

THE NATIONAL
AHEC
BULLETIN

A Publication of the National AHEC Organization
VOLUME XIX, NUMBER 2
SPRING 2003



Evaluating AHEC:
*Documenting the Impact
of Our Programs*

Evaluating AHEC: Documenting the Impact of Our Programs

In This Issue

Editorial Overview

- Evaluating AHECs: Documenting the Impact of Our Programs** 2
By Thomas Bacon, PhD
- The 2002 Evaluative Study of AHECs** 5
By Thomas Ricketts, PhD; Erin Fraher, MPP; David Hanny, PhD; Amy Roussel, PhD; Renee Schwalberg, MPH; Louis Coccodrilli, MPH

NAO Leadership in Evaluation

- Research And Evaluation: A Critical Strategic Interest For NAO** 3
By Laurie Wylie, MA, ARNP, BC
- The Need for a Deeper Level of Accountability — and How We Might Get There** 10
By Ralph Renger, PhD
- Strategic Directions for Improving Documentation of AHEC/HETC Program Accomplishments** 14
By The NAO Committee on Research and Evaluation (CORE)
- A Standardized Tool (Vendor) for Collecting Data** 16
By the NAO Committee on Research and Evaluation (CORE)

State and Regional Impact

- California HETC: Harvesting the Fruit of our Labors** 18
By Heather Anderson, MPH
- ‘Telling the AHEC Story:’ Community Partnerships in the WWAMI AHEC** 21
By Peter House, MHA; Kelly Hubbell, MS, LPC; Beth Landon, MBA, MHA; Steven Meltzer, PA-C; Frank Newman, PhD; Linda Powell, MS, CPT; Laurie Wylie, MA, ARNP, BC
- Immigrant and Refugee Center, Illinois AHEC: Changing the ‘Legacy’ of Hepatitis B Virus** 26
By Virginia Warren, RN, MPH
- Lowcountry South Carolina AHEC: Students Taste Rural Life in Interdisciplinary Intensive** 28
By Diane M. Kennedy, MS, and Elizabeth A. Erkel, PhD, RN
- The National AHEC Evaluation at a Glance** 30-31
- North Carolina AHEC Program: An Academic Partnership for Advanced Pharmacy Education** 32
By Pamela U. Joyner, EdD, MSPHarm; Tracy E. Thomason, PharmD and Scott R. Smith, MSPH, PhD
- North Carolina AHEC Digital Library** 33
By MaryBeth Schell

Spirit of AHEC

- ‘Where Does It Hurt, Doc? Where They Cut Out the Training** 34
By Fitzhugh Mullan, MD
- East Texas AHEC Staff Aid Columbia Shuttle Disaster Relief** 37

Evaluation Methods from the Field

- NAO Data Sharing Pilot Project: ‘Telling the AHEC Story’ With Cold, Hard Facts** 38
By Brian Sullivan, BBA; Mary Wainwright, MS, RN; Laura Tijerina and George Cohen
- AHEC-Track® ‘The Technology is in Our Grasp’** 40
By Janet A. Head, RN, MS and Michael F. French
- Georgia Statewide AHEC Network: The Statewide Electronic Reporting System** 43
By Detra M. Brown, MS
- East Texas AHEC Program: Comprehensive Data Collection Method** 45
By Laura Tijerina and Mary Wainwright, MS, RN
- Mid-Carolina South Carolina AHEC: Define, Document and Demonstrate: AHEC Delivers** 47
By Cheri C. Plyler

Other Perspectives

- Program Evaluation for Novices** 49
By Ann Chester, PhD; William Brown, PhD; Sherron McKendall, PhD; Nancy P. Moreno, PhD; Connie Phillips, MA, MPH
- Program Evaluation – Principles, Practices and Effectiveness** 52
By Judith Woodruff
- AHEC and HETC Contact Information** 54-60
- Addressing the Needs of the Underserved: Refocusing on AHEC Roots (Call for Articles)** Inside back cover

Evaluating AHEC: Documenting the Impact of Our Programs



Ms. Laurie Wylie

Critical Strategic Interest

NAO President Ms. Laurie Wylie, MA, ARNP, BC, kicks off this edition by urging AHECs and HETCs to “be about the business of creating new ways of capturing outcomes in both qualitative and quantitative measures.” While she acknowledges the importance of “positive attitudes,” she points to the work of NAO’s Committee on Research and Evaluation (CORE) in developing a database to be maintained by NAO and the federal AHEC/HETC program. “CORE provides an excellent start in gathering consistent, longitudinal data. As is the case with many endeavors, we will be successful only if we continue to feed the data into the system.” **Page 3**



Dr. Ralph Renger

Building a Logic Model

Ralph Renger, PhD, Director of Planning and Evaluation for the Arizona AHEC Program and Chair of the NAO Committee on Research and Evaluation (CORE), emphasizes the need for a deeper level of accountability to better capture the impact of AHEC and HETC. He then provides step-by-step guidance to develop “logic models” or visual representations of the problem being addressed by an AHEC or HETC. A key piece of the logic model is identifying *why* the problem exists — the antecedent conditions. In two complex yet noteworthy diagrams, he demonstrates the differences a logic model can make. **Page 10**

The 2002 Evaluative Study of AHEC

The common threads that bind Area Health Education Centers and Health Education and Training Centers are many and strong, according to an evaluative study mandated by Congress and carried out by the Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill. Eight AHECs and one HETC were selected for site visits: AHEC centers and programs in California, Louisiana, Arizona, Illinois, South Florida (Tampa), Maryland, Pennsylvania and Vermont and an HETC in Texas. During the site visits, data were gathered from key informant interviews and focus groups with students and trainees. The study team focused on two critical questions: 1) What are key factors, characteristics, structures and processes employed by successful

AHECs? and (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 major findings of the study listed characteristics of successful AHECs, both short-term and long-term recommendations and comments on the importance of AHEC and HETC partnerships **Page 5**



Dr. Thomas Ricketts

Evaluating AHEC:

Documenting the Impact of Our Programs

By Thomas J. Bacon, Dr PH



Dr. Bacon is Director of the North Carolina AHEC Program and Chair of the AHEC Program Directors Constituency Group. He also is a member of the National AHEC Bulletin Editorial Board and served as co-guest editor for this edition.

The AHEC Program has recognized the importance of evaluating its programs since it was created more than 30 years ago. A series of national evaluations of AHEC, and more recently HETC, have been conducted over the years by both governmental and private agencies under contract with the Federal AHEC Office.

Just as importantly, AHEC Programs at the state and center level have included evaluation as an important component for assessing the performance of their programs and services.

This edition of the *National AHEC Bulletin* focuses on current efforts to evaluate AHEC and HETC at all levels. In an era of increasingly scarce resources, particularly in terms of federal and state funding, it is essential that we develop and maintain regular and rigorous methods for demonstrating the effectiveness of our programs.

We are pleased to include as a central part of this edition a summary of the recently completed national evaluative study of AHEC and HETC. Thomas C. Ricketts, PhD, led a team of researchers in the 15-month study, and their article provides an overview of its findings and recommendations. The importance of this study cannot be overestimated, in that it provides clear evidence of the value of AHEC and HETC Programs, at the same time challenging us to develop more rigorous measures of performance.

Another lead piece, by NAO President Laurie Wylie, speaks to evaluation as a critical strategic interest of the National AHEC Organization. She notes that previous efforts to evaluate the program have frequently fallen short of being able to collect the kind of information required to clearly delineate the contributions of AHECs and HETCs, and points to the importance of the work of the new NAO Committee on Research and Evaluation (CORE).

Illustrating Ms. Wylie's article is a piece by Dr. Ralph Renger, from the Arizona AHEC Program, explaining the need for a more rigorous model for evaluating our programs and outlining

the steps to getting there. Dr. Renger and his colleagues on CORE also have contributed articles on improving documentation of program performance and the data that will be needed in order to achieve this goal.

We are pleased to have contributions in this edition from colleagues across the country who speak to the importance of providing good program outcome data to foundations and other funding agencies, as well as an article on demystifying some of the jargon around program evaluation.

At both the national and state levels, efforts are underway to develop better data collection tools and methodology. Several articles describe data systems that have been developed by individual programs, as well as software packages now in use in states across the country.

Under the heading of State and Regional Impact, we include a series of articles about initiatives in

various AHEC and HETC Programs, which present both quantitative and qualitative data on the value of those programs. These stories once again bring AHEC and HETC to life and highlight some of the students and others who are directly touched by our work.

We are particularly pleased to include a piece from last August's *Washington Post*, by the former Director of the Bureau of Health Professions, Dr. Fitzhugh Mullan. Dr. Mullan, who now precepts medical students at an inner city clinic in Washington, DC, for the AHEC there, speaks eloquently to the importance of AHEC experiences for medical and other health science students as a way to prepare them for careers working with the underserved.

Taken as a whole, this edition presents an impressive collection of current efforts underway to more effectively evaluate AHEC and HETC Programs. These efforts are vitally important at this time when there is renewed emphasis on accountability. The articles in this edition demonstrate progress in this important area, but also show we still have our work cut out for us in the years ahead.

Editorial Overview

Research and Evaluation: A Critical Strategic Interest for NAO

By Laurie Wylie, MA, ARNP, BC

As the National AHEC Organization (NAO) makes the case to restore institutional memory “on the hill” that the “safety-net” programs were originally created as Community Health Centers (CHCs), the National Health Service Corps (NHSC), Area Health Education Centers and subsequently Health Education Centers (AHEC/HETC), we need to be able to demonstrate that we are a critical component of the safety-net programs.

The leadership of the programs understands the interconnectedness, but those who design the budget seem to have lost this vision. We need to refocus their lenses.

The history of AHEC/HETC evaluation began with the 1979 Odegaard report to the Carnegie Council on Policy Studies in Higher Education, *Area Health Education Centers, The Pioneering Years, 1972-1978*. The report noted that the view “that AHECs would improve the quality of health care and contribute to overcoming problems of geographic maldistribution and over specialization appeared to have been largely justified.

“Hard statistical data were not yet available, except to some extent in North Carolina, but based on the interviews, the Odegaard report provided evidence that many residents who received their post-graduate training in AHECs were staying on to practice in the areas of their training. There were also positive attitudes of physicians and other health professionals toward the contributions of AHECs.”¹

In today’s environment of outcome measures as well as determining success in the form of numbers, “positive attitudes” are not impressive measures for continued funding.

In the past five years there have been proponents of using a decrease in the numbers of Health Professions Shortage Area (HPSA) designations to measure success or failure.

In following this line of thought, many programs, including AHEC/HETC, have erroneously been labeled as unsuccessful. The fallacy of using changes in sheer numbers of HPSA designations as a measurement tool abides in the fact that a HPSA designation must

be requested, and is a voluntary process.

If all eligible HPSAs had been so designated in the beginning, then we could have a baseline for measurement. Added to this flaw is the dramatic growth in the past 30 years of programs which require HPSA designation, creating a greater demand for communities to seek a designation.

Challenges AHECs and HETCs face in tracking the effectiveness of their programs are exacerbated by the length of time it takes to change the dynamics of the workforce or the health status of a population.

It takes 12 years of post-secondary education to produce a physician, eight years for a dentist, six years for a nurse practitioner, two to four years for a physician assistant, dental hygienist or registered nurse.

If the particular program being evaluated is in the K-12 system and designed to increase the sheer numbers or the diversity of health professions applicants, it takes even longer to actualize a provider placed in an underserved community. Similarly, the time it takes for changes in behavior to improve the health status of a population is not an overnight event. Although in some cases, changes in an overall populations’ health status can be noted within a year or two, it frequently takes longer. (*The article “The Need for a Greater Accountability” on Page 10 elaborates on these issues*).

Workforce development programs inherently have multiple variables that affect their outcomes, especially given the number of years from program contact to educational completion. Programs to change behaviors which effect health status also take place over a timeline of years, with multiple additional influences. How can we measure the effect of an AHEC or HETC program in these processes?

We need to be about the business of creating new ways of capturing outcomes in both qualitative and quantitative measures. Many of us have voiced disappointment and frustration that the standardized HRSA grant

(Continued on next page)

Ms. Wylie is Executive Director of the Western Washington AHEC (WWAHEC) and President of the National AHEC Organization (NAO).

reporting forms (CPMS/UPR) do not capture what AHEC/HETC does. A recent report states that "...However, at this time, there is little consensus that the CPMS/UPR is informative, useful or accurate across AHECs [/HETCs]. Instead, the AHECs [/ HETCs] need more standardized reporting requirements to make tracking their programs, students and preceptors more of a priority.

