got here over years of neglect and it is going to take years of addressing to get to the solution.

Finally, collecting valuable health workforce data is another issue that stems from the need for effective data collection at the AHECs. Furthermore, the AHECs varied on their opinions about the need for and quality of workforce data. For example, the State I AHEC uses the state Office of Rural Health (ORH) to map data related to population density issues and medically under-served areas (MUAs). They are able to use these maps to assess state and local health care needs which, in turn, become the basis for some programmatic activities. Likewise, the State G AHEC analyzes the state’s workforce supply.

The State E AHEC appears to have sufficient access to systematic workforce data as a result of the availability of data collected and analyzed by the Medical Education Commission (MEC). This Commission was established by the State Legislature in 1997 to collect and report data on an annual basis on the status and trends in medical education. It includes representatives from the University Health Sciences Center, the University Medical Center, the Group Medical Practice Foundation, and the State Department of Health and Hospitals (DHH). In 2001, MEC published its fifth report documenting the nature and
scope of all training programs for the postdoctoral residents and fellows in State E. In terms of outcomes, the 2001 report of the State E MEC report provides evidence that AHEC-assisted efforts to increase the number of undergraduate medical students interested in primary care have taken hold. The report states that, of the 1185 students graduating from State E medical schools between 1999 and 2001, 690 (or 58 percent) choose a primary care residency (e.g., internal medicine, family medicine, pediatrics, and obstetrics). The Medical School Health Science Center trained nearly two-thirds of undergraduate medical students, suggesting that the University’s focus on primary care is working.

Aside from the MEC data, the State E AHEC typically relies on informal, local assessments of workforce trends and needs. The Center staff members go out and talk to community and academic partners to ascertain what distribution needs specifically exist. They sometimes rely on local hospitals and universities to provide more systematic, quantitative data on workforce distribution.

On the other hand, the State A AHEC struggles to collect data that tracks the supply and distribution of health care professionals. The Dean of the University Medical School emphasized this issue:

I can only give you anecdotal evidence of certain individuals who have gone to under-served areas and who have been retained in under-served areas. We have not had a comprehensive evaluation of what has been achieved and what is the outcome. We feel good but I cannot walk in and say that the decade before AHEC was created, the recruitment from the university is X and now is Y and the cause of change was AHEC.
The State D AHEC indicated that tracking the workforce supply in its state was not a “problem” and that inventories of the health professions workforce are not necessary to their work.

1. Using the CPMS/UPR Data for Benchmarking and Analysis

The study team worked with the CPMS/UPR data to determine how it might be used to characterize the AHEC and HETC Programs. Because the data we were provided was not complete, we made no overall comparisons nor do we use the data in formal analyses of the programs. We did, however, analyze the data with the aim of exploring how to create performance measures and benchmark performance indicators for the programs. The following graphical examples illustrate some of the ways in which the data could be used.

a) Characterizing AHECs

This report and others have described the variety of AHEC structures, processes and products. We sought to use the CPMS/UPR data to show the variety among the AHECs in the content of their work. The figure below indicates the mix of health professionals receiving training in the site-visited AHECs. The differing proportions speak to a range of potential emphasis areas.

**Figure 5.** Educational Completers by Proportion in Discipline, Site-visited AHECs and HETC, 2000.
If those same data were examined graphically depicting the numbers in each discipline, the range of sizes of programs would dominate the interpretation.

**Figure 6.** Educational Completers by Proportion in Discipline, Site-visited AHECs and HETC, 2000.

The same cut could be made by type of setting in which the training or education occurred.
**Figure 7.** Educational Completers by Proportion in Site Type, Site-visited AHECs and HETCs, 2000.

b) **Toward a measure of productivity**

The Government Performance Review Act (GPRA) has stimulated agencies to seek ways to understand the comparative impacts and efficiency of their programs. The output of educational programs is, recognized to be a

**Figure 8:** AHEC-Based Training, 2000
difficult thing to measure. The two charts above (See **Figure 8**) provide an example of how difficult developing a measure of efficiency in AHEC might be. The chart on the left shows (using actual CPMS/UPR data) the relative costs of training a practitioner across all disciplines for three AHECs, the range of $250 to $550 is quite large. The costs per CE credit course could also be calculated and the results are shown in the chart below with costs ranging from $5,000 to over $40,000. That same analysis could be done using CEs or some form of weighted CE or participant scores to create numerators. The denominators are consistently expressed in the budget for the program, but this might actually reflect a wide range of activity, not all of which relates to the specific activity being charted.

The final figure, **Figure 9**, describes the range of activity when denominated by population served. In this case, we used the estimates of the under-served population for the AHEC’s service area.

**Figure 9.** Under-served population per CE Course.
E. Summary of Findings

Administrative qualities of an AHEC differ across programs and states, however based on many examples provided in this chapter, it is evident what qualities make an AHEC effective. As highlighted in the original evaluative study proposal as a characteristic of a successful AHEC, leadership is an explicit emphasis; successful AHEC Programs have strong leaders who are community-focused and experienced in AHEC operations and objectives. These individuals may interpret the AHEC mission slightly differently in their own AHECs, but they are uniformly “big picture thinkers,” often visionary in their goals, and well-connected across the state and its political arena. Center Directors exhibit similar attributes as those of Program Directors; they are dedicated to their Center’s mission and have supportive staff. Such exemplary leadership is critical to an AHEC’s survival, maintenance, and growth.

In addition to effective leaders, AHECs need sufficient skills among their staff to perform major responsibilities critical to the sustenance and growth of the AHEC. Such skills include grant writing in order to secure future funding, data collection for evaluation and tracking, financial and budgetary skills, and technological abilities, like programming, data entry, and database creation and maintenance. Without these abilities, AHECs will probably plateau early in their developmental phases but with a strong and multi-talented staff, an AHEC can mature and optimize its resources and funding mechanisms. Overall, the uniformity of staffing skills varies across AHECs. Those AHECs that are most
effective in daily operations, program management, and preparation for the future are the programs that have experienced and highly qualified staff.

AHECs are utilizing technology for communication, CE, networking, and information dissemination. All of the site-visited AHECs utilized an electronic mail system which enabled Program Offices to quickly contact Centers and their staff. The addition of email in many AHECs increased the accessibility of the Program Office to the Centers, however many Centers agreed their Program Office permitted them plenty of autonomy and independence in their everyday operations and decision-making. Additionally, AHECs are beginning to use higher technology capabilities for telehealth and telemedicine as well as board conferences and resource attainment. In order to be a successful AHEC, the original proposal characterized them as programs that make optimal use of technology and lead in technology implementation. Although this is a favorable outcome, most AHECs have not yet reached this level with their own technology capabilities. Some AHECs are more advanced than others, but such technological advances, like telehealth and distance learning equipment, are methods of enhancing and complementing traditional routes of information dissemination. There is much room for improvement in terms of implementing and using technology, but the AHECs are working towards this ability for increased communication and utility.

The third characteristic of success from the original proposal is programs have measurable products and indicators of outputs. There are many
discrepancies across AHEC Programs in terms of data collection that measures and evaluates both the processes and outcomes, both qualitative and quantitative, of the great efforts that AHEC and its dedicated staff make to improve the local health conditions and health care provider distributions in their service areas.

One method of uniform reporting and measurement is the CPMS/UPR federal requirements of AHECs and HETCs. This is a relatively new system with great potential for cross-case comparisons of AHECs and other HRSA-related programs, but at this time, the AHECs view these reporting requirements to be difficult, time-consuming, and valueless. This data collection system focuses on a narrow component of the AHECs only and misses the opportunities to learn and record the qualitative answers to questions beginning with “How?” or “Why?” rather than “How many?” and “Which ones?”.

Finally, the last characteristic of success highlighted by the original proposal is programs produce or have access to data that document primary care workforce distribution and access to primary care in target areas. Although many AHECs have access to workforce data in their states or local service areas, they do not typically collect this type of information themselves either because they find it unnecessary or they do not have the staff skills and/or resources to dedicate to this activity. Overall, the data measurement and analytic abilities, whether they are for federal reporting requirements, self-evaluation and tracking, or workforce distribution, are lacking. It is important that results and
outcomes be measured and archived so that when the question, “What makes a successful AHEC?” is asked again in the future, one can say that because of the staff and resource dedication that the Federal and state governments and the AHECs themselves gave to monitoring their processes and outcomes, here are the reasons why the AHEC is a success. Without such information and routine collecting and reporting of it, there is no method of tracking and determining that X was caused by Y, with Y being the initiatives and support provided by the AHEC.
Chapter 7: Partnerships

Partnerships play a vital role in the success of AHECs. AHECs depend on partners to provide them with information about health workforce needs, logistical support and resources for programmatic activities, and visibility and legitimacy. Common partners for statewide AHEC Programs include academic health science centers, state agencies such as state departments of health, professional associations such as state nursing associations, and industry groups such as primary care associations (PCAs). Common partners for AHEC Centers include hospitals, physician offices, community health centers, local health departments, dental clinics, mental health centers, chambers of commerce, secondary schools, community colleges, and local universities.

Although the depth and importance of any given partnership varies across AHECs, successful AHECs possess a diverse portfolio of strong partnerships at the Program and Center levels. The range and intensity of programmatic activity at AHECs correlates with the breadth and depth of partnerships forged at the Program- and Center-level. AHECs do not exist independently of the partnerships that they form. As catalysts and vehicles for inter-organizational collaboration (i.e., as “inter-organizations”), their effectiveness, credibility, sustainability, and adaptability depend on the contributions and goodwill of partnering organizations. Thus, the ability to partner with a wide array of agencies and organizations, and the breadth and depth of partnerships forged, are critical success factors for AHECs.
A. The Partnering Advantage

AHECs derive several advantages from partnering with other organizations including pooling resources and expertise, sharing responsibility for an issue, facilitating coordinated action, and minimizing duplication of activities (Kegler et al. 1998). For example, AHECs benefit greatly from partnerships through leveraging resources and sharing expertise. Successful AHECs creatively blend Program or Center resources with financial and in-kind contributions from partners. In discussing the Center’s CE program, for example, one Center staff member noted:

Jane has become a master at leveraging resources. Easter Seals provides the speaker. The medical school prints the program. The hospital or the nursing school provides the space. We’re able to put together a $10,000 program but each of us is out of pocket maybe $500 in staff time. That’s just one example.

Similarly, the State G AHEC has secured commitments for more than $250,000 in matching funds next year from 14 hospitals for the state-funded loan repayment program that it administers. As one hospital partner noted:

It would be silly for all 14 hospitals in State G to pay to recruit and retain professionals independently. Pooling resources and leveraging these through AHEC makes most sense. The hospitals in State G don’t compete with each other and it’s natural for us to act and collaborate as a whole entity over shared issues like this. We’ve really benefited from that.

Pooling resources enables AHECs to accomplish things that it could not do alone, frees resources for other uses, and demonstrates to state legislatures and other potential sources of funding that local communities view AHECs as valuable partners.
Partnering also benefits AHECs through sharing expertise. For example, AHECs often collaborate with faculty members in academic medical centers to produce a wide range of CE programs. Faculty members provide substantive knowledge on palliative care, cultural competency, mental health, diabetes care, and other health topics. AHECs provide expertise in scheduling, advertising, coordinating, and evaluating the CE offering. AHECs also share expertise in the use of advanced telecommunications such as videoconferencing, satellite broadcast, and web-based distance learning technology.