"While we need uniform quantitative measurements, there is general agreement that the reporting forms are more suited to the reporting needs of residencies and academic health professions educational institutions, and do not reflect the depth and breadth of the community-based programs of AHEC/HETC."

The NAO established a Committee on Research and Evaluation (CORE) to begin to address the data and information needs of the AHEC/HETC network (see the articles on pages 14 and 16). CORE members have spent the past two years working on the development of a database which will be maintained by NAO and the federal AHEC/HETC program. This will provide us with longitudinal data we can utilize to "make the case" for the successes of AHEC/HETC and for the validity of continued funding support, not only federally, but also in our states. The success of this database requires the continued support of Programs and Centers in assuring that the data is sent to NAO.

Coupled with this effort is the recent *Evaluative Study of the AHEC Program* completed by the Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill.² This study assists in providing a more qualitative review of the characteristics of successful AHECs/HETCs, and the barriers that have impeded progress. This type of qualitative information can assist us in removing some of the barriers which impede the great work that AHECs and HETCs can and do accomplish. (See the article on

Page 5.)

While we are working to establish and maintain sound longitudinal data on AHEC/HETC, we need to continue to maintain our "stories" that qualitatively support the work we do. We need to remember that funders frequently come in one of two types. One type likes outcomes stated in valid, reliable data, the other wants to know the stories of program outcomes. NAO has made research and evaluation one of the primary components of its strategic plan. The CORE committee is working to create a library of useful quantitative and qualitative information for us to use.

Taking time for quantitative evaluation may seem at odds with the altruistic missions of those of us who went into health and human services careers to "do good." These are still noble aspirations. However, in days of decreasing resources, competing interests and decisions made solely on

the basis of numbers, it is imperative that we develop outcomes in the language that funders use. The NAO Committee on Research and Development provides an excellent start in gathering consistent, longitudinal data. As is the case with many endeavors, we will only be successful if we continue to feed the data into the system.

All of us need to make the commitment to keep our data and systems living documents. They will assist us in documenting the need for AHEC/HETC to continue to receive support from federal, state and private funders.

References

¹ *Area Health Education Centers, The Pioneering Years 1972-1978*; A Technical Report for the Carnegie Council on Policy Studies in Higher Education. Odegaard, Charles E., Carnegie Council. Berkeley, CA. 1979.

² *An Evaluative Study of the Area Health Education Centers Program*; A Final Report to the AHEC Branch, Division of State, Community and Public Health, Bureau of Health Professions, HRSA. Cecil G Sheps Center for Health Services Research. University of North Carolina at Chapel Hill. August 2002.

'In days of decreasing resources, competing interests and decisions made solely on the basis of numbers, it is imperative that we develop outcomes in the language that

The 2002 Evaluative Study of AHECs

By Thomas C. Ricketts, PhD; Erin Fraher, MPP; David Hanny, PhD; Amy Roussel, PhD; Renee Schwalberg, MPH; and Louis Coccodrilli, MPH

Background

In 1998, Congress reauthorized 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 directed the Health Resources and Services Administration (HRSA) to: “conduct an evaluative study of 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 underserved areas.”

In May 2001, HRSA’s Bureau of Health Professions AHEC Branch 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 International (RTI), to conduct that study. An evaluative study team was formed under the general guidance of AHEC Branch leadership and direction of senior researchers from HSR Inc., RTI and UNC.

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. Data were gathered in site visits which included key informant interviews and focus groups with students and trainees. The study team analyzed secondary data describing the programs including the recently established BHP Comprehensive Performance Management System — Uniform Performance Reporting (CPMS/UPR) system.

Dr. Ricketts is Director of the Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill.

Ms. Fraher is also with the Sheps Center at the University of North Carolina at Chapel Hill.

Mr. Coccodrilli is the Branch Chief and Dr. Hanny is the Statistician for the AHEC Branch, Bureau of Health Professions, Health Resources and Sciences Administration.

Dr. Roussel is with The Research Triangle Institute.

Ms. Schwalberg is with HSR, Inc.

Major Findings: Characteristics of Successful AHECs

Leadership

Although most AHECs are mature organizations and there are sufficiently disseminated templates for their administration and operation, their relative success remains dependent upon strong individual leadership.

Successful AHECs were not overly bureaucratic organizations but were led by visionary individuals who championed their cause. Where these strong leaders retired or left the programs and centers, the continued success depended on bringing in new leaders who developed their own identity.

Organization

There are multiple formal organizational options for AHECs but, in general, AHECs,

especially the centers, that had an autonomous organizational identity as a not-for-profit, board-directed corporation, were better able to take advantage of opportunities and act on behalf of their community partners.

Successful AHECs were able to make potentially competing institutions and disciplines collaborate. In states where there are multiple medical schools, the degree to which the schools can accept a common goal for AHEC and cede some degree of autonomy allows the AHECs to work more effectively.

AHECs with more organizational flexibility were better able to handle transitions in funding from federal to state and other grant sources.

(Continued on next page)

Mission

Funding transitions often created a change in the program content of some AHECs (the study team termed this “mission creep”). AHECs were often seen by policy makers (at both State and Federal levels) as the ideal system for new program implementation or new ventures, even when that program is not clearly covered by the AHEC Mission. For example, AHEC networks have been viewed as ideal mechanisms to implement population-focused health promotion programs or to assist in the implementation of expanded health insurance coverage for children, e.g., the State Children’s Health Insurance Program. These ventures often represented mechanisms for gathering financial support but may have deflected the programs from a complete focus on community-based interdisciplinary and multidisciplinary health professions education.

Funding Sources

Recurring state funding is very important to program growth and stability. Programs with established appropriations or a regular flow of funds from state government sources were more likely to be larger in size and involved more effectively in overall health professions workforce education for their states. Such funding streams were accompanied by carefully built and maintained relationships with state legislators and agency leaders as well as community leaders.

Workforce Shortages

During the period of the study, the nursing and allied health workforce shortages were gaining a high place on the national policy agenda. The AHECs have as part of their mission the responsibility to prevent or address these shortages, but it is not clear to the programs themselves what their roles are in responding to these immediate issues. The AHECs are, in many instances, the first entity

to mount some response, but they are not, with a few exceptions, the first organization enlisted to address major shortages or asked to lead a coordinated statewide response. An indicator of a “successful” AHEC would be one that was able to anticipate workforce shortages and to be able to respond with a coordinated response that addressed and ameliorated the causes.

Policy Priorities

AHECs have responded quickly to issues identified by the federal government as key to improving the national health workforce, including: increasing awareness of health careers among school children; improving the diversity of the workforce and mounting a response to the continuing education needs of practicing health professionals. Data showed that the AHEC programs and centers were quickly able to develop educational programs for a wide range of professions on how to respond to the anthrax and bioterror threats.

In general, we found AHECs less successful in developing programs that explicitly emphasized quality improvement in health care. The programs had embedded quality improvements within regular continuing education programs that were directed to individual practitioners, but less often to system and population-based mechanisms for quality improvement. Another measure of success would be the ability of AHEC to address all of these issues quickly and comprehensively, assessing the degree to which they were able to contact and educate targeted practitioners and professionals.

Interdisciplinary Teaching

Interdisciplinary health professions education remains difficult to initiate and to sustain. The centripetal force of the disciplines continues to require additional effort to overcome. The degree to which programs and centers are able to keep together the coalitions that are necessary to mount multi- and

‘An indicator of a “successful” AHEC would be one that was able to anticipate workforce shortages and to be able to respond with a coordinated response that addressed and ameliorated the causes.’

(Continued on next page)

The 2002 Evaluative Study

(Continued)

interdisciplinary training and education efforts is an indicator of their success.

Centers and Programs

The centers are clearly different from the programs in mission, structure and relationships. The centers are more dependent upon and responsive to community organizations and practitioners, while the programs are more responsive to their host institutions and centralized agencies. There are important exceptions where regional centers have developed strong constituencies in legislatures or agencies or with academic health centers. In parallel, there are AHEC program offices that are able to react quickly to local needs and demands for specific program activities.

Programs and centers share a need for a common set of skills including grant development, needs assessment, planning, implementation, evaluation, general project budgeting, accounting, grants management and pedagogical capacity for community-based health professions education. The centers and programs that were most successful included these skills and were able to maintain open and active lines of communication in their networks. Telecommunications and technology-based systems were not sufficient to sustain effective communication; this required regular face-to-face visits and contacts.

Measurement of Productivity

The programs and centers expressed some concern over the recent expanded emphasis on the quantitative measures of accountability required by the federal government. There was broad acceptance of the need to improve this type of reporting, but many respondents felt that it was not necessarily going to provide a fair picture of their outputs and impacts. We could conclude that the CPMS/UPR system is a “work in progress.” The more successful AHECs are those that regularly collect process and impact data and use it for planning, evaluation and project design within their state or within the

AHEC service regions of their states. The documentary evidence indicates that this occurs with some regularity in a few AHEC programs and centers.

Special Role of AHECs

AHECs were often the only available entity to coordinate federal community-based activities, especially for safety net health care delivery programs. More successful AHECs included strong state agency and caregiver partners to support or supplement federally-funded initiatives. These initiatives often diverged from the core mission of the AHECs and involved direct consumer or patient education, program enrollment and policy awareness.

There were also indirect uses of the AHEC network to implement changes in direct patient care beyond the scope of residency or in-service training. This “neutral” and

adaptable character and the extensive networks in which they were embedded meant that AHECs were often looked to by states as the vehicle to “roll out” new programs. This was the case in larger, more established AHEC programs.

The AHEC Brand

Some informants suggested there was a low level of awareness (outside of the programs and centers) of the core AHEC mission that, in turn, was due to a “brand” or “labeling” problem. There was no consensus on what that “brand” identity should be. The interorganizational character and mixed-product nature of their output defied the easy distillation of AHEC work into a “brand” or single slogan. At the same time, a brand awareness was necessary to securing ongoing funding in states.

Although there was no consensus on a brand or slogan, efforts were made by AHEC leaders at the federal office, program and center levels to organize the range of AHEC activities and training programs under three major foci: **Distribution** (health professions student and

‘AHECs were often the only available entity to coordinate inter-federal community-based activities, especially for safety net health care delivery programs.’

(Continued on Page 9)

Recommendations

The study team was asked to produce a series of recommendations based on its members' overall assessment of the program. Those are summarized below:

- ◆ To assist in ongoing assessment of AHECs, the programs, centers, sponsors and partners should develop program and project “logics” that track activities to outcomes; those logics should be linked closely to CPMS/UPR data.
- ◆ The agency should clearly define the differences between HETCs and AHECs and integrate activities leading to efficiencies and separate tasks where appropriate.
- ◆ AHEC health professions education pipeline programs should fit more closely with community health care needs.
- ◆ AHECs should integrate more with safety net health care delivery systems (e.g., Community/Migrant Health Centers and National Health Service Corps sites) to further the mission of improving access in community settings.
- ◆ Programs and centers should develop evidence-based needs assessment processes that relate to their program areas. These should be based on locally relevant and updated data. Data systems should either be developed by AHECs to support this or AHECs should provide leadership in their development. Using these data, programs should become more involved in health workforce planning and the projection of needs for their areas.
- ◆ The national office and the programs should increase their emphasis on *interdisciplinary* community-based training.
- ◆ The AHEC Branch and the AHECs themselves should promulgate a broad definition of diversity to accommodate regional differences; disparities in literacy as well as racial and ethnic access to health careers should be recognized as being relevant to specific AHECs.
- ◆ The AHECs should carefully and continually assess the benefits of technologies; (more traditional technologies such as library and information sharing services are often a “silent” but essential benefit for their communities.)

Immediate or short-term actions that the AHEC Branch in HRSA could initiate include:

- ◆ The development of an AHEC “toolkit” which could be used to develop a “brand” identity. Providing the “tools” for community-based health professions education could be integrated into that brand awareness.
- ◆ Federal resources supporting safety net programs should be earmarked for the creation of formal partnerships with AHECs.
- ◆ The AHEC Branch should develop rules for consortia to qualify for AHEC funding.
- ◆ The AHEC Branch should seek to develop consistency in data collection in the CPMS/UPR process and develop a set of “benchmarks.”

(Continued on next page)

The 2002 Evaluative Study

(Continued from Page 7)

preceptor training at community-based sites); **Diversity** (health careers enhancement programs for K-12 students); and **Quality** (continuing education programs on topics pertinent to local health providers). These major program areas were described as focused efforts to improve the health workforce and ultimately increase access to care for underserved populations. A brand identity could be built around these key concepts if they were closely associated with health workforce preparation.

The AHEC/HETC Partnership Role Does Make a Difference

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. These are complex interorganizational entities that mix history, local conditions and national priorities in unique combinations to achieve social and professional change.

AHECs 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 underserved 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 professions students.

There was clear evidence from the focus groups and from interviews with key players in the health professions training field that “brand-awareness” of AHECs and their mission remains relatively low at local, state and national levels.

AHECs are clearly interorganizational structures, with the programs or centers bringing together many disparate entities. These interorganizations are heavily dependent upon a complex web of relationships and agreements. To be successful, AHECs must manage the varying degrees of interdependency and commitment that exist among the elements that make up health professions education and which provide services to communities with shortages of health professionals.

AHECs must work at the community level to develop comprehensive programs to address local educational and health care needs through activities and services that are delivered there. At the same time, they must work with and within centralized institutions (universities and health professions schools) to fit in with existing curricula and training policies.

‘The success of the AHECs is dependent upon their development of viable networks as well how many and what types of health professionals they train.’

A key finding is that partnerships do make a difference and the partnerships fostered using the AHEC model have been mutually beneficial to the parties involved. That benefit explains the persistence of the inherently changeable interorganizational form called AHEC.

The success of the AHECs is dependent upon their development of viable networks as well how many and what

types of health professionals they train.

It will remain challenging to measure the productivity of AHEC education and training programs as well as the effectiveness of the networks they create to do the training. AHEC alliances are difficult to account for in any meaningful way, but they are necessary to meet the primary goal of the AHEC program which is the production of an effective, appropriate health care workforce for the nation.

The Need for a Deeper Level of Accountability — and How We Might Get There

By Ralph Renger, PhD

The need for accountability is the driving force behind the President's Management Agenda, the Government Performance Results Act (GPRA-P.L. 103-62), and the Performance and Assessment Rating Tool (PART).

Traditionally, accountability within AHEC has been fairly narrow in scope, limited to documenting the delivery of service. The number of CE/CME events provided, the number of students attending a health career event and the demographic characteristics of students placed in a rural or underserved rotation are just a few examples of the details AHECs are required to count in order to document the delivery of service.

There is consensus that better evaluation is needed; some means that better capture the impact AHEC. But what does that mean and how do we achieve that goal?

The answer lies in one of the recommendations made by Thomas C. Ricketts, PhD, during his report to NAO on the Evaluative Study: the development of program logics or logic models. (*See The 2002 Evaluative Study of AHECs on Page 5.*)

The logic model is a visual representation of the problem being addressed (e.g., enrollment in health professions training) and the *why* this problem exists. The reasons *why* can be thought of as root causes or antecedent conditions.

It is logical that the services AHEC provides should be focused on changing the antecedent conditions of a problem. If successful, this will lead to a domino effect that will eventually contribute to producing change in the problem.

For example, if perceptions of personal isolation affect a health professional's choice to practice in a rural or underserved area, then the intervention strategy should include components that attempt to change perceptions of personal isolation. The logic is that if the service can affect change in perceptions of personal isolation, then the health professional is more likely to choose to practice in a rural or underserved area. Given its importance as the foundation of a better process, how do we develop a logic model?

In a recent article published in the American Journal of Evaluation (Renger & Titcomb, 2002) my colleague and I detail how to develop a logic model. A summary of the process described in that article is now presented.

Step 1: Building a Logic Model: Making Antecedent Conditions Explicit

The process begins by meeting with experts, both providers and recipients of services. Experts are asked to share *why* they believe there is a particular problem (i.e., workforce shortage, retention issues, etc.). Often developing a stream of logic (the full chain of events that precedes a problem) requires that *why* be asked several times. After consulting with numerous experts, an initial, visual representation of the antecedent conditions is developed.

A literature review is then conducted to determine the available research to support the linkages identified by experts. In most cases there is strong research support for the importance of antecedent conditions identified by experts. However, in some cases, as a result of the literature review, the inclusion of an antecedent condition is brought into question or new antecedent conditions that experts failed to identify are added to the logic model.

The result of this process as applied to understanding issues related to increasing enrollment of students in health career professions in Arizona is illustrated in Figure 1 (*see next page*).

At first glance Figure 1 appears overwhelming. The reader is encouraged to take a moment to understand how to read the logic model. Starting from the left side of the diagram, use a series of "if-then" statements to understand the logic model. For example, if there is a lack of role models, then minority students may believe that the cultural transition will be difficult. If the student believes that the cultural transition is difficult, he or she may not apply for a health career profession. If students do not apply, then the enrollment levels will be low.

From Figure 1 it is clear that there are many antecedent conditions that affect a

(Continued on next page)

Dr. Renger is Director of Planning and Evaluation for the Arizona AHEC Program and Chair of the NAO Committee on Research and Evaluation (CORE).

The Need for Accountability

(Continued)

student's decision to enroll in a health career profession. However, as NAO Immediate Past President Charles Huntington, PA, MPH, in his testimony before the Advisory Committee on Interdisciplinary, Community-Based Linkages in June 2002 noted, it is unreasonable to think that AHEC has control over many of these antecedent conditions. Huntington rightly noted that the challenge is to identify those antecedent conditions over which AHEC has direct control and document the success of the services provided by AHEC at changing them. But how does AHEC meet this challenge?

Step 2: Ensuring that components of the services AHEC provides target the antecedent conditions over which AHEC has control

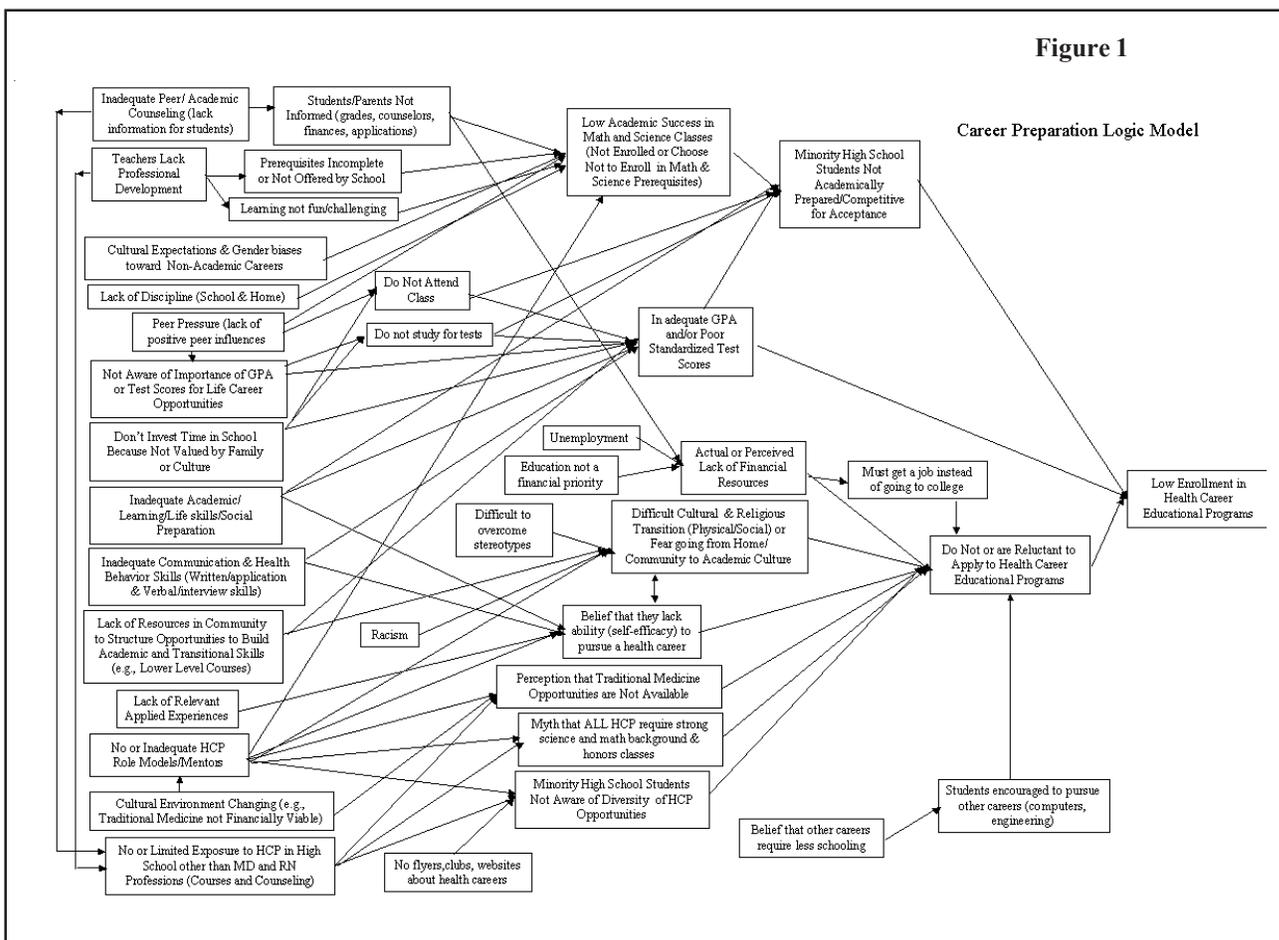
It is suggested that a set of decision criteria, posed as a series of questions, can assist in selecting the antecedent conditions over which we have control.

The result of applying these decision

criteria in Arizona is shown in Figure 2. The shaded boxes are those that met all the decision criteria as assessed by AHEC staff, program coordinators and program directors. While it is necessary to demonstrate how AHEC services target the antecedent conditions over which AHEC has control, it is not necessary that the services provided by AHEC target all the shaded boxes in Figure 2 (see page 13).

Figure 2 also helps to illustrate another very important point. The number of shaded boxes is only a small subset of the antecedent conditions that must be affected to produce change in the outcome — in this case enrollment in health career professions. It is much easier to see by looking at Figure 2 that changing the long-term outcome, or goal (i.e., the last box on the right) is dependent on several factors over which AHEC has no control.

(Continued on next page)



The Need for Accountability

(Continued)

Given that so many factors beyond the control of AHEC affect the long-term outcome, the wisdom of defining program success in terms of changing this long-term outcome and in investing valuable resources needed to track this change is questioned.

Figure 2 is also a useful tool in helping identify other partners, namely those who have expertise and resources to target the non-shaded boxes in Figure 2. Identification of such partners is another major force behind GPRA and one that the process described here can facilitate.

Step 2 also aids in avoiding activity traps — strategies that cannot be linked in any meaningful way to changing antecedent conditions of the problem. Ways of improving the traditional AHEC services to include components that specifically target antecedent conditions identified in the logic model must be examined. It is important to develop detailed documentation of how each component of services that AHEC provides targets an antecedent condition, as well as how the service is to be delivered. This documentation must provide the detail necessary for those unfamiliar with what AHEC does to replicate our services. From an evaluation perspective, being clear about the antecedent conditions being targeted and being able to replicate the delivery of a service allows data from across sites to be combined. This is especially important because the services provided by any one center typically do not target a sample large enough to conduct statistical analyses.

Step 3: Building an evaluation plan

As a result of Step 1, it becomes clear what AHEC is doing and why. As a result of Step 2, how AHEC intends to impact the problem is clear. Knowing what to measure (i.e., the antecedent conditions over which we have control) and the proposed plan to change these antecedent conditions (i.e., the detailed intervention/program documentation), attention can now be directed to developing an evaluation plan.

Outcome evaluation refers to an assessment of conditions that take the longest to change. Many of the things currently counted for Federal reporting requirements

relate to assessing long-term change. However, as argued above, the likelihood of seeing change in the long-term outcomes, based on AHEC work alone, is small.

Impact evaluation refers to an assessment of change in the antecedent conditions services target. With a few exceptions, this aspect of evaluation is almost completely lacking in AHEC. With respect to answering the question “What difference did AHEC make?” it is the impact evaluation that will provide the answers sought because it assesses those antecedent conditions over which AHEC has direct control to change via the services provided. These impacts are what should be shared with policy makers in helping redefine how the success of AHEC should be judged.