Improved coordination represents another benefit of partnering. For example, the State E AHEC collaborates with primary care residency programs across the state by coordinating recruitment, public relations, and communication activities. Specifically, the State E AHEC brings representatives from all 11 family practice residency programs in the state to Kansas City to recruit future residents attending the Annual National Conference for Family Practice Residents and Medical Students. An AHEC Center coordinates the booth design, promotional materials, and State E residency information. The State E AHEC also assists in producing the University Medical Center Family Practice Recruitment Fair, held in conjunction with the Medical Job Fair of State E. The Recruitment Fair provides an opportunity for family practice residency programs throughout State E and other southern states to recruit medical students into their programs. In 1999, 24 programs participated in the Recruitment Fair.
By taking a coordinated approach, the State E AHEC advances its goal of improving the supply and distribution of primary care physicians in the state.

Finally, AHEC benefits from partnering through minimizing duplication of effort. For instance, the State I AHEC is collaborating with the University of City A School of Public Health to re-engineer, implement, and analyze a statewide relational database for tracking of AHEC-sponsored activities. The re-designed database will include information about dental and public health activity, in addition to information about community-based rotations for primary care health professionals and residents. By creating an integrated database and a standard procedure for submitting data across AHEC Centers, the State I AHEC not only conserves financial and human resources, but also enhances the program’s ability to take a statewide look at its performance.

As these examples suggest, collaboration with statewide and community-based partners advances the mission and goals of AHECs. At the same time, collaboration with and through AHECs provides benefits to individual partnering organizations by enabling them to accomplish together what they could not accomplish on their own. The State G AHEC, for example, plays a critical role in furthering the mission and goals of the State’s Recruitment Center, a statewide non-profit organization created in 1994 through a collaborative effort of health care providers and provider organizations to improve recruitment and retention of health professionals in the state. Specifically, the State G AHEC provides financial assistance to the Locum Tenens Program, relieving pressure on
some of the state’s most isolated providers. The State G AHEC serves as a source of information for providers in rural communities. The State G AHEC assesses workforce needs and assists with matching providers to needy areas. The State G AHEC sponsors and coordinates career events for residents and CE opportunities for placed providers.

Similarly, when asked how the State G AHEC has benefited the University School of Medicine, an academic partner replied:

I can cite the Health Career Opportunities Program (HCOP) as an example. We are looking at ways of increasing the diversity of the health care workforce. We wanted to look at the elementary and middle schools as well as the high schools. They’ve (AHEC) been there. They have already been in the high schools. They had a health advisor there. We know that the further we get away from the medical school, the less we know about the life issues facing these students. We need to get somebody there with whom we can partner. So, out of our Health Careers Opportunity Program, I subcontracted with (AHEC) to buy some time, share some expertise, and plan pipeline kinds of activities. We already had a pipeline from the community colleges and (regional State University). But, when it came to developing a pipeline into the secondary schools, we went to them and said, “Tell us about the things that you are already doing now.” We tell them the kinds of things that we want to do.

Finally, collaboration with and through AHECs benefits communities by strengthening networks of health, education, and human service organizations through greater communication, coordination, and cooperation. At the State G AHEC, Program and Centers staff pointed out that the health care organizations in the region rarely communicated with one another before the State G AHEC arrived. As a result, opportunities for collaboration were often overlooked because no one looked at the big picture.
Finally, AHECs play an indispensable role in strengthening the network of health, education, and human service organizations by helping to build trust between academic medical centers and communities. Reflecting on his Center’s activities, one particularly eloquent Center Director observed:

It made me realize how much work there has to be done to build some trust and bridges between communities and what’s going on in the University and the health department…. So I think for me that the overriding mission (of the AHEC) is, can we restore some historical sense of trust in these communities can we build these relationships? (…) So, if there’s a lasting legacy I hope that one of the overarching things is a just of sense of building trust again and a sense of shared activities and shared objectives…. I don’t know if you can sell that to Congress. Can traditional teaching institutions, academic health centers get back some credibility as really being responsive to community needs and really genuinely partner, rather than someone thinking that they are the ones that have all the money? Can they really respond in a more collaborative way to community organization and see that they are a resource that people look to?

Other interview participants suggested that the answers to these questions are, “Yes, with help from AHECs.” One Center Director observed, for example, that the AHEC has helped (name omitted) Health Care, an integrated delivery system based at University of State G, to offset the perception among rural providers that it is “the big hairy gorilla that is going to come and eat their lunch (take over their practices)”. She added that the State G AHEC has also improved significantly community perceptions of its host medical school outside of its immediate environs. Similarly, an academic partner noted that the State F AHEC played a key role in “opening doors of communication” between his university and the local community, doors that would not have otherwise been opened. A community partner with the State E AHEC expressed similar sentiments.
AHEC is a bridge between the community and the health science centers. They are less mainstream than the academic institutions and are a key link to the health care delivery system.

**B. Partnering as a Central (and Unique) Role of AHECs**

Reflecting the central importance assigned to partnering, interview participants routinely mentioned this activity as a one of the key purposes and distinctive contributions of AHECs. We heard several different terms used to describe this central and unique role. For example, several people noted that AHECs serve as *neutral ground*, a nexus where competing academic medical centers, health care organizations, and state agencies can check their institutional politics at the door and collaborate on project of mutual interest and common benefit. As one academic partner noted, “AHEC is a neutral party, particularly (important) here in (this state) where we have lots of medical schools and lots of very powerful hospitals.” Similarly, one Center Director described the AHEC as “an apolitical and neutral ambassador,” that serves as a *facilitator* for health care organizations in their communities. As one Center Director observed, AHEC has become the partner of choice when competing agencies and organizations need to get something done.

For some reason, there has always tension between the Department of Health and Hospitals (DHH) and the Legislature. So if AHEC is sitting there, we’re kind of the “white-hat” guy. This is the only job I have ever had where walking down the middle road was a good thing. So, we are a win-win for both of them. Everybody has trust and confidence in us. We also bring the skills and talents and also outcomes. It’s easy to do business with an AHEC. We have far-reaching resources.
We observed many instances where academic or community partners brought ideas, initiatives, projects, and activities to AHECs precisely because AHECs provide a politically neutral meeting place and possess a unique set of competencies for coordinating inter-organizational collaboration. For example, when a faculty member won a grant to develop a primary care research network, he asked the State I AHEC to help him develop and coordinate the network. The State I AHEC secured the participation of the association of community health centers and formed a research committee to facilitate coordination among network members:

As we develop research projects, we will take them to the State I AHEC’s research committee for coordination purposes to keep them informed of what we want to do, if we need additional assistance, make sure that no duplication occurs if other schools or places are doing similar research.

Commenting on AHEC’s role, he added:

Beyond that, the AHEC has done an exceptionally good job in bringing diverse elements together. The fact that all of the medical schools involved would sit down and talk about creating a primary care research infrastructure, for example. The fact that they willing to use that central committee and committee infrastructure to coordinate research efforts and encourage students to get involved in those research efforts. Without that, a lot of these schools wouldn’t have talked to each other. The people in City B think the world ends when you get to City C. Through the AHEC, people from those schools work together. It’s provided us with a neutral ground where we can leave the political issues behind and focus on common needs.

By acting in a neutral and non-political way, AHECs become trusted partners that academic medical centers, health care organizations, state agencies, and other CBOs turn to when they need to get something done. As one community partner put it:
What I really appreciate about the organization…is that it is very neutral and very accessible. They approach issues from a high level rather than from a vested interest. I work with a lot of specialist organizations and I find that sooner or later I always end up hearing about their angle, their agency’s particular agenda or take. With (AHEC), they really bonded with what we needed. There didn’t seem to be an overlay of their agenda.

Similarly, a local health director, commenting on the trust that the AHEC has built, observed:

For this region, [AHEC] has served as a real mediating role between the community and the university who would use us and walk away — we’re here to get away from you — it is so clear to me — hospitals can do the technology, but they can’t do the cross linking.

Interview participants used the term bridge builder to describe the role that AHECs play in actively brokering partnerships. Because AHECs see the big picture, take a neutral position, and garner trust from academic and community partners, AHECs often serve as catalysts for workforce development programs and systems change. The City AHEC, for example, pulled together representatives from a network of community health centers in the city to create a Community-Based Education Track in which 15 family practice residents join one of five local community health centers for their third-year continuity training experience. The residents also participate in an innovative practice-based curriculum in which they develop projects that focus on the specific health care needs of the ethnically and culturally diverse inner-city communities adjacent to the community health centers. Community health center staff and family practice residents have enthusiastically embraced the program, which all agree
would not have developed without the leadership of the City AHEC Program Director and his staff.

Finally, one long-time AHEC participant noted that AHEC’s play a vital role as *gap-fillers*, albeit often as invisible partners.

It is important to highlight or capture the institutional changes in this national evaluation. AHEC sponsors very good programs, but people don’t know where the money comes from. It wouldn’t be there without AHEC. The Centers are gap fillers, and some (Centers) are better than others (at that). They meet needs that are not going to be met without AHEC.

AHECs often work behind the scenes in ways not visible to a program’s targeted audience. As noted earlier, health professions students often do not know that the rural, under-served rotation that they completed was an AHEC-sponsored rotation. Likewise, AHEC’s role in jointly producing a CE program often goes unnoticed by health professionals attending the program. Even when the AHECs role is visible, AHECs often play “good citizen” by allowing partnering organizations to claim credit for collaborative activities. AHECs engender goodwill and trust by taking the role of silent partner, but such invisibility can hinder AHEC’s efforts to garner financial and political support.

**C. Capturing the Value of AHEC Partnerships**

By serving as a vehicle for inter-organizational collaboration, AHECs create value in ways not easily quantified and, therefore, not fully captured in the federal CPMS/UPR reporting system. AHECs enhance the social capital of communities by providing state and federal agencies, educational institutions, and health and human service delivery organizations a durable, versatile conduit
for collective activity. AHECs possess well-established network connections and organizational infrastructure and, thus, readily serve as “platforms” for rolling out all sorts of statewide initiatives or community-specific programs.

Sometimes, these initiatives and programs pertain directly to workforce development, and AHECs participate even though they do not receive credit for doing so under federal reporting requirements. For example, the (name omitted) Foundation approached the State G AHEC and asked that it administer a named Scholars Program – a program that administers scholarships to medical students. Similarly, the Southern Rural Access Program asked the State E AHEC to administer the Rural Loan Fund, a program that provides financial assistance to physicians and other health professionals to set up practices in rural counties. In both cases, AHEC serves as a platform for activities that advance the mission of the AHEC even though such activities do not find direct expression in the federal CPMS/UPR reporting system.

Sometimes, state agencies and other organizations ask AHECs to “roll out” statewide initiatives and community-specific programs that relate only tangentially to workforce development. For example, AHECs sometimes serve as fiscal agents for grants and contracts in circumstances when no other CBO could do so either because of political considerations or because no other CBO has organizational capability. One Center that we visited serves as a fiscal agent for an initiative that is funded by the state department of mental health that seeks to reduce youth violence and substance abuse. The state agency sought the
AHEC because it was perceived in the community as a neutral party. Another Center runs the Ryan White Title I program and Title II program for its service area because no other agency in the area possesses the organizational infrastructure necessary to do so. One interview participant noted, “Social services in this region are very limited and what there is here shows a very low sophistication level.” Another interview participant noted that mental health and social services are virtually non-existent in many rural parts of the state. Without AHEC, little health and human service programming would get done in these areas.