It is important not to assume that all antecedent conditions must be measured. To do so would be far too cumbersome and defeat one of the purposes of evaluation, which is to provide timely information upon which program decisions can be made.

Process evaluation refers to measures that are used to help answer the question: Was the program delivered as intended? Many of the activities AHEC counts are a form of process measures, but, to say with confidence that a program was delivered according to plan, more is needed than simply counts of the number of people or events.

Process measures are derived from the detailed documentation developed in Step 2. They are often in the form of a checklist both to ensure that the planned content was delivered in its entirety and to include feedback from participants about the quality of the program. These sources of information are important in making recommendations for program improvements.

Process measures are critical in interpreting results from the impact and outcome evaluation. The course of action one takes after learning that the service was unsuccessful in making an impact depends on the results of the process evaluation. If it is learned that the service was delivered according

(Continued on next page)

The Need for Accountability

(Continued)

to plan, then the proper course of action is to revamp the approach or drop the service. If it is learned that there were problems in the delivery of the service, then making significant changes or dropping the service may be

premature. It may be more prudent in that situation to focus effort on improving the implementation of the service so that a fair assessment of its impact can be conducted.

Summary

Recently the Health Professions Programs received an unsatisfactory or “stoplight” rating from the U.S. Office of Management and Budget (OMB). In the report it was concluded that Health Professions Programs:

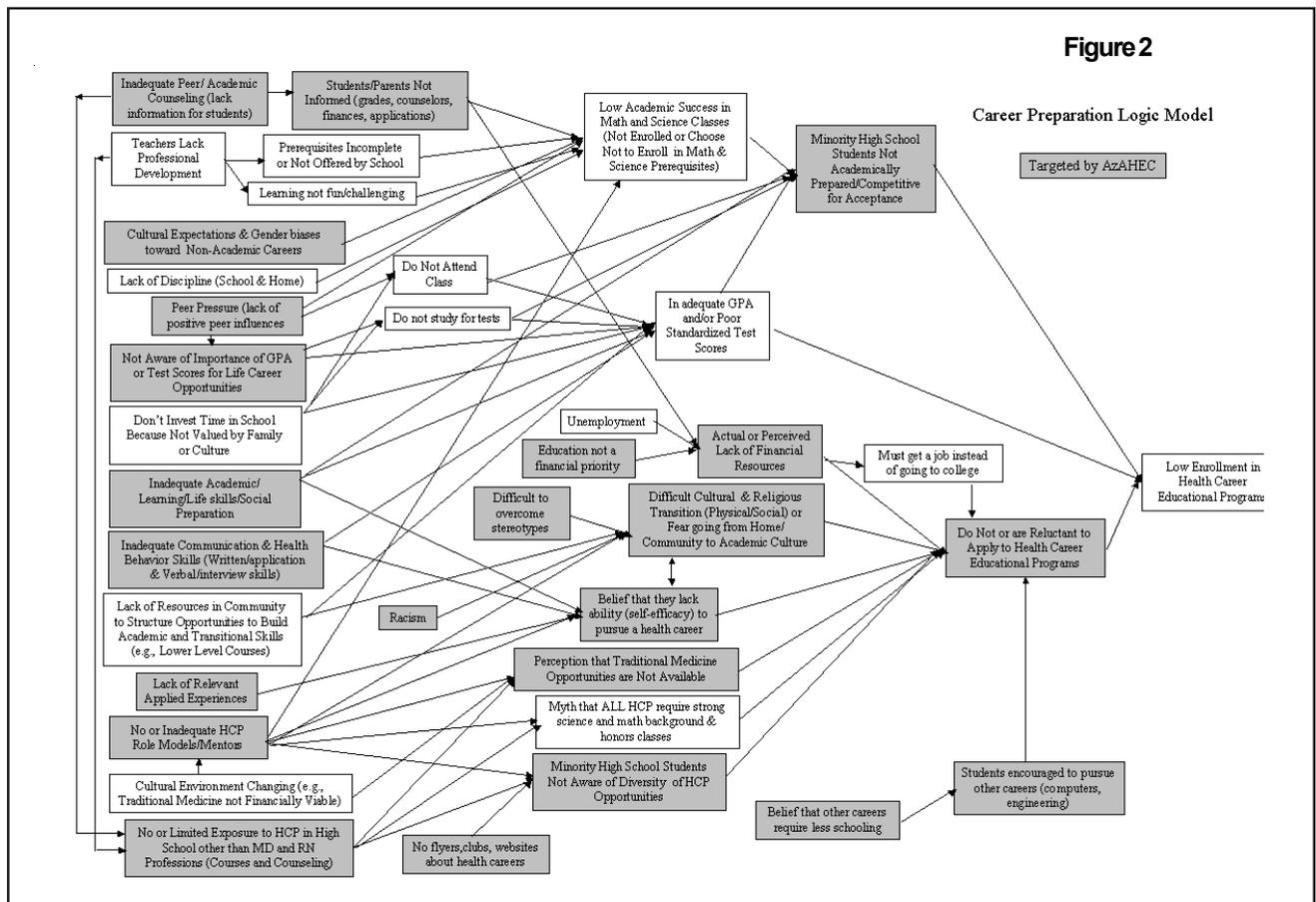
1. Lack clear purpose
2. Need improved strategic planning
3. Have adequate program management and
4. Severely lack program results

Building a Logic Model for Evaluation

Step 1 of the process provides a visual map that makes our understanding of the problem and its antecedent conditions explicit (i.e., clear purpose).

Step 2 of the process ensures that AHEC strategies target antecedent conditions over which AHEC has control, identifies gaps and redundancies in services and creates realistic expectations about expected changes in longer-term outcomes (i.e., facilitate strategic planning and program management).

Step 3, including process, impact and outcome evaluation is the final phase in helping AHEC and the Health Professions Program “get to green” (i.e., better program results).



Strategic Directions for Improving Documentation of AHEC/HETC Program Accomplishments

By The NAO Committee on Research and Evaluation (CORE)

In January 2001, at Breckenridge, Colorado, the National AHEC Organization developed a strategic plan. Focus Area Four of the plan relates to research, information and issues definition. The goal of this focus area is to develop a base of information and analysis to support the NAO mission and strategies. Nine strategies — which included establishment of a Committee On Research and Evaluation (CORE) — were proposed as a means of achieving this goal (*see box below*). The purpose of this report is to make others in AHEC aware of the CORE, the strategies on which it is working and the progress made in each of the areas to-date.

Although work on CORE-related projects moved forward during the first 18 months of the strategic plan, the first official meeting of the CORE was on August 13, 2002. The initial CORE consisted of five members:

Ralph Renger, Arizona AHEC, Chair; Timothy Weyers, Missouri AHEC; Janet Head, Kirksville College of Medicine, Missouri AHEC; Mary Wainwright, Deputy Director of East Texas AHEC; Tom Bacon, North Carolina AHEC Program Director; Nancy Sugden, of Wisconsin representing HETC; and Susan Dollar. The committee met bi-weekly via teleconference for the first two months and held its first face-to-face meeting at the NAO Program Directors Constituency Group meeting in October 2002. The CORE continues to meet every two weeks in an effort to expedite completion of its mandate.

After examining the NAO strategic plan the CORE decided to focus initial efforts on strategies 2, 3 and 8. What follows is an update on the progress made in each of these three areas.

Strategy 2: Explore a standardized tool (vendor) for collecting data.

Critical to any efforts at comprehensive evaluation and participant tracking are good tools for data collection and management. The federal reporting tables define a common set of measures that must be collected by all AHECs. The concept of employing a standardized data collection tool across AHECs is appealing (*see "A Standardized Tool [Vendor] for Collecting Data" on page 16*). Additionally, from a fiscal point of view, the cost to the national AHEC program of state-by-state and program-by-program data system development is extremely high and the subsequent commitment of programs to those systems for better or worse is extremely strong.

Tracking program participants is clearly an issue facing AHECs across the country.

(Continued on next page)

The Nine CORE Strategies

1. Establish a Committee on Research and Evaluation as a Standing Committee of NAO.
2. Explore a standardized tool (vendor) for collecting data.
3. Collect, maintain, and analyze data for the six federal reporting tables.
4. Document and analyze changing community training demands on preceptors as it influences workforce development.
5. Profile program affiliations/affiliates and training resources.
6. Establish a profile (database) of staff/board members affiliated with NAO.
7. Document and disseminate information on multi-centered/program "special initiatives".
8. Profile what AHEC/HETC program offices' need to know versus what they want.
9. Monitor federal workforce data collection activities – serve as a clearing house for related information.

Strategic Directions

(Continued)

During the past 15 years, various data systems have been developed internally or in partnership with commercial vendors by AHECs around the country in order to respond to increasing local, state and federal demands for documentation of efficacy. The CORE has begun to review the systems in existence. (See the following articles for description of several systems already in use.) The Committee will have to grapple with the challenges of 1) pre-existing software and other data collection and management systems; 2) previous financial investment in those systems; 3) identifying systems that work; and 4) determining the relative value of pursuing a standardized tool.

The CORE members also agreed that any effort at long-term tracking will require human resources in addition to good data and follow-up. It is doubtful that any system could be developed that circumvents the need for an investment in human resources to ensure data on participants remain current. At a more fundamental level is the question about the utility of tracking the outcomes mandated in the federal reports. As discussed previously in *The Need for a Deeper Level of Accountability* (see page 10), it is unlikely that changes in these outcomes can be demonstrated to be the result of AHEC investments and efforts alone.

Strategy 3: Collect, maintain and analyze data for the six federal reporting tables.

Another challenge facing NAO is reliably integrating information for federal reporting purposes across all AHECs. In theory, a standardized data collection tool would meet this need. However, implementing a standardized data collection tool is most easily accomplished at the beginning of a program before considerable local investments are made to develop a data system.

The difficulty is that many AHECs have been operating for a decade or more and have made significant investments in the purchase or development of data collection tools. There are several different and idiosyncratic data collection tools currently in the field. Therefore, the challenge is to reliably integrate data gathered using different data collection tools from across the nation.

The East Texas AHEC was contracted by

NAO to complete the first stage of the project that entailed developing and beta testing a web-based database for collecting data no longer collected by the HRSA Bureau of Health Professions but important to NAO. CORE members assisted in the beta test by providing datasets from their respective AHECs and providing feedback about the type of analyses that might be useful for other AHECs to view.

The results of this first stage were summarized in a report entitled Area Health Education Center (AHEC) Constituency Data Sharing Project Final Report - Stage 1, submitted by East Texas AHEC on September 18, 2002, and presented to the NAO Program Director's constituency group on October 31, 2002, in Washington, D.C. Having successfully completed this stage, the CORE is now working with the East Texas AHEC to develop an effective process for submitting data electronically to a web site.

The first stage of the project demonstrated that data can be combined across AHEC sites to produce a reliable, overall summary for the NAO and Congress. Another challenge, however, relates to the validity of that information. The CORE recognizes that there is considerable variation in the definitions used to complete the information for the federal reports. For example, the definition of "disadvantaged," "minority," "rural," "underserved," and so forth varies not only across AHECs, but between centers within an AHEC too.

The CORE has, therefore, recommended that the next stages in collecting, analyzing and maintaining data for the six federal reporting tables will focus on the development and endorsement of a common set of definitions for the reporting categories found in the six tables.

Strategy 8: Profile what AHEC/HETC program offices need to know versus what they want.

There is a consensus that the data reported in the federal tables do not capture the breadth and depth of what AHECs and HETCs do. At the October 2002 Program Directors meeting in Washington, D.C., several ideas surfaced regarding the type of data that

(Continued on next page)

Strategic Directions

(Continued)

should be collected. Limited resources make it impossible to gather data on what every AHEC or HETC wants to know.

Further, NAO does not have a systematic way to decide what data to collect and why. Therefore, another charge of the CORE is to develop a big picture overview of AHEC data needs and establish a protocol for assessment of recurring data needs. The reader is referred to *Research And Evaluation: A Critical*

Strategic Interest For NAO (see page 3) that details such an approach. This approach is consistent with the recommendation to begin using program logics as a foundation to determine those things for which AHEC has control and should be held accountable. (See *the Rickets article on page 5.*) As a starting point for this work, the CORE plans to conduct pre-conference workshops at the August 2003 NAO Leadership Conference for other AHECs interested in learning about this approach.

Summary

The NAO strategic plan called for the formation of a Committee On Research and Evaluation (CORE) to develop and implement eight strategies. To date the CORE has dedicated resources to three of these eight strategies. It can be argued that the three areas on which the CORE has begun working are also the most difficult. Fortunately many of the remaining five strategies are relatively straightforward conceptually and a preliminary analysis suggests that their accomplishment may not be as resource intensive.

The CORE welcomes ideas and suggestions from the AHEC/HETC community on areas for further investigation and research. It is important for all those in AHEC and HETC to realize that the outcomes being tracked are not set in stone and were initially established as a starting point toward improving accountability. It is within the spirit of the Government Performance Results Act (GPRA) to recognize limitations and to work with our Federal partners to constantly strive toward improving the level of accountability and quality of data that can assist legislatures in their decision-making.

A Standardized Tool (Vendor) for Collecting Data

By the NAO Committee on Research and Evaluation (CORE)

The importance of having standardized AHEC/HETC data collection tools was expressed in the previous article. In theory, if all AHECs/HETCs used the same data collection tool, then integration of information would be relatively simple. In the absence of a common data collection tool, the *accurate* integration of information becomes more complicated because the databases underlying each data collection tool are different. Merging of information is prone to errors and a loss of data integrity.

For a variety of reasons the committee recommends that NAO not invest additional resources at this time to develop a standardized tool to collect data. The various data systems developed internally or in partnership with a

commercial vendor by AHECs/HETCs around the country to respond to increasing local, state and federal demands for measuring program outcomes.

These represent a substantial investment by individual programs and it is not cost-effective at this point in AHEC history to make additional investments in a tool that would essentially be redundant with those already developed and instituted locally. Further, the development of a standardized tool does not address the necessary prerequisite that required data be collected and entered. New programs and those who are looking for improved data management capability, may be interested in the following suggestions.

(Continued on next page)

A Standardized Tool

(Continued)

The committee does believe that the opportunity to develop and employ a standardized data collection tool may surface soon at a national level. Perhaps as new outcomes are defined it will be possible to package the collecting of these “standardized outcomes” together with a “standardized tool.” The development and successful implementation of any such tool must be accompanied with an educational campaign and/or perhaps an incentive-based system to

ensure that data is indeed collected and entered.

To assist future discussions and decisions about the merit and worth of standardized data collection tools, the committee felt it prudent to suggest a list of criteria to assist decision-making. The following list of criteria was developed in consultation with experts in information technology, but is not meant to be exhaustive.

Criteria for Evaluating Data Collection Tools

Flexibility: The nature and type of data that must be collected will change over time. It should be easy to modify the new system to include additional functions, small changes and so forth to meet not only changing federal demands but also local data collection needs. Does the original developer have to make these changes and, if so, what are the costs and delays associated with instituting these changes?

Scalability: It is reasonable to predict that over time there will be opportunities to grow or the need to contract. How easily can a new center be added or dropped without a major overhaul?

Portability: Some systems have extremely specific demands for hardware, connection speed and support. Some centers and/or program offices may not have the resources necessary to meet these demands. Another issue to consider is that different platforms are used throughout the nation. Therefore, it is important that the system can run on multiple platforms such as Unix, Windows or Mac.

Overhead: Each system has cost associated with upkeep and maintenance. The cost of necessary staff and capital (e.g., servers) must be considered. For example, is the system going to take a full-time tech to run or is it more automated?

Centralization: Centralization refers to where data is being stored. Some systems require that each center enter data into a local database system that resides locally, in the center office. A program or central office must then compile this information. These are not centralized. Such systems are more costly for a number of reasons, including having to make the same update numerous times to each system (also prone to errors) and the hardwiring over a LAN. Web access seems to be a solution

to these shortcomings.

Customizable: Some systems do not allow the opportunity for local branding. The system should enable local users to substitute their logos to create a sense of ownership.

Secure: Assuring the security and confidentiality of collected data is critical to obtaining IRB approval. How safe is the information? Are their easy/reliable backups?

User Experience (Interface): One limiting factor in the success of a standardized data collection tool is the entering of collected data. Almost all systems claim to be user-friendly. However, there should be some documentation about how simple it is to use system.

Data Export: Often there is a need to export the database underlying the data collection tool to a statistical software package capable of more sophisticated analyses. For example, it should be possible to export the database into statistical packages such as SPSS, SAS and SYSTAT.

Longitudinal Data Storage: The ability to assess change requires that multiple events about a person be stored. Some systems appear to do this, but in fact new events overwrite previously entered events. Further, to facilitate the analysis the ability to export multiple events in vertical format (i.e., in separate columns) as opposed to horizontal format (i.e., each event is a row, or stacked) is necessary.

Speed: In both a web interface and a traditional database, if the system speed is not adequate users will be less compliant in using the system. In the Internet industry world, speed is the number one criteria for usage. A hands-on-test on the user’s computer of how fast the system responds would be advisable.

California HETC: Harvesting the Fruit of our Labors

By Heather Anderson, MPH

Legislation for the Health Education and Training Centers Program (HETC) was enacted in 1990. Developed as a companion program to the AHEC, the purpose of the HETC program is to address the health care needs of underserved populations in border and non-border areas of the country. Unlike AHECs, HETCs are not required to collaborate with a medical school to accomplish programmatic goals, but can partner directly with community-based agencies to make an impact on public health issues plaguing the local population. HETCs target the most fragile populations within a community, training health professions students to identify the health care needs of those populations, working with community members to address these needs and ultimately improving the community's health.

The successes of HETC are many. Steady funding within the five Border States has allowed a stable, recognized infrastructure to be developed and has facilitated collaboration for cross-border health education training activities, many of which have become self-sustaining. Many health professions students trained by an HETC have gone on to work in community health centers or in underserved communities.



Ms. Anderson is the Program Manager for the California AHEC and HETC Programs and a member of the National AHEC Bulletin Editorial Board. Ms. Anderson and Dr. Thomas Bacon were guest editors for this edition of the Bulletin.

California HETC

The HETC program in California was modeled after an earlier California AHEC designed initiative entitled the Hispanic Medical Education and Training Program (HISMET) that laid the groundwork for the Border HETC Program. One of the initial successes of the HISMET was the establishment of a Family Practice Residency Training Program in East Los Angeles at the White Memorial Medical Center.

This community-based and community-driven program focused on family practice training to provide medical residents with an understanding of and desire to meet the needs of the rapidly growing Hispanic population in East Los Angeles.

Ten years later, the White Memorial Program is able to boast that 75 percent of its graduates are Latino, 92 percent practice in underserved sites and 52 percent have become faculty members in an underserved area. Faculty members are involved in mentoring activities with local middle schools and high schools and

community service is an integral part of the training program.

Jovenes por la Salud

Faculty from the White Memorial program work with the Multicultural AHEC on *Jovenes por la Salud*, an HETC-funded program in East Los Angeles. This project works with disadvantaged, predominantly Latino students from Francisco Bravo Medical magnet school, Garfield High School (where Jaime Escalante of the movie "Stand and Deliver" taught) and several middle schools and high schools where students participate in learning experiences combining academics and health professions careers.

The *Jovenes* program began in 1994 to address the dearth of Latinos entering health professions in California, where currently four percent of the physician workforce and less than five percent of the nursing workforce are Latino.

The *Jovenes* program has graduated more than 300 Latino students; nine of the first

(Continued on next page)

Fruit of our Labors

(Continued)

completers have finished their undergraduate degrees and four of those students are applying to health professions training. The *Jovenes* program has a student organization at each high school that develops leadership skills as a part of the curriculum. Program graduate Raquel Tenorio said, "The *Jovenes por la Salud* organization provides Latino students with opportunities to pursue a health career, experience hands-on training in clinical settings and develop leadership in health related issues.

"The program also involves community youth in volunteer activities, exposes students to opportunities such as internships and assures that all seniors have an opportunity to go to a college or university," she said. Ms. Tenorio is currently a senior at UCLA majoring in physiological science.

Postbaccalaureate Program/Camp Med

A postbaccalaureate (post-bac) program was established with HISMET funds at the University of California Irvine in 1986. The Border HETC Program continues to fund and work with the post-bac program to develop a recruitment and retention program for underrepresented minority students. The success rate of this program is excellent, with 87 percent of program participants accepted into medical school and going on to work in underserved areas. The California HETC can boast that faculty at UCLA and UC Davis medical schools attended the UCI post-bac program.

In 1997, post-bac student Mario San Bartalome, MBA, currently a fourth year medical student, along with medical student Anh Ngo and pre-med student Diana Do, co-founded CampMed. The program functions as a recruitment tool geared toward exposing educationally and economically disadvantaged

high school students to health professions through a unique outdoor learning experience.

This HETC-funded peer mentoring program targets youth who show academic promise and are interested in pursuing health



Members of the Multicultural AHEC's Jovenes por la Salud program participate in the AIDS Walk Los Angeles.

and science careers but who may not have the resources to develop their potential. Camp Med fosters in high school students the initiative to seek higher education. In addition, CampMed assists teens in making successful transitions from high school to college and beyond. CampMed continues to be operated by medical and undergraduate students who are eager to stimulate and strengthen underprivileged teens' interest in science and the health professions. A total of 115 high school students attended Camp Med in 2002.

Camp Med's founders were excited about the impact the first weekend had on the high schoolers. A young woman who attended sent an e-mail saying she had always wanted to study medicine, but that her father expected her to finish high school, start working, get married and begin a family as soon as possible. This was not an unusual expectation for a daughter in this local Hispanic community. However, when the girl's father saw how excited she was at the end of camp, he told her he would support her in her studies for as long as she wanted to stay in school. The young woman is now enrolled at UC Riverside studying pre-med.¹

(Continued on next page)

Fruit of our Labors

(Continued)

Summer Urban Preceptorship

The HETC-funded Summer Urban Preceptorship (SUP) program recruits local minority high school, undergraduate and medical students along with family practice residents to work in a federally-designated Health Professions Shortage Area (HPSA) site primarily composed of underserved Latino immigrants in southwest Los Angeles County. Program participants are mentored and trained to become community leaders, facilitators and learners with a lifelong commitment to the underserved. This program began in 1993 and has been extremely successful — 75 percent of the preceptorship medical students have gone on to a residency in primary care and 93 percent of the high school students involved in the program have gone on to graduate. These numbers are significant, considering the drop out rate in this area is greater than 45 percent. This program is the most recent winner of the “2001 Spirit of Diversity Award” from Los

Angeles County Department of Health Services.

The California Border HETC has consistently impacted and influenced medical education and training programs in its target areas. Alumni from various HETC projects are now faculty at other HETC programs or medical schools where they can influence the training of the next generation of health care providers. Through the years the California HETC has constructed a pipeline of programs encouraging young adults who are primarily Latino from underserved areas to enter the health professions by recruiting and assisting them in completing their education, sustaining their interest in community health and primary care and improving their skills to work in underserved areas. Many students recruited at the genesis of the program have finished their residency training and are practicing in community clinics in underserved areas.

‘Homegrown’ Doctor Continues AHEC/HETC Experience

Raquel Soto, MD, grew up in Wilmington, California. Her father, a first generation Californian, is a factory worker and her mother is a special education teacher who grew up in Tijuana, Mexico. Dr. Soto knew she always wanted to be a doctor, but she says it was the experience of helping in her mother’s classroom, along with spending summers in Mexico, that sparked her desire to give back to her community.

Dr. Soto earned a bachelor of science degree in biology at California State University Dominguez Hills in Carson. She went on to medical school at the Drew/UC Los Angeles program where she participated in the Summer Urban Preceptorship Program in 1995. She returned the next year as the program’s student leader and organizer. After a family medicine residency at the Harbor/UCLA program in 2001 she

participated in a year-long faculty development fellowship as chief resident. She joined the department as a faculty member in 2002.

Dr. Soto said, “I’m homegrown! I never left home to attend school.” She was recently appointed the Wilmington/Los Angeles Port AHEC Center Director where she implemented the first in a series of community health classes at a local school-based health and education center. As part of this same project she is developing a *promotora* (community health worker) training program. She is thrilled that she

has found a place to practice true “community medicine.”



Raquel Soto, MD, California AHEC’s “Homegrown” doctor, is currently Center Director of the Los Angeles Port AHEC.