The versatility of the “platform” that AHEC provides for rolling out statewide and community-specific initiative represents both a challenge and an opportunity for the AHEC Program. For example, reflecting a broader national trend, the Department of Public Health in one state that we visited has tried for years to shift its focus from direct service provision to core public health functions such as planning, surveillance, assurance, and policy development. Because AHECs have the organizational infrastructure and community linkages, the Department has increasingly looked to AHEC Centers to fill the gap in public health service delivery – everything from education, prevention, promotion, detection, treatment, case management, and referral. One Center Director observed:

The cool thing about working with (the state department of public health).…. It’s been nice even though our culture around public health has changed so much, completely revamping closing units and changing the focus. It’s been a really
cool time for us to be an AHEC because there are things that they are federally mandated to do. So, we don’t have to call them. They call us and say, “Can you help us with this?” So, we’ve been doing contracts along those lines.

As noted earlier (See Chapter 2), “mission creep” represents a formidable challenge for many AHECs. The more success that AHECs demonstrate in serving as versatile “platforms” for statewide initiatives and community-focused programs, the greater the potential for AHECs to become diverted from their mission and focus on health professions workforce development.

On the other hand, many interview participants suggested that, as vehicles for inter-organizational coordination, AHECs represent untapped or under-tapped resources for private foundations as well as state and federal agencies.

D. Capitalizing on AHEC Partnerships: Opportunities for Federal Agencies

Opportunities also exist for federal agencies to capitalize on AHEC partnerships by taking advantage of the organizational infrastructure and network connections that AHECs have built. In our site visits, we observed some instances of collaboration between AHECs and federal agencies. For example, one AHEC Center collaborated with the Federal Emergency Management Agency (FEMA) on the agency’s Storm Watch program. Specifically, the Center helped FEMA by distributing a video-and-book packet about hurricane preparedness to every hospital within 100 miles of the coast in two states. Another AHEC Center collaborated with a five-state Center funded by the National Institute for Occupational Safety and Health (NIOSH) to set up a
telemedicine network for continuing medical education (CME) for rural physicians and other health professionals on topics of interest to that population of providers. The first product of this collaborative effort will be a broadcast on pesticides that will reach rural hospitals in three states. The Center staff member coordinating this effort indicated that:

We try to run projects that combine both Centers because they’ve got a little money and we’ve got a little money…. It’s a win-win because we are using NIOSH and AHEC funds, doing what both of us need to do.

Finally, several AHEC Centers collaborate with AmeriCorps volunteers on health education projects, community outreach efforts, and Health Careers Opportunities Programs (HCOPs). For example, the State F AHEC participates in the (City Name) Health Corps Project, one of the few AmeriCorps-funded initiatives dedicated of health. The State F AHEC facilitates student placements for the Project. The Health Corps currently has 34 members placed in more than 20 sites including schools, hospitals, clinics and professional organizations such as the American Lung Association.

These examples point to the potential value that AHECs offer for federal agencies seeking to roll out initiatives or activities that involve community-based education and training for health professionals. We believe that many more opportunities exist, particularly as federal agencies seek to better prepare communities for emerging issues such as bioterrorism, disaster management, and immigrant health, as well as “silent” epidemics such as diabetes, obesity, and tuberculosis. We recommend that HRSA intensify its efforts to collaborate
with other federal agencies so that AHECs become partners of choice for rapidly deploying health-related education and training programs.

**E. Capitalizing on AHEC Partnerships: Opportunities for HRSA**

Finally, opportunities also exist for greater collaboration with other HRSA-funded programs and activities. AHECs represent “natural partners” for other HRSA-funded programs and initiatives. AHECs develop and coordinate clinical rotations and residencies in community health centers, migrant health centers, and homeless health centers. AHECs also provide education and support to National Health Service Corp (NHSC) recruits. Finally, AHECs participate in and collaborate with other HRSA-funded initiatives and programs when opportunities arise. The State G AHEC, for example, holds a HRSA grant as a Center of Excellence in Women’s Health. Similarly, the State E AHEC partners with the HRSA-funded Enterprise of the (Region) program, which includes 13 rural counties in a poor region of the state. Undoubtedly, additional examples exist of collaboration between AHECs and other HRSA-funded initiatives and programs.

Nonetheless, we believe that, as catalysts and vehicles for inter-organizational collaboration, AHECs represent an under-utilized resource for promoting synergy across HRSA-funded initiatives and programs. Generally speaking, HRSA access-enhancing programs are restricted to either delivering care or developing resources. For example, community health centers provide health care services, while NHSC and Title VII programs develop human
resources. While AHECs belong to the resource development part of HRSA, they actually accomplish their work by developing local networks that bring together the resource development components with the service delivery components. Given the competency, experience, and reputation that AHECs possess in creating such networks, AHECs may provide HRSA with a unique opportunity for unifying some of the Agency’s more disparate activities.

HRSA’s Bureaus are expected to collaborate and, to some extent, they do. However, collaboration among the Bureaus is constrained by the focused nature of their primary missions. The AHEC mission, by contrast, is more open to boundary spanning and, as indicated above, the AHECs themselves act primarily as catalysts and vehicles for inter-organizational collaboration (i.e., as “inter-organizations”). As such, HRSA could capitalize on the AHEC Program as a “platform” for inter-bureau collaboration. Such collaboration would benefit each bureau (and HRSA generally) by maximizing power and influence on health resource issues, pooling resources and expertise, sharing responsibility for interrelated issues (e.g., cultural competency and primary care for under-served populations), facilitating coordinated action, and minimizing duplication of activities.

The following example illustrates the advantages of such collaboration. The (State) Primary Care Association (PCA) – a non-profit trade association representing all of the community and migrant health centers in the state – received a SEARCH grant from the National Health Service Corps (NHSC) and
approached the AHEC to help the association meet the objectives of the grant. Shortly after winning the grant, the association realized that it could not easily set up community-based rotations for health professionals because it did not have strong linkages with academic medical centers. Realizing that it would be “ridiculous to recreate everything that the AHEC already has,” the association’s executive director approached AHEC and said, “Let’s work together on this one.” AHEC agreed to contract with the PCA to run the SEARCH Program and organize the clinical rotations. The Executive Director observed that the collaboration has been:

Quite frankly phenomenal…. This fits into the overall sphere that I think AHECs were designed to do…. What the AHEC has done here is to allow us to educate those students and make them aware of what a CHC is… So, the net result is we hook them right in… You have to understand I’m tired of going out and hiring NHSC scholarship recipients, they are there for two years and they’re out… It’s a waste of time, it’s a waste of money.

He describes how the collaboration between the PCA and the AHEC on the SEARCH project has been a way of getting “everybody sitting down and taking their pieces of money together and making it work for all of us and actually benefiting the people its supposed to benefit (the under-served).”

The value-added nature of AHEC-community health center partnerships goes beyond student placements. The State I AHEC, for example, appears to have developed a strong relationship with the trade association representing the forty or so community health centers in the state. The Director of the trade association remarked:
AHEC has played a meaningful role in attracting speakers, getting CME credits for physicians…. It is a valuable tool at the local level to provide training and educational assistance. They also assist as a resource in staffing (helping to hire and find) at the local level. They help us connect with schools that produce clinicians that could work in our facilities. They are a health education resource in each region for educational and training programs. They have a multitude of resources for recruitment and retention. They become a virtual catch-all for the under-served, rural communities and urban centers…. I think that we need the AHEC Program around to help us with our mission, which is to provide care to under-served populations. We are targeted to provide care and assistance in under-served communities and AHEC plays a role in this. They are a great expenditure of taxpayers’ dollars. I can speak to their good works.

Finally, other interview participants remarked that community health centers and migrant health centers want culturally competent physicians and other health professional to help them serve their populations better. AHECs could play an invaluable role in creating a more culturally competent and diverse workforce.

**F. Summary of Findings**

In sum, the ability to partner with a wide array of agencies and organizations, and the breadth and depth of partnerships forged, are critical success factors for AHECs. Partnerships are the principal means by which AHECs advance their mission through programmatic activity. Effective AHECs not only function as bridge-builders linking academic health science centers to communities, but also serve as platforms for statewide and community-targeted initiatives emerging from state and federal agencies, private foundations, and local organizations or groups. Opportunities exist for AHECs to partner with federal agencies seeking to roll out initiatives or activities that involve community-based education and training for health professionals. Moreover,
opportunities exist for AHECs to serve as “glue” that would unify related HRSA programs and activities.
Summary and Concluding Remarks

The evaluative study reinforces the oft-heard statement that “once you’ve seen one AHEC, you’ve seen one AHEC.” However, there are important common threads that bind these organizations and systems together and make them more alike than unlike. These are complex inter-organizational entities that mix history, local conditions, and national priorities in unique combinations to achieve social and professional change. They do share a relatively well-stated and recognized mission, which is to support the education and placement of primary care health professionals and other health professionals to care for under-served populations. That mission is well-understood at all levels of the AHEC structure despite its lack of complete recognition within its host or partner institutions and among its primary clients—health professional students.

There was clear evidence that “brand-awareness” of AHECs remains low at local, state, and national levels. One informant was explicit about AHEC identity as a “brand” and the awkwardness of the program name:

There is a branding issue. It takes too long to say Area Health Education Center. I’m trying to think of a better brand and I haven’t thought of one yet. But it’s a mouthful. (Community liaison)

Many informants described the broader challenges of the visibility of the AHEC Program (on the local, state and national levels) and the related issues of the inadequacy and uncertainty of funding. While many participants were concerned about the availability of funds to support existing programs, others went further,
noting the ways that financial uncertainty hampered their Programs’ ability to expand and change in response to the needs of the community.

[A challenge is] trying to explain the AHEC mission in a short enough period of time that you don’t lose your audience. I was told to explain AHEC in the amount of time it would take you to enter an elevator and get off on the 10th floor. (Center Director)

The challenge to quickly describe the mission and role of the AHECs is especially important in the annual funding cycles for the national AHEC Program and for state programs where busy Congress members and legislators must consider many similar programs and appropriations requests. The challenge in communicating what AHECs are and do is also part of the process of recruiting network partners. One focus group informant put it this way:

Our challenge is to tell people in a clearly non-confrontational, non-defensive way that this is what we do. And to share some of our stories. Because I don’t think we’ve done that well. (Center Director)

This perception is shared by the people who are charged with representing community interests. Several board members discussed the problems of identity and awareness in ways similar to this:

With our southern district we are still at the awareness stage. I am constantly telling people what AHEC is, what some of our goals are, and once they hear about it, they’re excited and want to get things going. But...they’re [still] not sure what this is all about.

In a perfect AHEC utopia we would be like a one-stop shop. We would help that student from junior high on up and then after they finish medical school we could be there for them to help establish their practice. And then as they grow in their practice also to offer CE and offer them that little edge to compete against the cities that would have the big schools and the big programs. But unfortunately we have to pick and choose because of our funding.

These discussions of identity raise issues of both the specific nature of the AHEC Program, as a many-faceted activity that relates to multiple other, more
dominant initiatives, as well as to the larger context of health professions education. In the former sense, AHECs must often subsume their identities under programs and activities that have a more direct effect on populations and policies; these include the academic health centers as well as the direct care institutions that provide services for the underserved. In the broader health professions education context, the lack of a unified national policy for health professions education adds to the challenge of creating a health care workforce and means that the various elements must, in essence, compete separately for support and funding. This can help the best programs and initiatives rise to the top, but also can suppress or eliminate other elements of the system which cannot show direct effects but are necessary to the success of other elements.