'Telling the AHEC Story'

A Qualitative Case-Study Evaluation of Community Partnerships in the WWAMI AHEC

By Peter House, MHA; Kelly Hubbell, MS, LPC; Beth Landon, MBA, MHA; Steven Meltzer, PA-C; Frank Newman, PhD; Linda Powell, MS, CPT; Laurie Wylie, MA, ARNP, BC

The WWAMI AHEC Program Office is housed at the University of Washington School of Medicine, and has close ties and kinship to the WWAMI Program in the School of Medicine. The WWAMI states are Washington, Wyoming, Alaska, Montana and Idaho.

WWAMI AHEC has 19 years of experience working with rural communities in the five-state region to strengthen and expand their health systems. This work stems from each program's efforts to meet a fundamental purpose of AHECs — to improve the distribution of America's health workforce.

As a qualitative evaluation of WWAMI's work with communities, the following vignettes will describe efforts in several towns in the region. Consistent with the recent evaluative study of the AHEC program¹, the WWAMI presents strong examples of inter-organizational theory in practice. The activities described below link independent and autonomous organizations (the AHEC centers and the communities that they serve) to work toward the achievement of the shared goal of expanding the workforce where it is most needed. The names of the towns have been changed as a courtesy to AHEC partners in those communities.

Mr. House is Assistant Director of the WWAMIAHEC Program Office at the University of Washington.

Through a partnership with the WWAMI states (Washington, Wyoming, Alaska, Montana and Idaho), medical students spend their first year in their home states on the campuses of state universities. In the second year, all students are in class together in Seattle.

The third and fourth years comprise clinical rotations and all students, regardless of state of origin, have many opportunities for educational experiences in rural communities.² In the final analysis, for WWAMI to succeed, WWAMI students should end up in practices well distributed in the states that have financed their educations.

The WWAMI-AHEC system extends the approach of the WWAMI program by partnering with communities as a way to support those communities in meeting their health workforce needs. AHEC believes that, in order for students to desire careers in rural towns in

the WWAMI states, the communities must be attractive to the students. AHEC works with hospital boards, community clinics, community groups and physician practices to make these entities stronger, thereby making the towns better places to work.

Each of the projects described in the next few pages entailed a systematic approach to problems facing the communities. Some projects included extensive assessments and data gathering concerning the communities. Each included fact-finding and qualitative analysis of the issues facing the communities. The most-used approach, the Community Health Services Development program³, entails assessments (community surveys, scope of services reviews and financial analyses of the hospitals), planning and implementation

The Idaho Rural Health Education Center (IRHEC) in partnership with Idaho State

Ms. Hubbell is the Coordinator for Interdisciplinary Programs for the Wyoming AHEC at the University of Wyoming.

Ms. Landon is Director of the Alaska Center for Rural Health at the University of Alaska, Anchorage.

(Continued on next page)

The WWAMI AHEC Story

(Continued)

Western Washington: Building Skills and Trust

The Western Washington AHEC (WWAHEC) learned that several organizations within “Palmer” county were requesting assistance in recruiting health care providers. In addition to Critical Access Hospitals (CAHs), the communities had a tribal clinic, rural health clinics, private practices and a community health center. Concern was voiced that if all the potential employers hired, there would be an over-supply of providers.

WWAHEC, under contract with the local health department and working with the State Primary Care Office, examined provider capacity in two health services areas. Specifically, the project determined the need for primary care providers by assessing the health services and population, estimating primary care office visits and estimating the total demand for primary care providers in the health services areas. The model used was developed by Operation Rural Health Works.

WWAHEC provided additional comparative analyses using the Practice Income Potential model developed by the University of Washington Rural Health Research Center. Funds for the project were provided by the Washington State Department of Health FLEX program, as both hospitals in the service areas were CAHs and each employed primary care providers directly.

This pilot project became the vehicle for

the Primary Care Office and the AHEC to collaborate, bringing together expertise from both entities. The project determined that “according to the model,” sufficient primary care providers were already working in the service areas. WWAHEC presented the findings in community meetings, with the majority of primary care providers involved. The AHEC was able to foster stronger connections between a CAH and a Community Health Center.

The health department invited WWAHEC back to the community to start the next phase of the project: taking a closer look at access to care through the use of focus groups. An additional goal is to continue to facilitate the dialogue between competing entities.

In Palmer, AHEC works as a neutral but knowledgeable and skilled partner. AHEC staff knew the providers because AHEC itself places medical students in their community, arranges for shadowing experiences for local high school students, provides continuing education for health professionals and facilitates community health planning for the area.

As a result, AHEC was able to garner participation from most of the primary care providers with the strong support of the health department. In rural communities, the skill and trust that are built over years of working together continue to be the key elements in successful ventures.

Mr. Meltzer is the Director of the AHEC at Washington State University in Spokane.

Dr. Newman is with the Montana AHEC and is Professor Emeritus of Veterinary Virology and Medical Science at Montana State University.

Ms. Powell is Project Director at the Idaho Rural Health Education Center.

Ms. Wylie is Executive Director of the Western Washington AHEC and President of the National AHEC Organization (NAO).

Eastern Washington: Keeping the Focus on Health

A “Women’s Night Out” and “A Day at the Beach,” activities designed to attract local women to explore women’s health issues; a calendar featuring local breast cancer survivors; and beginning support groups for both multiple sclerosis and breast cancer are just one year’s outcomes of an ongoing collaboration between the AHEC at WSU Spokane and the “Rundlett” County (Washington) Health Coalition.

Coalition members are the county public health department and the two rural hospitals located in the county, Community Memorial Hospital and Lamereau Hospital. Working with AHEC staff and graduate students, Coalition members updated the county’s *Community Health Status Assessment in 2001* and then chose to focus on their discovery that breast

cancer rates were not only higher than in surrounding similar rural counties but that the numbers of cancers diagnosed as “late stage” were also much higher.

Support and meeting facilitation by AHEC staff resulted in an application for a Federal “outreach grant,” but the momentum established has led to multiple outreach activities before the outcome of the application is even known. Busy coalition members credit the AHEC at Washington State University Spokane with keeping them focused on health promotion activities that easily “slip to the back burner” with the heavy day-to-day activities of chronically lean-staffed rural health facilities.

(Continued on next page)

The WWAMI AHEC Story

(Continued)

Wyoming: Introducing Med Students to Rural Practice

Wyoming AHEC partners with community health care providers around the state as well as with research projects at the University of Wyoming. One goal is to encourage medical students into rural practice.

AHEC does this, in part, by encouraging Wyoming first-year WWAMI students to participate in the WWAMI four-week summer Rural and Underserved Opportunities Program (R/UOP). Another goal is to provide interdisciplinary training and experiences not only while the students are at the University of Wyoming but also when they are placed in rural communities for training experiences.

One year, Wyoming's WWAMI first-year medical student class included a married couple with a five-year-old daughter. Both students wanted to participate in R/UOP. Many options existed for these students to spend four weeks away from home, including asking grandparents to care for their daughter while they went to different communities, having each parent take four weeks as a "single parent" while the other was on rotation, etc.

With the help of AHEC community partners in "Moore," Wyoming, AHEC was able to place this married couple, and their daughter, with a married physician couple in practice together.

This medical student-family spent eight weeks in "Moore," with each parent working four weeks in the rotation and four weeks as

the on-duty parent. "Moore" is a beautiful spot and housing is scarce in the warm months. The hospital paid for a motel cabin for the entire eight weeks.

At the end of their summer the students reported having a greater understanding of how to integrate their professional aspirations with their personal family goals. They also reported learning more ways to feed a kindergartner with just a microwave than they had ever thought possible!

When Wyoming AHEC partnered with a research project, Wyo HealthCARE (Collaboration, Access and Rural Empowerment), they were able to place primary care students as partners with mental health students in rural communities. One of the communities AHEC used had never had a doctorally trained mental health professional.

The psychology resident who went to Northeast Wyoming on a rural rotation later took a full time position with the local mental health center, becoming the first psychologist in that county. She later became a preceptor for both mental health students and primary care students in rural rotations in that community.

As this community changed, she was able to coordinate her student precepting with one of the new doctors in town to ensure that medical students and mental health students received training in both venues during their rural rotations.

Alaska: AHEC and the Community Forge Strong Ties

In 1991, the administrator of the hospital in a small coastal town in Alaska contacted the WWAMI-AHEC Program Office at the University of Washington for help with a credentialing issue on the hospital's medical staff.

A physician faculty member visited the town and helped the board understand the dimensions of the issue and the consequences of failing to deal with it.

This project led to a more comprehensive set of assessments and interventions under the coordination of the Alaska Center for Rural

Health (ACRH) and the Alaska AHEC. The AHEC performed a needs assessment and then teamed with the WWAMI AHEC Program Office to work with the board of the hospital to create a strategic plan and to work on the fundamentals of hospital governance.

A key element of the plan involved a resolution of the medical staff issues and the creation of a process to assure compliance with hospital rules and regulations.

During the following years, the AHEC and the WWAMI Program Office continued to work

(Continued on next page)

The WWAMI AHEC Story

(Continued)

Forging Strong Alaska Ties

with the rural hospital and its board. Because of the collaborative relationship that developed between the AHEC and the hospital, the two began to work on other issues as well, including the development of telemedicine services.

The ACRH placed medical students in clinics in the town and, most recently, the ACRH

and the WWAMI AHEC Program Office completed a needs assessment to help the hospital gain Critical Access Hospital (CAH) designation. Twelve years later, the AHEC and the community are still partnering to make health care stronger and more available in the town.

Montana: AHEC Helps Stem Flow of 'Red Ink'

Ten years ago the hospital administrator from a rural community in Montana asked the Montana AHEC for advice and technical assistance to prevent a "crisis situation," the closing of their small rural hospital.

The hospital was owned by a nationally recognized hospital management firm. The firm had notified the hospital administrator and the hospital board that it planned to close the hospital due to the growing debt, which was approximately \$600,000. This represented a substantial percentage of the gross revenues of the facility.

Members of the hospital Board of Directors were faced with several questions: how to assume management of the hospital, how to involve the community in the decision making process and how to develop a financial plan to eliminate the accumulated debt?

The administrator was aware of the Montana AHEC and the assistance it could offer to rural communities and she asked for assistance. The Montana AHEC, in partnership with the Regional WWAMI AHEC Program

Office and the UWSM Community Health Services Development Program (CHSD), met with the hospital board and immediately initiated the CHSD Program in the community (*see box below*).

It was a "success story" for this small rural community and for the Montana AHEC. Qualitative indicators of success included the facts that: 1) the hospital did not close, 2) responsibility for management of the facility was assumed by the board, 3) the \$600,000 "red ink" was eliminated in just over one year, 4) annual strategic planning was initiated and 5) the community assumed "ownership" of the hospital.

The hospital administrator and the board credit the Montana AHEC and the WWAMI Regional AHEC Program for saving the hospital.

In essence, the combination of aggressive community involvement, board commitment, hospital administrator competence and resolve, and "community spirit" saved the hospital. During the past 10 years the wisdom and resolve of the hospital administrator (the same person who made the original call to the Montana AHEC) and the hospital board have been demonstrated again and again.

Each year the hospital board requests the assistance of the WWAMI Regional AHEC Office in facilitating an annual retreat. The results of this continued administrative attention to planning and detail was illustrated in the summer of 2002 when the hospital board began planning a new facility and expanding the scope of services available to the residents of the county. This local health care delivery system is "alive and well"!

Community Health Services Development Program Activities in the Community

- Delivery of a comprehensive survey to every household in the county
- Management reviews of the hospital
- Scope of service reviews for the hospital and medical clinics
- Financial reviews
- Analysis and presentation of the survey results in a "town hall meeting"
- Planning meetings with the board of directors
- On-going consultation and technical assistance as requested

The WWAMI AHEC Story

(Continued)

Idaho: Senior HealthMobile Involves the Community

University (ISU) and Area V Agency on Aging (AAA) implemented a HRSA training grant officially titled *Rural Interdisciplinary Training in Geriatrics* but locally known as the Senior HealthMobile Project.

ISU students and faculty from six disciplines travel in the ISU Senior HealthMobile to rural communities to provide wellness services to seniors at local senior centers and also to homebound seniors. They also establish relationships with local providers for needed follow-up services.

One reason for the success of this program has been substantial community involvement prior to the actual delivery of services. For example, in "Cobbs," Idaho, project staff spent six months contacting local elected officials, health providers, human service providers, senior centers, volunteers from local churches and other key stakeholders to make them aware of this project and to encourage utilization.