AHECs are clearly inter-organizational structures and lessons learned from other fields and systems that involve inter-organizational relationships are applicable to AHECs. These inter-organizational alliances that are developed with the AHEC as the stimulating agent are heavily dependent upon a complex web of alliances and agreements. To be successful, AHECs must manage and facilitate varying degrees of interdependency and commitment among the elements that make up health professions education and which provide services to communities with shortages of health professionals. They must work at an individual-organization-community level to develop comprehensive programs to address local educational and health care needs through activities and services which are actually delivered at that level. At the same time, they must work with and within centralized institutions to adapt their
internal activities, such as curriculum and policy, to the mission of the AHECs and the communities they serve. A key finding of the evaluative study is that partnerships do make a difference and that partnerships fostered using the AHEC model have been mutually beneficial to the parties involved. That benefit explains the persistence of this somewhat fragile inter-organizational form.

The evaluative study also has learned that the measurement of the productivity of educational and training systems and institutions is complex and defies precise quantification, however, the success of the AHECs is equally dependent upon their production of viable inter-organizational linkages as well as trained professionals who will care for the under-served. The site visits revealed how diverse these alliances are and how difficult they are to count in any meaningful way, but they are necessary to the primary goals of the AHECs – the production of an effective, appropriate health care workforce for the nation.
References


## Appendix A1: Success Indicators Data Sources

### Rational Goal Model

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>INDICATORS</th>
<th>Data Source</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have clearly defined, mutually agreed-upon priorities and goals</td>
<td>AHEC leaders report agreement on priorities and goals</td>
<td>Interview</td>
<td>Consensus/Divergence on priorities</td>
</tr>
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<td></td>
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<td>APP: Budget</td>
<td>Funding matches priorities</td>
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<td>CPMS-UPR data</td>
<td>Activity level matches priorities</td>
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<tr>
<td>Demonstrate balance of state (national) priorities and local (community) priorities</td>
<td>AHEC activities consistent with national goals</td>
<td>APP: Project Requirements</td>
<td>Logical consistency of activities and national goals</td>
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<td></td>
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<td>APP: Center Requirements</td>
<td>Scope or intensity of activities per goal</td>
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<td>APP: Project Objectives</td>
<td>Cumulativeness of activities (mutually reinforcing)</td>
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<td>Interview</td>
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<td>Consensus/Divergence on priorities</td>
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<td>APP: Center Requirements</td>
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<td>APP: Project Objectives</td>
<td>Activity level matches priorities</td>
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<tr>
<td>Show a track record of progress toward goals</td>
<td>AHEC priorities and goals match community needs</td>
<td>APP: Budget</td>
<td>Consensus/Divergence on priorities</td>
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<td>Interview</td>
<td>Funding matches priorities</td>
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<td>APP: Table 3-A</td>
<td>Activity level matches priorities</td>
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<tr>
<td>Primary care?</td>
<td>AHEC priorities and goals match community needs</td>
<td>APP: Budget</td>
<td>Consensus/Divergence on priorities</td>
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<td>Interview</td>
<td>Funding matches priorities</td>
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<td>APP: Table 3-A</td>
<td>Activity level matches priorities</td>
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<td>Show a track record of progress toward goals</td>
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<td>Logical consistency of activities and national goals</td>
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<td>APP: Project Requirements</td>
<td>Consensus/Divergence on priorities</td>
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<td>APP: Project Objectives</td>
<td>Activity level matches priorities</td>
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<td>Interview</td>
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<td>APP: Project Requirements</td>
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<td>APP: Center Requirements</td>
<td>Funding matches priorities</td>
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<td>APP: Project Objectives</td>
<td>Activity level matches priorities</td>
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### Internal Process Model

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<tr>
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<th>INDICATORS</th>
<th>Data Source</th>
<th>Measures</th>
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<tbody>
<tr>
<td>Have Fiscally Sound Operations</td>
<td>AHEC meets budget</td>
<td>APP: Budget</td>
<td>On-site accounting data</td>
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<td>AHEC has effective budgeting procedures</td>
<td>Interview</td>
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<td></td>
<td>AHEC has effective transaction procedures</td>
<td>Interview</td>
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<td>AHEC has effective accounting procedures</td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>Have Coordinated Activities</td>
<td>Program/Center adequately staffed</td>
<td>Interview</td>
<td>Number of staff (under-staffing a problem?)</td>
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<tr>
<td></td>
<td>Administrative coordination</td>
<td>Interview</td>
<td>Program – Center coordination (communication)</td>
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<td>Program – AHSC coordination (communication)</td>
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<td>Center – Center coordination (communication)</td>
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<td></td>
<td>Center – Community Partner coordination (communication)</td>
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<tr>
<td>Task coordination</td>
<td>Interview</td>
<td></td>
<td>E.g., scheduling, publicity, logistics for individual activities</td>
</tr>
<tr>
<td>Have Effective Monitoring and Measurement Systems in Place</td>
<td>AHEC staff/leaders use data on health personnel needs</td>
<td>APP: Center Requirements</td>
<td>Type, quality, and timeliness of data</td>
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<tr>
<td></td>
<td>Interview</td>
<td></td>
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<tr>
<td></td>
<td>AHEC staff/leaders measure and monitor project and center performance</td>
<td>APP: Project Objectives</td>
<td>Quality of task-outcome-indicator linkage</td>
</tr>
<tr>
<td></td>
<td>Interview</td>
<td></td>
<td>Quality and timeliness of data</td>
</tr>
<tr>
<td></td>
<td>AHEC staff/leaders use performance data for goal setting and improvement</td>
<td>Interview</td>
<td>How data are used beyond meeting reporting requirements</td>
</tr>
<tr>
<td>Have Clearly Defined Roles and Responsibilities for Internal Stakeholders</td>
<td>Internal stakeholders have clear idea of their roles and responsibilities</td>
<td>Affiliation agreements</td>
<td>[Our own judgments?]</td>
</tr>
<tr>
<td></td>
<td>Memoranda of understanding</td>
<td>Perceived clarity of roles and responsibilities</td>
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<td></td>
<td>Contracts</td>
<td>Reported conflict regarding roles and responsibilities</td>
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<td>Advisory board bylaws</td>
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<td>Organization charts</td>
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<td></td>
<td>Interview</td>
<td></td>
<td>Perceived clarity of roles and responsibilities</td>
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<td></td>
<td>Reported conflict regarding roles and responsibilities</td>
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<td></td>
<td>Internal stakeholders have clear idea of other stakeholders’ roles and</td>
<td>Interview</td>
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<td></td>
<td>responsibilities</td>
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### Human Relations Model

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<th>INDICATORS</th>
<th>Data Source</th>
<th>Measures</th>
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</thead>
<tbody>
<tr>
<td>Have Committed Set of Internal Stakeholders</td>
<td>AHSC commits or helps secure funding and other resources for AHEC</td>
<td>APP: Budget</td>
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<tr>
<td></td>
<td>AHSC and Community Partners exhibit cooperation and mutual adjustment</td>
<td>Interview</td>
<td></td>
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<tr>
<td>Have Satisfied Set of Internal Stakeholders</td>
<td>Internal stakeholders report feeling satisfied with AHEC</td>
<td>Interview</td>
<td></td>
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<td></td>
<td>Internal stakeholders show low turnover</td>
<td>APP: Interview</td>
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</tbody>
</table>

### Factors Likely to Influence Degree of Commitment and Satisfaction

- Sense of stake in AHEC success
- Perceived organizational influence in decision-making
- Perceived influence of advisory board
- Local control over local resources
- Procedural equity in decision-making
- Distributive equity in resource allocation
- Perceived adequacy of resources/support from AHEC
- Perceived responsiveness/flexibility of AHEC
- Perceived effectiveness (success) of AHEC
- Perceived quality of activities
- AHEC offers programs not otherwise available
- Makes optimal use of technology and leads technology implementation
- Perceived leadership of AHEC in health professions education
- AHEC perceived as committed to collaboration
## Open Systems Model

<table>
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<tr>
<th>CHARACTERISTICS</th>
<th>INDICATORS</th>
<th>Data Source</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure Needed Resources from their Environments</td>
<td>AHEC Program and Centers receive stable funding from state</td>
<td>APP: Budget Interview</td>
<td>Percentage of funding provided by state Waiver status and rationale Plan for self-sufficiency</td>
</tr>
<tr>
<td></td>
<td>AHEC Program receives funding from diverse sources</td>
<td>APP: Budget Interview</td>
<td>Trend in state funding over time Waiver status and rationale Plan for self-sufficiency</td>
</tr>
<tr>
<td></td>
<td>AHEC Program and Centers receive funding from local sources</td>
<td>APP: Budget Interview</td>
<td>HHI of funding across sources</td>
</tr>
<tr>
<td>Have Legitimacy in Eyes of External Stakeholders</td>
<td>External stakeholders perceive AHEC as important</td>
<td>Interview</td>
<td>% Funding from local sources</td>
</tr>
<tr>
<td></td>
<td>External stakeholders perceive AHEC as successful</td>
<td>Interview Activity Evaluation Forms??</td>
<td></td>
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<tr>
<td></td>
<td>External stakeholders seek input from AHEC on important decisions</td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>Show Adaptability to Changing Environmental Conditions (Responsive)</td>
<td>AHEC generates new education and training activities in response to changing environmental conditions</td>
<td>APP: Progress Report Interview</td>
<td>Procedures (type and adequacy) for identifying opportunities Number, type of new activities Changes in existing activities Response to challenges</td>
</tr>
<tr>
<td>Demonstrate Innovativeness (Generative)</td>
<td>AHEC generates new education and training activities on its own initiative</td>
<td>APP: Progress Report Interview</td>
<td>Procedures (type and adequacy) for identifying opportunities Number, type of new activities Changes in existing activities Response to challenges</td>
</tr>
</tbody>
</table>
## Appendix A2: Success Strategies Data Sources

### Rational Goal Model

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>STRATEGIES</th>
<th>SAMPLE INTERVIEW QUESTIONS</th>
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<tbody>
<tr>
<td>Have clearly defined, mutually agreed-upon priorities and goals</td>
<td>Make goals explicit (with targets)</td>
<td>[Rating and Ranking Form]</td>
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<tr>
<td></td>
<td>Create common values through selection and socialization of internal stakeholders</td>
<td>In your view, do program leaders, center leaders, AHSC leaders and community partners generally agree on the priority of these goals?</td>
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<tr>
<td></td>
<td>Seek “collaboration zones”</td>
<td>If agreement is low...What important differences do you see? What accounts for these differences? What could be done to minimize these differences?</td>
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<td></td>
<td>Create fair decision-making procedures (consistent, transparent)</td>
<td>If agreement is high...What accounts for this high level of agreement? How has this high level of agreement been achieved?</td>
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<td>Demonstrate equity in resource allocation decisions</td>
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<tr>
<td>Demonstrate balance of state (national) priorities and local (community) priorities</td>
<td>Demonstrate appropriate levels of autonomy from host or sponsoring institution</td>
<td>To what extent has it been a challenge to balance state and local priorities? Could you give a specific example? What factors make it challenging to balance state and local priorities? How have you attempted to achieve balance? How well have these strategies worked?</td>
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<td></td>
<td>Actively seek out and encourage input from internal stakeholders on a regular basis (e.g., influential advisory board)</td>
<td>[Role in Decision-Making Form]</td>
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<td>Promote goal alignment through persuasion (e.g., appeal to common goals)</td>
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<td></td>
<td>Make “tough calls” and provide explanations</td>
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<tr>
<td>Show a track record of progress toward goals</td>
<td>Bring right mix of internal stakeholders to the table</td>
<td>Do you feel that AHEC provides sufficient resources to meet your contractual obligations?</td>
</tr>
<tr>
<td></td>
<td>Clarify and strengthen linkages among priorities, goals, activities, and outcomes</td>
<td>Do you feel that the Program Office provides you with sufficient control over resources?</td>
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<td>Use contracts and other explicit means to clarify roles, responsibilities, and accountabilities</td>
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<td></td>
<td>Provide adequate support/resources for task accomplishment</td>
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<td></td>
<td>Provide local control over local resources</td>
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<td>Develop effective measurement and monitoring systems</td>
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<tr>
<td>Exhibit high productivity</td>
<td>Leverage “small wins” early on to set and achieve more ambitious goals</td>
<td>How easy is it to get things done through AHEC? Say you had a special request or new idea. How easy would it be to make it happen? How responsive are AHEC leaders and staff?</td>
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<td></td>
<td>Create a “can do” climate of accomplishment by providing feedback and recognition</td>
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## Internal Process Model

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>STRATEGIES</th>
<th>SAMPLE INTERVIEW QUESTIONS</th>
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<tbody>
<tr>
<td>Have Fiscally Sound Operations</td>
<td>☐ Develop effective budgeting procedures</td>
<td>☐</td>
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<tr>
<td></td>
<td>☐ Use contracts and other explicit means to clarify roles, responsibilities (accountability)</td>
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<td></td>
<td>☐ Develop effective transaction processes</td>
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<td></td>
<td>☐ Develop effective accounting procedures</td>
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<tr>
<td>Have Coordinated Programs and Activities</td>
<td>☐ Develop adequate communication procedures for internal stakeholders</td>
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<td></td>
<td>☐ Develop effective scheduling capabilities</td>
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<tr>
<td>Have Effective Monitoring and Measurement Systems in Place</td>
<td>☐ Build checkpoints into contracts</td>
<td>☐ Look at contracts</td>
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<tr>
<td></td>
<td>☐ Develop contractual monitoring capabilities (e.g., reporting procedures)</td>
<td>☐ What kind of reporting procedures do you have in place to keep track of contracted activities?</td>
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<td>☐ Develop a common measurement system</td>
<td>What kind of data do you collect? How often?</td>
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<td></td>
<td>☐ Develop information systems capabilities</td>
<td>How timely, accurate, and useful are they?</td>
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<tr>
<td></td>
<td>☐ AHEC regularly reviews performance data</td>
<td>☐ What kind of data do you use to gauge whether the AHEC is meeting its goals and objectives?</td>
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<td></td>
<td>How do you obtain these data? How timely, accurate, and useful are they?</td>
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<td></td>
<td>How do you actually use them (e.g., who reviews them, how often, what happens after review)?</td>
</tr>
<tr>
<td>Have Clearly Defined Roles and Responsibilities for Internal Stakeholders</td>
<td>☐ Use contracts and other explicit means to clarify roles, responsibilities, and accountabilities</td>
<td>☐ Look at contracts, bylaws, organization charts</td>
</tr>
<tr>
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<td>☐ Develop bylaws and organization charts that show clearly defined roles, responsibilities, and reporting relationships</td>
<td>☐ Do you feel that you have a clear sense of your organization’s role in AHEC? Do you feel that you have a clear sense of other organization’s role in AHEC?</td>
</tr>
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<td>☐ What changes would you like to see in your organization’s role in AHEC? What changes would you like to see in other organizations’ role in AHEC?</td>
</tr>
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</table>
### Human Relations Model

<table>
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<tr>
<th>CHARACTERISTICS</th>
<th>STRATEGIES</th>
<th>SAMPLE INTERVIEW QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have Committed Set of Internal Stakeholders</td>
<td>❑ Create a sense of “stake” in AHEC through goal alignment</td>
<td>❑ How important is the AHEC to your organization? To what extent does AHEC help your organization achieve its own goals?</td>
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<td>❑ Actively seek out and encourage input from internal stakeholders on a regular basis (e.g., influential advisory board)</td>
<td>❑ Does your organization actively participate in identifying program needs? In priority setting? In program development?</td>
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<td>❑ Create fair decision-making procedures (consistent, transparent)</td>
<td>❑ When conflict arises, do people generally cooperate to find a mutually acceptable solution?</td>
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<td>❑ Demonstrate equity in resource allocation decisions</td>
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<td>❑ Provide adequate support/resources for task accomplishment</td>
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<td>❑ Strengthen capacity of stakeholders to achieve their own goals (e.g., provide leadership on workforce issues in under-served areas)</td>
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<tr>
<td>Have Satisfied Set of Internal Stakeholders</td>
<td>❑ Leverage existing programs and resources rather than duplicate or compete (i.e., act catalytically or synergistically)</td>
<td>❑ In your view, does AHEC duplicate or compete with your organization?</td>
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<td>❑ Local control of local funding</td>
<td>❑ Do you feel that AHEC is responsive to your organizations needs?</td>
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<td>❑ Actively solicit input from internal stakeholders on a regular basis (e.g., influential advisory board)</td>
<td>❑ Do you feel satisfied with the way decisions are made?</td>
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<td>❑ Demonstrate responsiveness and flexibility to internal stakeholder needs</td>
<td>❑ Do you feel that the AHEC makes good decisions?</td>
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<tr>
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<td>❑ Create fair decision-making procedures (consistent, transparent)</td>
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<td>❑ Demonstrate equity in resource allocation decisions</td>
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## Open Systems Model

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<th>STRATEGIES</th>
<th>SAMPLE INTERVIEW QUESTIONS</th>
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<tbody>
<tr>
<td><strong>Secure Needed Resources from their Environments</strong></td>
<td>✦ Develop effective lobbying capability (issue selling, negotiating, brokering)</td>
<td>✦ What strategies have you used to identify and pursue external funding?</td>
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<td>✦ Communicate regularly with state officials about the purpose, activities, and performance of AHEC</td>
<td>✦ How (and how often) often do you communicate with state officials about the purpose, activities, and performance of AHEC?</td>
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<td>✦ Develop effective recruitment capability</td>
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<tr>
<td><strong>Have Legitimacy in Eyes of External Stakeholders</strong></td>
<td>✦ Communicate regularly with external stakeholders about the purpose, activities, and performance of AHEC</td>
<td>✦ How important is the AHEC to your organization or constituency? In what ways is it important? How does it help your organization or constituency meet its own objectives?</td>
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<td>✦ Demonstrate responsiveness to needs and interests of external stakeholders</td>
<td>✦ How successful is the AHEC in terms of ____?</td>
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<td>✦ Demonstrate appropriate levels of autonomy from host or sponsoring institution</td>
<td>✦ Do you seek input from AHEC issues affecting ____?</td>
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<td>✦ Has AHEC been responsive to your organization or constituency’s needs?</td>
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<td>✦ What strategies have you used to gain political support for AHEC?</td>
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<tr>
<td><strong>Show Adaptability to Changing Environmental Conditions (Responsive)</strong></td>
<td>✦ Engage in routine environmental scanning</td>
<td>✦ How do you identify emerging workforce trends and issues? How do you acquire this information? How often? How effective is this process? How do you use this information?</td>
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<td>✦ Develop process for reflecting upon and incorporating information gleaned from environmental scanning</td>
<td>✦ Do you have enough organizational flexibility to respond to changing conditions or emerging trends? Engage in routine environmental scanning</td>
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<td>✦ Create organizational flexibility to reallocate human and financial resources as needed</td>
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<td>✦ Local control of local funding</td>
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<tr>
<td><strong>Demonstrate Innovativeness (Generative)</strong></td>
<td>✦ Engage in future-oriented thinking/planning</td>
<td>✦ What process do you use to identify or anticipate future needs? How often do you engage in this process? How effective is it? How do you incorporate this information gleaned from this process into AHEC planning and activity?</td>
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<td></td>
<td>✦ Maintain close contact with internal and external stakeholders</td>
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<tr>
<td></td>
<td>✦ Local control of local funding</td>
<td></td>
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</tbody>
</table>
### Organizational Characteristics

1. Year Established
2. Program Director
   a. Tenure in Position (years)
3. Number of Staff (FTEs)
4. Would you please provide a copy of your AHEC program’s organization chart that describes positions and lines of authority among program staff and between the program office and external stakeholders (such as academic and community partners)? Please include in the return package.
5. Please provide the following contact information for key program staff (or attach a current listing).

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</table>
6. Services offered (check all that your program directly sponsors, conducts, or coordinates)

- Continuing Education
- Residency Training (in medicine)
- Workforce Research
- Workforce Development
- Basic Education (in one or more health professions)
- Library
- Other Direct Training (e.g. mentorship, internships)
- Student Placements
- Distance Learning (via internet or tele-education)
- Cultural Competency Training

Other ______________________________________________________________________________________________

7. Disciplines included in #6 (check all that apply)

- Primary Care Medicine
- Pharmacy
- Dentistry
- Nursing
- Allied Health

Other ______________________________________________________________________________________________

8. Special topics or programs you sponsor

List ________________________________________________________________________________________________

9. Please list/describe briefly your AHEC’s top 5 priorities or goals, in descending order of importance (i=most important, v=least important).

(i) ________________________________________________________________________________________________

(ii) ______________________________________________________________________________________________

(iii) ______________________________________________________________________________________________

(iv) ______________________________________________________________________________________________

(v) ______________________________________________________________________________________________
**Advisory Board**

10. Please provide the following information for AHEC Advisory Board Members (or attach a current listing).

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11. How frequently does this board meet as a whole? ___________________________

12. Please briefly describe the role of the advisory board and the authority given to this board in defining the program’s activities and curriculum (e.g. do they determine the program goals, plan the program’s educational curriculum, etc.).

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

13. Would you please provide us with copies of your Board’s (or Organization’s) bylaws? If so, please attach.
### Key Program Partners

14. Please identify key AHEC Stakeholders/Program Partners and briefly describe their partnership with your AHEC.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Type*</th>
<th>Contact Person</th>
<th>Phone/Email</th>
<th>Relationship**</th>
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* Type: Residency Training, Academic Partner, State/Local Government, etc.
**Relationship: provides funding, trains residents, hosts programs, etc.
Program Finances

15. Would you be willing to provide a copy of your most recent annual budget? If so, please attach.

16. Would you be willing to provide copies of contractual agreements between your office and your funders? Between your office and the organizations/centers you provide funding to? If so, please attach.

17. Please identify the person responsible for monitoring your program’s finances (either within your organization or your host institution).
   Name, Title ____________________________________________________________________________________
   Phone/Email ______________________________________________________________________________________

18. Please provide the following information about all sources of revenue

   Source     Amount     New source within last year/purpose (Y/N)   If not new, # years received
   ____________________________________________________________
   ____________________________________________________________
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   ____________________________________________________________
19. Please provide the following information about major expenditures during the last year (examples: program staff, research center activity, equipment for telecommunications, consultants).

<table>
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<th>Recipient/Purpose</th>
<th>Amount</th>
<th>New Recipient/Purpose (Y/N)</th>
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Environmental Context

20. Please list the top five health care issues or problems facing your state/region, in descending order of importance (examples: workforce shortages, access to care for the uninsured, high occurrence of particular disease, etc.)

(i)________________________________________________________________________________________________

(ii)________________________________________________________________________________________________

(iii)________________________________________________________________________________________________

(iv)________________________________________________________________________________________________

(v)________________________________________________________________________________________________

21. Have there been any important changes in the health care environment in your state in the last 5 years? If so, please describe.

_________________________________________________________________________________________________

_________________________________________________________________________________________________

_________________________________________________________________________________________________
Appendix B2: Advance Survey for AHEC Center

AHEC Center Name: ____________________________________________________________
Address: __________________________________________________________________
Phone: _____________________________________________________________________
Fax: _______________________________________________________________________

Person to Contact at AHEC with
Questions about Site Visit: _______________________________________________________
Phone/Email: ____________________________

Organizational Characteristics

1. Year Established _____________________________________________________________
2. Center Director ____________________________________________________________
   a. Tenure in Position _________________________ (years)
3. Number of Staff __________________________ (FTEs)
4. Would you please provide a copy of your AHEC center’s organization chart that describes positions and lines of authority among program staff and between the center and external stakeholders (such as academic and community partners)? Please include in the return package.
5. Please provide the following contact information for key center staff (or attach a current listing).