All of these efforts paid off at the ribbon cutting ceremonies held at the county senior center. The local high school band and a swing choir provided musical entertainment and the more than 70 attendees were invited to tour the van. Clients who had received services praised the Senior HealthMobile.

This model was successfully implemented in other communities throughout southeastern Idaho. Health risk assessment and appraisal, vision and blood pressure screenings, oxygen saturation check, blood sugar testing and memory loss screening were provided, along with educational sessions on nutrition and

aging, diabetic nutrition, diabetes management, heart health, exercise, strengthening, fall prevention and the taking of medication to more than 450 total clients with a minimum of 743 total encounters during the first two years of this project.

The Senior HealthMobile initiated a breast-screening day at a local senior center and identified an elderly woman with suspicious lumps. She was referred to the regional medical center, diagnosed with breast cancer, treated and has recovered fully due to the early intervention through this project.



Local students provide entertainment for the ribbon cutting ceremonies for the "Cobbs" Idaho Senior HealthMobile.

Endnotes

¹ "An Evaluative Study of the Area Health Education Centers Program," The Cecil Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, 2002.

² Ramsey PG, Coombs JB, Hunt DD, Marshall SG, Wenrich MD, "From concept to culture: the WWAMI program at the University of Washington School of Medicine", *Academic Medicine* 2001 Aug; 76(8):765-75.

³ House, P. and Hagopian, A.; "Community Health Services Development Program," *Issues Affecting Rural Communities*, Rural Education Research and Development Centre, James Cook University, Townsville, Q., Australia, pp. 66-71, 1994.

Conclusion

These stories offer vignettes of only a few of the more than 70 communities with which WWAMI AHEC has partnered. Clearly, each of these successes arose from shared goals and the recognition by the AHECs and the communities that they needed each other.

The AHECs work to improve the health workforce in terms of quantity, quality and distribution. Without community involvement, however, those efforts will be for naught. Only the folks "in the trenches" in the communities will know what is best for their communities. At the same time, the communities also want to improve the local health workforce but are often in need of partners from outside the community who can bring skill and experience to local problem solving.

Without the resources that AHEC brings to the initiatives, most of the successes described in these vignettes would not have happened. The strength of these interorganizational efforts relies on trust and common purpose, without the bureaucratic pitfalls of a more hierarchical structure.

Immigrant and Refugee Center, Illinois AHEC Accepting the Challenge to Change the 'Legacy' of Hepatitis B Virus

By Virginia Warren, RN, MPH

The hepatitis B virus (HBV) is a leading cause of acute hepatitis, chronic hepatitis, cirrhosis and liver cancer worldwide. It is especially prevalent among Asian and Pacific Islanders (API). Estimates suggest that one in 10 APIs in the U.S. are chronically infected with HBV as a result of perinatal and early childhood transmission, and that their risk of infection is 17 times greater than that of the general population.

In 1998, the Immigrant and Refugee Center of the Illinois AHEC responded to the National Task Force on Hepatitis B challenge to change the legacy of hepatitis B in API communities by increasing hepatitis B vaccination rates in API children, and by bringing hepatitis prevention information to schools, communities and providers of health care services.

The Immigrant and Refugee program of the Illinois AHEC has worked closely with Asian and Pacific Islander (API) communities in Chicago since 1994, improving access to culturally and linguistically appropriate health care through health professions education and health career recruitment programs.

AHEC built on existing relationships with community organizations, area schools and providers to begin the Hepatitis Education and Prevention Program (HEPP), which now collaborates with 60 Chicago public schools and 13 local ethnic community organizations serving people of Chinese, Vietnamese, Laotian, Cambodian, Korean, Ethiopian/Somali, Bosnian and Latino descent.

School Outreach

HEPP uses several strategies to prevent the spread of hepatitis. In cooperation with the Chicago and Illinois Departments of Public Health and the Chicago Public Schools, HEPP coordinates HBV immunization drives in schools selected for their high level of immigrant enrollment. Since 1998, the HEPP collaborative has immunized more than 16,000 Chicago public school students.

HEPP has now turned its attention to teens who have not received vaccination against hepatitis B. While the overall hepatitis B vaccination rates approach 80 percent in Chicago public schools, the rate among 15-18 year olds can be as low as 20 percent in some high schools.

Ironically, young adults are at greatest risk for hepatitis B infection. To reach adolescents with information on hepatitis prevention as well as vaccination, HEPP staff trained peer educators in four high schools in 2001/2002 and eight high schools in 2002/2003. Peer educators teach classmates about hepatitis B and assist in organizing immunization campaigns in their schools. These students not only gain valuable first-hand experience in conducting a public health initiative, they also receive Service Learning Credits from their schools.

AHEC has found that student participation in planning and organizing immunization campaigns significantly increases the turnout on vaccination day. In four high schools in 2002, more than 1000 students were immunized for HBV and were introduced to public health service on a first-hand basis.

By addressing the need to vaccinate children against hepatitis B, HEPP is helping to reduce the incidence of liver cancer as well as chronic liver disease.

Community Outreach

AHEC collaborates with 13 ethnic HEPPs to provide information on hepatitis and with community organizations in Chicago through HEPP to provide information on hepatitis and its prevention, employing a community Health Educator model. AHEC staff train and supervise bilingual lay educators who receive four hours

(Continued on next page)



Ms. Warren is Coordinator of the Hepatitis B Catch Up Project (HEPP) in Chicago.

'Legacy' of Hepatitis B

(Continued)

of intensive training on the liver, education provided in monthly meetings.

AHEC provides free hepatitis B screening and immunization to uninsured Asian and African immigrants. The Health Advocates organize screening and immunization events in partnership with local physicians who provide talks about hepatitis B in the various native languages. HEPP works with these physicians to ensure that presentations are appropriate and effective for the population.

In 2001/2002, AHEC screened more than 1000 Asian adults for presence of the hepatitis B virus. About 10 percent of those screened were found to be HBV antigen positive, indicating that they are carriers of the disease. This confirms national estimates for the API population. Vaccine, available for adults at risk, is provided to the program at no cost by the Chicago Department of Public Health. In 2001/2002, more than 500 doses of adult vaccine were provided through the HEPP collaborative at local community organizations.

Among barriers faced by AHEC/HEPP staff is the fatalism many Asian-Americans feel about having the hepatitis B viral infection. Eager to take advantage of free screening, those identified with chronic infection may be reluctant to enter a health care system that is often not affordable, accessible or accepting of cultural differences.

AHEC is conducting post-screening surveys and interviews to better understand the role of attitudes, beliefs and behaviors toward follow-up recommendations given to HBV carriers. It is hoped that this protocol will yield information to assist in designing cultural competency strategies for non-English-speaking health care consumers and health care service providers.

Provider Education

HEPP's objectives also include continuing education for medical professionals in the Chicago area who serve vulnerable populations. In collaboration with the University of Chicago, information on current research, diagnosis and treatment is provided through workshops, presentations and written materials. In 2001/2002, more than 300 physicians and nurses serving the immigrant and refugee community attended continuing

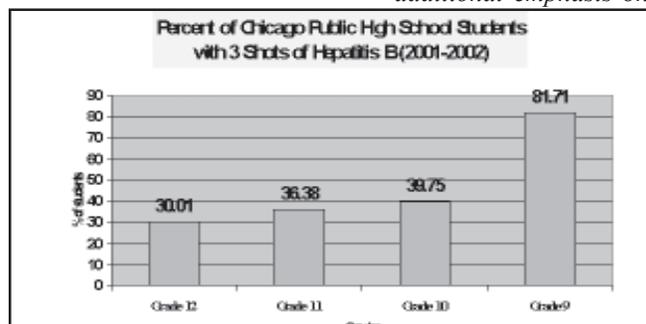
professional education sessions. In addition, AHEC encourages members of the Asian Pacific American Medical Student organizations on local campuses to assist in hepatitis B education and vaccination projects.

Conclusion

The program's impact on HBV immunization rates is difficult to quantify because it takes the efforts of many groups and individuals to achieve success. However, since 1998, the AHEC/HEPP immunization catch-up effort with cooperating schools increased HBV series completion rates among API children from 14 percent to greater than 70 percent. In the past four years AHEC/HEPP staff have observed an increase in understanding of hepatitis B disease risk factors and prevention measures at the community level. Community Health Advocates requested better access to HBV screening and immunization for their uninsured clients. In response, AHEC/HEPP has been able to provide these services in collaboration with the Chicago Department of Public Health and with support from the Illinois Department of Public Health and Glaxo Smith Kline Pharmaceutical Company.

The AHEC/HEPP program demonstrates that effective disease prevention activities in high risk communities can be accomplished by linking individuals with groups such as community organizations, local clinics, schools, medical professionals, students and community volunteers. These linkages allow each to become involved effectively in issues without having sole responsibility for achieving broad and complex objectives. The process maximizes the power of individual partners through combined action. In this program, HEPP has been a catalyst for further eliminating health disparities that effect minority populations in Chicago.

Since 1998, the program has seen HBV series completion rates increase from 14 percent to 70 percent in collaborating schools (see graph below). In addition, AHEC's work has become a catalyst, influencing public health policy in Chicago, leading to an additional emphasis on



Lowcountry South Carolina AHEC Students Taste Rural Life in Interdisciplinary Intensive

By Diane M. Kennedy, MS, and Elizabeth A. Erkel, PhD, RN

South Carolina is a southern state whose rural residents are disproportionately poor and underinsured. In addition, the disparity between rural and urban health care resources, and for primary care health care providers, in particular, is great. The South Carolina Rural Interdisciplinary Program of Training (SCRIPT) prepares health professions students to deliver culturally acceptable care in rural settings from an interdisciplinary, community-focused perspective. Living and practicing in a rural community enables health professions students to learn that rural health care presents unique challenges as well as opportunities for a positive, high-quality lifestyle, both personally and professionally.

SCRIPT seeks to increase the likelihood that health professions students will practice in rural, underserved areas following completion of their education. Survey results from program completers has shown a positive impact.



Ms. Kennedy is Center Director for the Lowcountry AHEC and Program Director for SCRIPT.



Dr. Erkel, Principle Faculty Member and Curriculum Director for SCRIPT, is an Associate Professor in the College of Nursing at the Medical University of South Carolina in Charleston.

For the past nine years, SCRIPT has been administered by the Lowcountry Area Health Education Center (LCAHEC), with funding from the Bureau of Health Professions' Quentin N. Burdick Program for Rural Interdisciplinary Training and the Robert Wood Johnson Foundation Southern Rural Access Program. Between 1994 and 2002, 366 students from 11 health professions participated in SCRIPT.

SCRIPT is an intensive five-week course that combines didactic instruction, community-focused health promotion activities, clinical training in rural settings and field trips to teach rural health, cultural awareness and the interdisciplinary approach to health care. Use of continuous quality improvement (CQI) methods throughout SCRIPT has improved the quality of implementation with increased positive feedback from participants. CQI is utilized as one of many SCRIPT evaluation methods, which assist with policy and planning decisions that improve the program from session to session and year to year. Improvements are made based on students, faculty, staff and community member input.

In 2001, a mail questionnaire was administered to the individuals who completed the program in the first six years (1994 to 1999). The respondents were from the disciplines of health administration, medicine, nurse practitioner, nurse midwifery, nursing (BSN), occupational therapy, pharmacy, physical therapy, physician assistant, and speech/



"Mr. Miller" takes SCRIPT students for a tour of Blackville, a community in rural Bamberg County with a large Mennonite population, in his homemade trolley.

language therapy (see *Practice Pattern Outcomes on next page*).

The ratio of program alumni who intended to practice in a rural area to their counterparts

practicing in non-metropolitan areas in the late 1990s was 5.0 for nurse midwives (100% vs. 20%), 4.3 for physician assistants (86% vs. 20%), 3.7 for nurse practitioners (89% vs. 24%), and 2.5 for physicians (25% vs. 10%).^{1, p. 32, 2-4}

(Continued on next page)

Rural Interdisciplinary

(Continued)

LCAHEC's rural interdisciplinary training project has grown from one session serving 12 students from one university placed in four counties in 1994 to four sessions in 2002, serving 73 students from six universities placed in 20 counties in three AHEC regions of the state.



SCRIPT 2003 will further expand to a statewide initiative in collaboration with the three other regional AHECs: Mid-Carolina, Pee Dee and Upstate.