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AHEC Evaluative Study, 2002
258
6. Services offered (check all that your program directly sponsors, conducts, or coordinates)
   __ Continuing Education  __ Library  __ Distance Learning (via internet or tele-
   __ Residency Training (in medicine)  __ Other Direct Training (e.g.     education)
   __ Workforce Research     mentorship, internships)  __ Cultural Competency Training
   __ Workforce Development  __ Student Placements
   __ Basic Education (in one or more health professions)
   Other  

7. Disciplines included in #6 (check all that apply)
   __ Primary Care Medicine  __ Pharmacy  __ Dentistry
   __ Nursing  __ Allied Health
   Other  

8. Special topics or programs you sponsor
   List  

9. Please list/describe briefly your AHEC’s top 5 priorities or goals, in descending order of importance (i=most important, v=least important).
   (i)  
   (ii)  
   (iii)  
   (iv)  
   (v)  

**Advisory Board**

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11. How frequently does this board meet as a whole?  ___________________________

12. Please briefly describe the role of the advisory board and the authority given to this board in defining the center’s activities and curriculum (e.g. do they determine the program goals, plan the program’s educational curriculum, etc.).

13. Would you please provide us with copies of your Board’s (or Organization’s) bylaws? If so, please attach.
**Key Center Partners**

14. Please identify key AHEC Stakeholders/Center Partners and briefly describe their partnership with your AHEC.

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*Type: Residency Training, Academic Partner, State/Local Government, etc.

**Relationship: provides funding, trains residents, hosts programs, etc.
Center Finances

15. Would you be willing to provide a copy of your most recent annual budget? If so, please attach.

16. Would you be willing to provide copies of contractual agreements between your office and your funders? Between your office and the organizations/centers you provide funding to? If so, please attach.

17. Please identify the person responsible for monitoring your center’s finances (either within your organization or your host institution).

   Name, Title
   ____________________________________________________________

   Phone/Email
   ____________________________________________________________

18. Please provide the following information about all sources of revenue

   Source  Amount  New source within last year/purpose (Y/N)  If not new, # years received

   ____________________________________________________________

   ____________________________________________________________

   ____________________________________________________________

   ____________________________________________________________

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   ____________________________________________________________
20. Please provide the following information about major expenditures during the last year (examples: center staff, research center activity, equipment for telecommunications, consultants).

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Environmental Context

21. Please list the top five health care issues or problems facing your state/region, in descending order of importance (examples: workforce shortages, access to care for the uninsured, high occurrence of particular disease, etc.)

(i)__________________________________________________________________________________________________

(ii)__________________________________________________________________________________________________

(iii)__________________________________________________________________________________________________

(iv)__________________________________________________________________________________________________

(v)__________________________________________________________________________________________________

22. Have there been any important changes in the health care environment in your state in the last 5 years? If so, please describe.

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________

__________________________________________________________________________________________________________
Appendix C: Master Interview List

Key: [PD] = Program Director
     [PS] = Program Staff
     [CD] = Center Director
     [CS] = Center Staff
     [CP] = Community Partners
     [AP] = Academic Partners

Introduction

M1. [ALL] Tell me a little about what you do here. What is your role/involvement with AHEC?

M2. [AP, CP] How well do you understand the AHEC? [probe for what part of its mission/activity they understand /are familiar with]

History

M3. [PD, AP, selected PS] How was the decision made to establish an AHEC Program? [probe only if necessary] [in states where there’s more than one candidate] How was the host medical school chosen?
At the time the program was initiated, what was the level of support within [host institution] for establishing an AHEC Program?
• Has this support changed over time?
• What was the level of local and state support?
• Has this support changed over time? How? Why?

M4. [CD, selected CS] How did you get an AHEC here? [probe for ‘here’ both geographically and organizationally if needed:]
• How did this community end up with an AHEC?
• [only for non-freestanding Centers] How was your institution selected to host [or house, or sponsor] this AHEC Center?
• At the time the program was initiated, what was the level of support here [locally and/or organizationally] for establishing an AHEC Center?
  • Has this support changed over time?
• [only for non-freestanding Centers] Has the institution housing this AHEC changed since it was initiated? [if so] Why?

M5. [CD, PD, CS, PS, Select AP] What major events have shaped the AHEC program/your Center?
• How did the program/center respond to these events? [if necessary, probe] How did you adapt your structures, processes, or programs?
• What has been the impact of these events and consequent changes?
Program Mission and Goals

M6. [PD, CD, PS, CS] How would you describe the purpose of the AHEC? Do you think that the Program Office and the Centers agree on the purpose of the AHEC?
   • [if so] What do you think accounts for this agreement?
   • [if not] What do you think accounts for these differences?

M7. [PS] In the advance survey, the program director provided a rank-ordered list of AHEC priorities. [Display document]
   • How well do you think this reflects the actual program priorities?

M8. [CD, CS] In the advance survey, the program office provided a rank-ordered list of AHEC priorities.
   [Display document]
   • How well do you think this reflects the priorities of your Center?

M9. [AP] In the advance survey, the program office provided a rank-ordered list of AHEC priorities. [Display document]
   • How well do you think this reflects the actual program priorities?
   • How well does it represent your institution’s priorities?

M10. [CP] In the advance survey, the program office provided a rank-ordered list of program priorities. [Display document]
   • How well do you think this reflects community needs and priorities?

M11. [PD, PS, CD, CS] To what extent has it been a challenge to balance state and local priorities?
   Probe as necessary:
   • Could you provide a specific example?
   • What factors make it challenging to achieve a balance?
   • How have you attempted to achieve this balance?
   • How well have these strategies worked?

M12. [select AP, select CP] How well do you think the AHEC balances state and local priorities?

M13. [AP, CP] How important is the AHEC’s work to your organization?
   [if necessary, probe for:]
   • What has AHEC done to help your organization to fulfill its own mission and goals?
   • In what ways has the AHEC not proven helpful?

M14. [ALL] What do you think it means to be a successful AHEC?
   • Which of these criteria are most important? Why?
   • Have your notions of success changed over time?
Programmatic Issues

M15. [PD, CD] How do you identify emerging trends and issues that are important to the AHEC?

M16. [PD, PS, AP] How has the AHEC had an impact on the health professions curriculum here?

M17. [CD, select CS] How responsive is the Program Office to new ideas or requests for special projects from your Center?
   [probe if needed]
   • Could you illustrate that with a specific example?
   • What, if anything, would make it easier to get things done?

M18. [CD, CS] What do you consider to be your model programs and activities? Why?
   • How have your activities changed over time?
   • How have you garnered community support for these activities?

M19. [CD, CS] How has the Center responded to local needs and priorities?

M20. [CP, AP] How responsive has AHEC been to new ideas or special requests from your institution (school)?
   [probe if needed]
   • Could you illustrate that with a specific example?
   • What, if anything, would make it easier to get things done?

M21.[AP, CP] How well organized are AHEC activities (e.g., student rotations, CE, etc)?
   [probes:]
   • Do these activities run smoothly?
   • Have you experienced or observed any coordination problems with respect to these activities (e.g., timing, scheduling, logistics)?

M22.[AP, CP] How does the AHEC use information technology, particularly distance education technology?

Funding

M23. [PD, CD] What’s your most important source of funding? Why?

M24. [PD, select PS] How have you generated and maintained state funding? [Probe if necessary for particular strategies]
   • What factors have been key to generating political support for the program?
   • What barriers have you encountered in getting and maintaining state funding? How have you addressed them?
M25. [PD, select PS] [if they have other funding] How have you generated and maintained other funding? [Probe if necessary for particular strategies]

- What factors have been key to generating institutional support (including in-kind support) for the program?
- What barriers you encountered? How have you addressed them?

M26. [AP, select CP] Tell me about the support you provide to the AHEC.

M27. [CD, CS] Could you describe for me any role your Center has had in generating or maintaining state funding for the Program? [Probe if necessary for particular strategies]

- What factors do you think have been key to generating political support for the program?
- What barriers have you encountered and how have they been addressed?

M28. [CD, CS] How has your Center been able to generate and maintain funding from [NAME OF THE HOST INSTITUTION]? [Probe if necessary for particular strategies]

- What factors do you think have been key to generating institutional support for the program?
- What barriers have you encountered and how have they been addressed?

M29. [PD, CD, select PS] What do you think are barriers to financial self-sufficiency for AHEC? How do you address them? [Probe if necessary:]

- How has federal funding affected your ability to obtain long-term funding?
- How has your project/center structure affected your ability to obtain long-term funding?

**For Centers With External Funding:**

M30. [CD] How have you obtained external funding? [review the application for probes pertaining to the particular kind of funding they’ve gotten]

- What factors have been key to identifying and acquiring external funding?
- What barriers have you encountered? How have you addressed them?

M31. [CD] Do you have plans to obtain external funding?

- What barriers have you encountered in identifying and acquiring external funding?
- How have you addressed them?

**Outgoing funding:**

M32. [PD, CD] What’s your most important expenditure? Why? What do you get for those dollars?

M33. [PD] Do you feel that you have sufficient control over how you allocate funding? Who else exerts control over resources? How do you resolve differences?
M34. [CD] Do you feel that you have sufficient control over the funding that you receive from the Program Office?
• [if not] How do you resolve differences in ideas about how funding should be spent?
• [if so] How did you acquire that kind of control?

M35. [PD, CD] [if necessary] How do you assess the value of your resource allocations? How do you know you’re getting what you pay for?
[select AP, select CP] [for those receiving funds from AHEC] Tell me about the funding you receive from AHEC.
• What are you supposed to be doing in exchange?
• How do they monitor your work?
• Are there any constraints on what you can do with the AHEC funding?

For Fiscal Experts at Program and Center:

M36. [select CS, PS] Do you have a performance accounting process? [if so] Tell me about it. Probe as needed for:
• How well does it work?
• How does it pose problems for the AHEC?
• How does it support the AHEC?

M37. [select CS, PS] Tell me about your accounting procedures. Probe as needed for:
• How well do they work?
• What do you count?
• How do they pose problems for the AHEC?
• How do they support the AHEC?

M38. [select CS, PS] Tell me about your budgeting procedures. Probe as needed for:
• How well do they work?
• What do you budget for? (e.g., what are budget line items – Programs? People? Organizations?)
• How do they pose problems for the AHEC?
• How do they support the AHEC?

Organization and Structure

M39. [PD, PS, AP]. [refer to org. chart] Would you change anything with respect to how the Program Office is positioned within the institution? Why?

M40. [PD, PS, AP] How would you describe the level of integration and coordination between the Program Office and other units and divisions within your institution?

M41. [PD, PS] How do you achieve coordination across Centers?
[Probe as needed]
• What mechanisms do you use? [*mechanisms may include regular meetings, teleconferences, email, brute force, etc.*]
• How well do they work?

M42. [PD] Describe the contractual arrangement between the Program Office and the Centers.
[Probe for what works well and what doesn’t.]

**Three Items For Centers That Are Not Freestanding**

M43. [CD] Could you clarify for me where is the Center located organizationally within the institution?
• How has this arrangement worked for the Center?
• Would you change anything with respect to how the Center is positioned within the institution? Why?

M44. [CD] How would you describe the level of integration and coordination between the Center and other units and divisions within your institution?

M45. [CD] Could you clarify for me the contractual arrangement between your institution and the Program Office.
• How well do you think this arrangement has worked for the Center?

M46. [CD] Why did the Center choose to be an independent non-profit?

M47. [CD] What impact has this status had on the Center?
[probe as needed]
• What was the impact on the stability of your organization?
• What was the impact on program effectiveness?

M48. [PD, CD] How were the members of the Board chosen? What is their responsibility?

M49. [CP] [for board members (either Center or Program)] Describe the relationship between the Board and the AHEC.
[probe as needed]
• How has the relationship benefited the AHEC Program?
• How has it benefited your organization?
• What challenges has the Board faced? How were they resolved?

**Administration**

M50. [PD] How often do you meet with/communicate with the Center Directors and their staff?
• How would you describe the nature of your relationship with the Centers?
M51. [PD] How do you respond to Centers/funded partners that are not performing well?

M52. [PD, PS, CD, CS] How do you monitor Center/funded partner activities and contractual compliance?

- What information do you use to assess Center/funded partner activity and performance?
- How do you obtain this information?
- How timely, accurate, and useful is it?
- How do you use this information? For example, who reviews it? How often?

M53. [CD, CS] How often do you meet with/communicate with the Program Office? [probes]
- How would you describe the nature of your relationships with the Program Office?
- What makes it work that way?

M54. [CD, CS] How often do you meet with/communicate with other Center Directors?
[probes]
- How would you describe the nature of your relationship with the other Centers?
- What makes it work that way?

M55. [AP, CP] How would you describe the nature of your relationships with the Program Office?
- Do you feel that the roles and responsibilities of your institution are clearly defined?
- Would you make any changes to the role or responsibility of your institution?

M56. [PD, PS, CD, CS, AP, CP?] In your view, does the Program office have the staff you/they need to accomplish its tasks?
- Do Program Office staff have the right mix of skills and experience to get their work done effectively?
- Are there any important gaps in staffing quantity or quality?

M57. [PD, PS, CD, CS, AP, CP?] In your view, does the Center have the staff they/you need to accomplish its tasks?
- Do Center staff have the right mix of skills and experience to get their work done effectively?
- Are there any important gaps in staffing quantity or quality?

Partnerships

M58. [AP, CP] How much influence does your organization (school) have in helping AHEC set priorities?

M59. [PD, PS] What partnerships have been key to the AHEC program?
• How did you gain their support?
• Why has that relationship been so beneficial?
• Are there any potential partners you would like to collaborate with in the future?

M60. [AP, PD, CD, select PS] [if not mentioned above] How would you describe the AHEC’s relationship with the state legislature?

M61. [CD] What community partnerships have been key to the Center?
• How did you gain their support?
• Why has your relationship been so beneficial?
• Are there any potential partners you would like to collaborate with in the future?

M62. [PD, select PS, select CD] [if not mentioned above] How would you describe the AHEC’s relationship to state agencies (e.g., Office Rural Health, Office of Primary Care) and/or [OTHER SIMILAR WORKFORCE DEVELOPMENT PROGRAMS OPERATING IN THE STATE]?

M63. [AP, CP] How would you rate the services that AHEC provides?[Probe for:]
• How satisfied are you with education and training services that AHEC provides?
• Does the AHEC provide services that would not be otherwise available?

M64. [CD] Describe the contractual arrangement between your Center and your community partners (e.g., preceptors).
[Probe for what works well and what doesn’t.]

Wrap-up

M65. [ALL] The three cornerstones of AHEC are distribution, diversity, and quality. We’re interested in your impressions of the impact AHEC has had on each, and the barriers AHEC has encountered.
• What impact has AHEC had on the distribution of health professionals in [state]?
• What barriers has AHEC encountered in addressing distribution issues?
• What impact has AHEC had on the diversity of health professionals in [state]?
• What barriers has AHEC encountered in addressing diversity issues?
• What impact has AHEC had on the quality of health professionals in [state]?
• What barriers has AHEC encountered in addressing quality issues?

M66. [ALL] What do you think have been your biggest challenges at this AHEC?

M67. [ALL] What do you think have been your biggest successes?

M68. [ALL] Is there anything else you think I should know?
Appendix D: Focus Group Protocol

Introductions

Thank you for taking the time to join our discussion about how third-year rotations shape medical students’ specialty choices and other practice preferences. My name is ____. I’m a ________ from ________. I will let my colleagues introduce themselves in a moment. We have come to [name of state] to learn more about how the state’s Area Health Education Center (or AHEC) Program works. Our visit is part of a larger research project funded by the Health Resources and Services Administration, a U.S. governmental agency under the Department of Health and Human Services.

Today we will be discussing how your rotations affected your thinking about medical specialty, practice location, and other practice preferences. There are no right or wrong answers but there may be differing points of view. Please feel free to share your point of view even if it differs from what others have said.

Before we begin, let me share some ground rules. We are here to learn from you about your experience. Please speak up -- only one person should talk at a time. We are tape-recording the session because we don’t want to miss any of your comments. If several are talking at the same time, the tape will get garbled and we’ll miss your comments. We will be on a first name basis today, and in our later reports no names will be attached to comments. Your remarks will be confidential. Keep in mind that we’re just as interested in negative comments as positive comments, and at times the negative comments are the most helpful.

Let’s begin. We’ve placed name cards on the table in front of you to help us remember each other’s names. Let’s find out some more about each other by going around the room one at a time. Please tell us your name, where you will be doing your residency, and what specialty you will be pursuing.
1. When you think about your ________ rotation, what would you say were the positive aspects of this experience?

2. What you think about your ________ rotation, what would you say were the negative aspects of this experience?

3. How did your learning experience in your ________ rotation compare to your learning experiences in your other rotations?

   Probe Questions:
   ● Did you encounter a mix of clinical conditions that differed from what you encountered in other rotations?
   ● Did you encounter a mix of patients that differed from what you encountered in other rotations?
   ● Did you practice in a geographic location that differed from what you encountered in other rotations?

4. Did your ________ rotation affect your thinking about your choice of medical specialty?

   Probe Questions:
   ● Did your experience change the way you think about primary care?
   ● If so, in what ways?

5. Did your ________ rotation affect your thinking about your choice of practice location?

   Probe Questions:
   ● Did your experience change your thinking about practicing in a rural town or an inner city?
   ● If so, in what ways?

6. Did your ________ rotation affect your thinking about the kinds of patient populations with whom you would like to work?

   Probe Questions:
   ● Did your experience change your thinking about working with vulnerable or medically under-served populations?
   ● If so, in what ways?

7. Thinking about your experiences prior your rotations and after your rotations, do you think that you were aware of all of the opportunities and choices that existed of specialties, practice locations, and patient populations?
8. Based on your experience during your rotations, would you recommend your rotation site, specialty choice, and population focus to current second-year medical students who are considering their future practices?

_All Things Considered Question_

As you reflect on what we’ve discussed today, what would you say was the most valuable part of your learning experience in your _______ rotation? I’d like to ask you to write down your answer to this question, and then we’ll proceed in a round-robin manner.

_Summary Question_

Let’s summarize the key points of our discussion.

[Give a 5-minute summary of the key themes that emerged from the discussion].

Does this summary sound complete? Do you have any changes or additions you’d like to make?

_Final Question_

Our purpose in putting this focus group together has been to explore how your third-year rotations – particularly your AHEC-sponsored rotations – have affected your thinking about medical specialty, practice location, and other practice preferences. Do you see any key issues that we might have missed?
## Appendix E: AHEC Project and Center Requirements

<table>
<thead>
<tr>
<th>BASIC AND MODEL AHEC PROJECT REQUIREMENTS</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improve the recruitment, distribution, supply, quality and efficiency of personnel providing health services in under-served rural and urban areas and personnel providing health services to populations having demonstrated serious unmet health area needs.</td>
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<td>2. Increase the number of primary care physicians and other primary care providers who provide services in under-served areas through the offering of an educational continuum of health career recruitment through clinical education concerning under-served areas in a comprehensive health workforce strategy.</td>
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<tr>
<td>3. Carry out recruitment and health career awareness programs to recruit individuals from under-served areas and underrepresented populations, including minority and disadvantaged, and other elementary and secondary students, into the health professions.</td>
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<td>4. Prepare individuals to more effectively provide health services to under-served areas or under-served populations through field placements, preceptorships, the conduct of or support of community-based primary care residency programs, and agreements with community-based organizations such as community health centers, migrant health centers, Indian health centers, public health departments and others.</td>
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<td>5. Conduct health professions education and training activities for students for health professions schools and medical residents.</td>
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<td>6. Conduct at least 10 percent of medical student required clinical education at sites remote to the primary teaching facility of the contracting institution. (Complete the 10 Percent Table which follows.)</td>
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<td>7. Provide information dissemination and educational support to reduce professional isolation, increase retention, enhance the practice environment, and improve health care through the timely dissemination of research findings using relevant resources.</td>
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<td>General Provision: Applicants shall collaborate with 2 or more disciplines.</td>
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## AHEC CENTER REQUIREMENTS

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<tr>
<th>Requirement</th>
<th>YES</th>
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<tbody>
<tr>
<td>1. Each area health education center that receives funds under this section shall encourage the regionalization of health professions schools through the establishment of partnerships with community-based organizations.</td>
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<td>2. Each area health education center that receives funds under this section shall specifically designated a geographic area or medically under-served population to be served by the center. Such area or population shall be in a location removed from the main location of the teaching facilities of the schools participating in the program with such center.</td>
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<td>3. Each area health education center that receives funds under this section shall meet the following four requirements:</td>
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<tr>
<td>a. Assess the health personnel needs of the area to be served by the center and assist in the planning and development of training programs to meet such needs;</td>
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<tr>
<td>b. Arrange and support rotations for students and residents in family medicine, general internal medicine or general pediatrics, with at least one center in each program being affiliated with or conducting a rotating osteopathic internship or medical residency training program in family medicine (including geriatrics), general internal medicine (including geriatrics), or general pediatrics in which no fewer than 4 individuals are enrolled in first-year positions;</td>
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<td>c. Conduct and participate in interdisciplinary training that involves physicians and other health personnel including, where practicable, public health personnel, physician assistants, nurse practitioners, nurse midwives, behavioral and mental health providers; and</td>
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<tr>
<td>d. Have an advisory board, at least 75 percent of the members of which shall be individuals, including both health service providers and consumers, from the area served by the center.</td>
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The Center Director should have at least a 75% time requirement allocated solely to the conduct of Center duties and responsibilities.
Appendix F: Contact Summary Form

<table>
<thead>
<tr>
<th>Site:</th>
<th>Contact Date</th>
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<tbody>
<tr>
<td>Interview:</td>
<td>Today’s Date</td>
</tr>
<tr>
<td>Focus Group:</td>
<td>Written By:</td>
</tr>
</tbody>
</table>

1. *What were the main issues or themes that struck you in this contact?*

   *Mission and Goals*

   *History/Funding*

   *Organization/Structure*

   *Programmatic Issues*

   *Administration*

   *Partnerships*

2. *What new (or unanswered) questions do you have as a result of this contact?*

3. *Please list any documents mentioned in the contact that we should request.*
Appendix G: Student Focus Group Results

Focus groups with students who had participated in AHEC programming were conducted at six of the states that were visited. Students discussed whether the experience of an AHEC rotation/placement changed their plans/attitudes towards their future choice of specialty, population focus and location. They were also asked about what they saw were benefits and difficulties associated with their placements or program. A small sample (N=36) and a variety of types of students participating make it difficult to make broad generalizations about student placements, nonetheless, responses are informative in terms of the breadth of effects that placements have on students. Across focus groups, there was little representation of negative experiences, which may be the result of students being specifically invited by Center staff and asked to volunteer for participation in the focus groups. The majority (50 percent) of the participants were third-year medical students who had completed their AHEC community-based rotations. Eight social work students participated. There were a few students who were participating in joint policy programs, MD/MPH and MSW/MPH, and one participant was a family nurse practitioner. There were six students in from a substance abuse counselor degree program that was funded by AHEC and one student who had participated in an AHEC funded community health worker training program. Four of the focus groups were made up of a single type of student (2 medical, 1 social work, 1 substance abuse counselor); the remaining two focus groups were made up of a mixture of students who had
participated in AHEC programs (See Table 1 for a profile of the focus groups). Questions on the focus group protocol were tailored to the type of student participants, but the overarching themes were the same.

A. Population, Specialty, Location

Generally, the students did not feel that their community-based training experience caused them to change their minds about their specialty choice, practice location or the type of population that they wanted to serve. This is consistent with some prior studies of rural medical practice medical education initiatives (Pathman, 1994; Brooks, 1992). The majority of student participants had come in with an interest in working in an under-served area or with a vulnerable population. But, students did report impacts on other facets of their thinking and there were examples of students modifying choices about aspects of their practice in response to their experience.

For me, I think [value] was a real eye-opener to the indigent population and a population that was mostly Spanish speaking and the importance of being able to communicate with your patient in their own language. For me being Vietnamese, I also speak the language; it has never really crossed my mind seriously to work with the Vietnamese population later on but now after doing it. I kind of think ‘gosh, people really need to be able to communicate with their clinicians.’ So it has kind of nudged toward working with the Vietnamese population later on.” (Third-year medical student)

Several students mentioned that they had interests in working with under-served populations but had not figured out, prior to their placements, how they would integrate it into their practice. They were able to see, during their rotations, how other clinicians chose to do their service (e.g. donating time
as specialists, working part-time, establishing a clinic in the community or in a school).

I don’t want to go into general medicine... And I don’t think that this [placement] changed my opinion of that, but what it did do that was really important. The site I was at... was purely a free clinic and it was very important to have specialists, orthopedists around, cardiologists who would take the patients once we couldn’t do anything for them and we really needed an outsource... It was a struggle to find people to take them, but there were specialists who would take them and see them for free. And so for me I definitely would... down the road if I did get into a specialty that wasn’t ER... I would absolutely try any way I could [to donate time]... I think that’s one thing that’s very important. Just volunteering, contributing your time. (Third-year medical student)

**B. Quality**

Participants were more likely to cite benefits of their AHEC rotations that were related to improving the quality of their practice.

1. **Environment**

Students felt they better understood the social and economic factors that affect their patients’ health and undermine treatment and were better able to modify their treatment plans appropriately to address these issues as a result of their experiences. They also gained a more complete understanding of what community resources are available to their patients and how to negotiate the complexities of health care coverage and public aid.

In a medical school setting you can only see patients in a clinic. …Visiting homes, I am better able to access the social and economic aspects that affect their health care in general... In medical school training if I had no public health training, I would not know what a public health department offers and what resources are available for my patients to access. We are not taught any of that. Being at AHEC and working with this team has really expanded the horizons for me… (Third-year medical student)
You learn a lot about social security, disability, food stamps. You learn all your community resources – we’ve built big resource manuals. Ask any of our peers in our class – do they have a resource manual? No! (MSW student)

I had a patient who was very overweight. I tried to get her to exercise, ‘if you walk 30 minutes a day’- [her response was,] ‘I’m not going to walk in my neighborhood.’ The places they live- they live in neighborhoods where they can’t get out and exercise. So that’s their barrier to getting better. (Third-year medical student)

The AHEC placements that were discussed exposed students to a greater diversity of health care issues, including pathology related to delayed treatment, and participants were able to see how practitioners delivered care when not all of the resources of a tertiary medical center were available.

I found was more creative medicine and more band-aiding because you don’t have the resources to go ‘oh well let’s just check things out with a CT scan.’ You just get a little more adept at your physical exam. So, I just found that you had to be, you were much more challenged because you couldn’t order all the labs you wanted and you couldn’t order every test you wanted. (Third-year medical student)

C. Preceptors

Students distinguished the experience of having a preceptor as having valuable benefits, which were distinct from their other training experiences. The more individualized, and therefore more personal and detailed nature of the training, in addition to the continuity of the teaching relationship, allowed students to learn style and other subtleties of practice.

It was very nice being the only student on the rotation, and the preceptor had autonomy to show me what he thought was important. Everyone in the office spent a lot of time showing me things…it was a great experience. (Third-year medical student)

Susan has facilitated our own sense of style and becoming the clinician we were meant to be. Not a cookie cutter. (MSW student)
The AHEC sites were excellent and equal if not better—intensive full-day time with the same doctor so you really learn approach and get to see patterns in treatment over time; there is continuity with patients. Inpatient you get residents who want to teach but their capabilities vary. (Medical student)

D. Policy

For students in joint policy programs, placements gave a practical, on-the-ground understanding of the impact of policy and opportunities to identify areas that need to be addressed by policy.

We get to see where the problems are, where the cracks are – what’s missing in society. It feeds into policy issues. (MSW/MPH student)

E. Interdisciplinary Training

The interdisciplinary training experience was frequently cited as a key benefit of placements. Collaboration with, exposure to, and education about other health professions enriched the learning experience and changed students’ attitudes about working with other types of health professionals and in teams.

…[At my rotation] I had worked with some physicians but mostly I worked with NPs. And I found that it was a wonderful experience because I hadn’t really [before]. I had a certain opinion about what they did and what their role was and I thought the world of them afterward and what they did. (Third-year medical student)

F. Community

Another benefit widely mentioned as an important attribute of students’ AHEC placements and programs is the quality of the exposure to the communities in which students were placed. Students felt that they gained a truer understanding of the concept of community, and were better able to
identify the needs of communities and the role of health care professionals in meeting those needs as a result of their experiences.

Focus group participants also observed benefits to the community arising from their training programs and community-based placements. A few mentioned bridging distrust of the medical community and institutions, in addition to developing resources from within the community.

I actually got to get out and see them in a non-medical setting which is good to see because I think a lot of times there is a lot of distrust among especially inner city, a lot of distrust of the medical profession in general. I’m generalizing- I did see some of it, but it is good to see them, when I had the white coat off and you’re actually with them as a member of the community, or in their community not as a medical student. That was really nice. Not your typical rotation. (Third-year medical student)

[The substance abuse counselor certificate program] was originally designed because of the Watts riots – wanted to help people of minority stature to get some education in the medical field. The concern of citizens in this area is that we didn’t have enough professionals in the area to make it a better place to live. (Substance abuse counseling student)

Students in the substance abuse counselor certificate program in Los Angeles felt that they were role models for the community because they themselves were recruited from the community.

It’s time for me to show something positive, because I am part of my community. I am the needy, because my community is an object of caricature. I go to school to I can show others that they can do it, can improve themselves. Encourages us to keep up the good work and soon we’ll be out there and show ourselves. (Substance abuse counseling student)

One participant in a different focus group, who had been a student and now is working at the local health department, noted the benefits she observed from having interdisciplinary students training in the health department because
they provide creativity, innovation and manpower that otherwise would not be readily available or economically viable. Students had developed domestic violence protocols as part of their placement.

**G. Challenges and Frustrations**

1. Under-served, Vulnerable and Rural

Many of the difficulties that students faced working with under-served, vulnerable and rural populations are not unique to the AHEC program, but their challenges represent barriers to recruiting and retaining health professionals to serve these populations that need to be address in some fashion. While students working with under-served and vulnerable populations frequently mentioned enjoying working with these particular patient groups, these students also expressed a strong sense of frustration due to the high rates of noncompliance, and the intractability of the socioeconomic barriers to treatment and healthy living that characterize these populations. One AHEC Program curriculum that was discussed specifically prepares students for the frustration they may encounter in these settings, while others rely on training to come informally from the preceptor.

> When I did my community rotation here I was involved in the SEARCH program. That’s good because… we do explore issues about frustration and you learn how deal with it and how you sort of try to circumvent those issues. And even broke it down by different cultural backgrounds which was really helpful. (Third-year medical student)

Students, who were geographically settled near their universities, also had complaints about the distance and time it took to get to their placements.

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2. Funding and Resources

A few students saw shortages of resources in terms of time, space and staffing, but over-all there were few complaints of this nature. Students in one of the focus groups voiced concerns about shortages of preceptors for their particular program and, though they had a good experience during their placement, felt that there was a real possibility of preceptors burning out.

3. Visibility

Students from two different projects mentioned a lack of visibility for their programs and a disconnect between their program and the partner university. However, it is not clear whether this is a widespread issue with other AHEC student programs and placements.

New Dean is opposed to learning in community hospitals and you need him behind AHEC more than he is; he is academic centered and believes that is the universe so you need more administration support. (Medical student) Would like to see more funding and publicity – it’s kind of bad when nobody knows about the school and the program. (Substance abuse counseling student) A lot of people didn’t know about how inspiring the AHEC placement would be and the value of perspective it offered. (MSW student)

H. Summary

It is difficult to conclude from the focus groups whether AHEC rotations and placements have an effect on supply and distribution of primary care health professionals. A more systematic study would be necessary. But student focus group participants largely did not change their choices of specialty, practice location and population focus in response to their placements. However, they did feel that their AHEC experiences had a positive impact on the quality of their
practice. They felt their placements improved their understanding of the community, the impact of their patients’ environment on health and treatment, the role health professionals can fill in the community and the value of interdisciplinary practice. They also found the broader variety of health issues that they were exposed to, and the more individualized training, improved their skills and developed their sense of personal style as practitioners in ways that are unique to the AHEC experience. For the most part, the difficulties that students cited were largely characteristic of problems associated with working with rural and under-served populations, not issues unique to their AHEC programs.
### Table 1: Focus Group Profile

<table>
<thead>
<tr>
<th>State</th>
<th># of Students</th>
<th>Student Type</th>
<th>Placement Characteristics&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>5</td>
<td>(1) MPH</td>
<td>Interdisciplinary; Rural; Site: various- Unidentified; Project Jump Start (basic certificate program for Promoteres- i.e. community health workers)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) MD/MPH</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(1) MSW</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) “Project Jump Start”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) FNP</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>(5) Substance Abuse Counselor (Degree)</td>
<td>Urban; Certificate program started by AHEC was different than community placements as represented by other participants</td>
</tr>
<tr>
<td>A</td>
<td>6</td>
<td>(4) MSW</td>
<td>Interdisciplinary; Site: Community Health Center Specialty: Medical Social Work</td>
</tr>
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<td></td>
<td>(2) MSW/MPH</td>
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</tr>
<tr>
<td>F</td>
<td>6</td>
<td>(6) Third-year Medical</td>
<td>Urban; Site: various- community health centers; urban school-based clinic; half-way house for sex workers Specialty: Family Medicine</td>
</tr>
<tr>
<td>I</td>
<td>6</td>
<td>(6) Third-year Medical</td>
<td>Rural</td>
</tr>
<tr>
<td>G</td>
<td>7</td>
<td>(5) Medical</td>
<td>Rural; Sites: various- Community hospitals; other community placements; Med-Quest (summer health careers camp for high school students) Specialty: Primary Care</td>
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<tr>
<td></td>
<td></td>
<td>(1) MPH/MSW</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) MedQuest</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup>Information was not uniformly available for all sites.

Note: Focus groups were not conducted at three of the site-visited states.