An example of change facilitated by continuous improvement is use of the World Wide Web. In 2001 a Web-based instruction piece was added to SCRIPT, while in 2003 a Web-based application process was implemented. Web-based instruction (www.musc.edu/trip) includes a chat room, orientation to SCRIPT versus one day on campus), extensive Web-site links, and a bulletin board for student messages. The application process had previously been done by paper and pencil registration forms (www.lcahec.com/script.htm).

SCRIPT has shown that immersion of health professions students for a relatively short period of time in rural, interdisciplinary, community-based health care increases their likelihood of selecting rural, underserved practice. With the expansion to 100 students in five sessions annually from 2003 to 2005, SCRIPT will continue to positively impact health care in South Carolina.

Students gather on the grounds of the Old Sheldon Church in Beaufort County to hear details of the history of the area from a Professor Emeritus at the University of South Carolina who has researched the county history. Though now in ruins, the church and the entire area played important roles in the slave history of South Carolina.

Practice Pattern Outcomes Indicated in Survey

In 2001, a mail questionnaire was administered to the 193 program completers from 1994 to 1999 to determine practice pattern outcomes. There were 95 respondents, representing 10 disciplines.

Respondents were demographically similar to program participants: predominantly female (81%), white (84%), and urban (61%) with a mean age of 33 years.

First, of the 75 graduates employed in their field:

- 85 percent demonstrated intent to practice on an interdisciplinary team
- 67 percent were practicing on an interdisciplinary team
- 18 percent indicated that they would prefer to practice on an interdisciplinary team

Second, of 75 graduates employed in their profession:

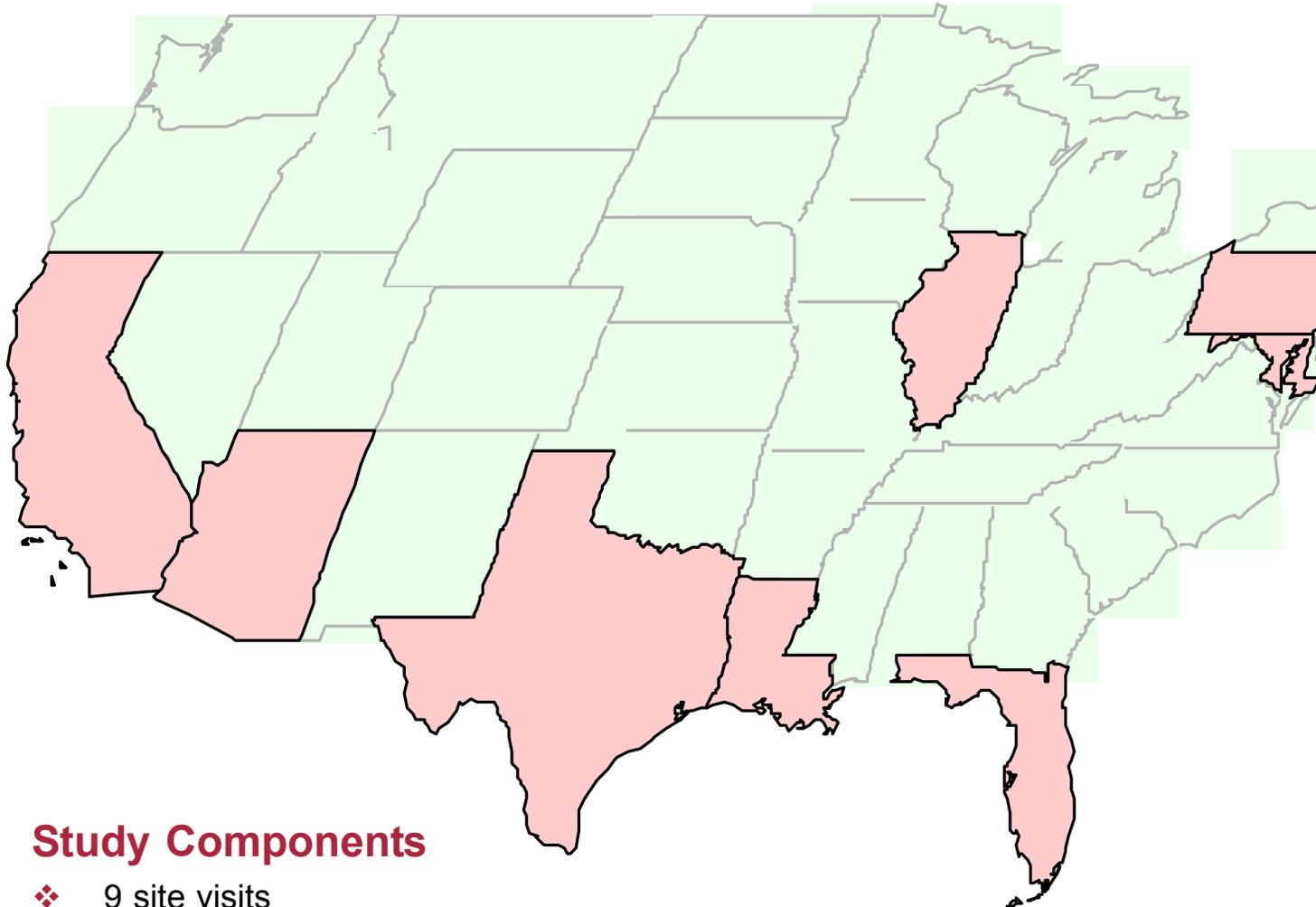
- 55 percent demonstrated intent to practice in a rural area
- 40 percent were working in a rural area
- 15 percent had sought a rural position but did not obtain it. 

References

1. American Medical Association. *Physician characteristics and distribution in the US, 1999*. Chicago: Author; 1999.
2. Baer LD, Smith LM. Nonphysician professionals and rural America. In: Ricketts III TC, ed. *Rural health in the United States*. New York: Oxford University Press; 1999:52-60.
3. Moses EB. Nurse practitioners: Based on data from the national sample survey of registered nurses, March 1996. *Bureau of Health Professions, Division of Nursing*. Available at: <http://bhpr.hrsa.gov/dn/npnmdata.htm>. Accessed August 10, 2001.
4. U.S. Department of Health and Human Services Division of Nursing Nursing Data and Analysis. *Sixth national sample survey of registered nurses*. Washington, DC: Author; 1996. PB97-503320. Available at: <ftp://ftp.hrsa.gov/bhpr/nursing/samplesurveys/1996sampsur.pdf>. Accessed February 27, 2002.

The National AHEC

- ❖ What are the key factors, characteristics, structures, and processes employed by successful AHECs?
- ❖ 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?



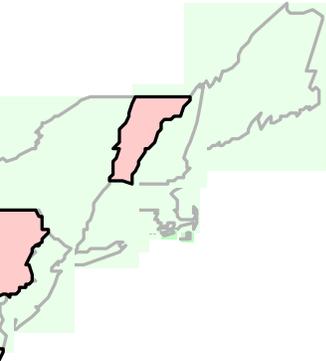
Study Components

- ❖ 9 site visits
- ❖ Focus groups with students, stakeholders
- ❖ Analysis of CPMS/UPR (UDS) data
- ❖ Analysis of published materials

Evaluative Study

Major Findings

- ❖ Community-based health professions education is the core competency and value of AHEC
- ❖ AHECs are viewed as neutral entities, optimizing their ability to serve as convener, catalyst, and bridge builder
- ❖ AHECs provide a unique and valuable infrastructure for rolling out a wide array of federal and state programs
 - ❖ Leadership is key at both Program and Center levels
 - ❖ Competing institutions must collaborate, and geography must be respected
 - ❖ Transition to stable state funding is important sentinel event
 - ❖ Free-standing Centers are more effective in addressing regional needs
 - ❖ Partnering at state and community levels is a central role for AHECs/HETCs
 - ❖ Workforce shortages are part of AHEC's mission, but AHECs often are not the first to react or to be asked to help
 - ❖ AHECs have responded quickly in offering educational programs on emerging issues such as bioterrorism
 - ❖ Doing interdisciplinary education is still difficult
 - ❖ Communication among stakeholders and AHECs is crucial—technology doesn't substitute for "being there"
 - ❖ CPMS/UPR is a work in progress
 - ❖ The AHEC BRAND needs to be sharpened and better communicated to constituents at all levels
 - ❖ AHECs must cope with change while staying sensitive to "mission creep"
 - ❖ Value compatibility of host institution is critical
 - ❖ High level of trust among partners is essential



North Carolina AHEC An Academic Partnership for Advanced Pharmacy Education

By Pamela U. Joyner, EdD, MSPharm; Tracy E. Thomason, PharmD and Scott R. Smith, MSPH, PhD

In partnership with the North Carolina AHEC Program, the University of North Carolina at Chapel Hill (UNC-CH) External Doctor of Pharmacy (PharmD) Program was established in 1996. The program's purpose is to provide an opportunity for practicing pharmacists located across the state of North Carolina to enhance their clinical training and earn the doctor of pharmacy degree.

The program consists of 25 hours of didactic coursework delivered through distance education and provides experiential learning through seven clerkships offered in health care practice settings within the NC AHEC system. Didactic courses in the program have been developed for distance education and utilize a combination of printed material, videotapes of on-campus lectures, online coursework and interactive videoconferences.

Pharmacists in the External PharmD Program take exams and participate in videoconference sessions within their local AHEC region. Once pharmacists complete the didactic portion of the program, they are eligible to begin the clerkship component. Pharmacists in the program are assigned to their local AHEC region, but they have the opportunity to explore clerkships in the statewide AHEC system where AHEC and community-based faculty serve as clerkship preceptors.

Although the External PharmD Program is primarily coordinated and administered from the main campus in Chapel Hill, the AHEC faculty have provided integral support since the program's inception. AHEC pharmacy faculty have provided videotaped didactic lectures and served as clerkship coordinators and project advisors. In addition, they have been members of the Professional Education Committee that oversees the development and modification of policy and procedures.

During the spring of 2000, a questionnaire was developed to evaluate the program and determine the potential impact of the PharmD

degree on external graduates' careers and practice of pharmacy (Joyner, *et al*, 2002). The questionnaire and cover letter were mailed to the first 107 graduates of the program. Findings were published in the spring 2002 edition of the *American Journal of Pharmaceutical Education*.

Overall, 80 graduates responded to the survey, for a response rate of 75 percent (80/107). The majority of program graduates are female, married, have at least one dependent child and are over 35 years of age. In addition, the majority of respondents were currently employed as pharmacists and worked more than 40 hours a week.

Survey findings also showed that 35 (44 percent) respondents have received a promotion or job change since receiving the PharmD degree. Eighty percent of these reported spending less time with prescription processing and more time in educational activities, clinical activities, management and research. Eleven additional students (14 percent) reported a change in job responsibilities, including increased time in clinical and educational activities.

The respondents were asked to rank perceived benefits of obtaining a PharmD degree using a five-point Likert scale. When the 35 graduates who reported a promotion or job change since receiving the PharmD were asked their primary reasons for obtaining the degree, 100 percent rated "better career mobility" and "remaining current with knowledge" as important benefits of obtaining the degree. Likewise, 97 percent of these respondents reported that competitive advantage when applying for a job and improved clinical skills were important benefits. For the 11 graduates who reported a change in job responsibilities, 91 percent said that better career mobility, better patient care and remaining current with knowledge

(Continued on next page)



Dr. Joyner is Associate Dean for Professional Education and Clinical Associate Professor for the University of North Carolina at Chapel Hill School of Pharmacy.



Dr. Thomason is Associate Director of the External PharmD Program and Clinical Assistant Professor for the University of North Carolina at Chapel Hill School of Pharmacy.

Advanced Pharmacy Education

(Continued)

were important benefits. One hundred percent of the 34 graduates who reported no changes in their job or responsibilities said that remaining current with knowledge was an important benefit of obtaining the PharmD degree. Ninety-seven percent of this group reported that competitive advantage when applying for a job was a very important reason.

Ninety-two percent of respondents agreed that the combination of course packs, videotapes, interactive two-way video-conferences and online course work are effective methods of instructional delivery. Forty-two percent agreed with the statement that they preferred delivery of course material by the Internet. According to the respondents, coursework increased their overall intellectual

growth, interest in learning more about new things and the ability to critically analyze ideas and information.

The innovative partnership between the University of North Carolina School of Pharmacy and the NC AHEC system used in the External PharmD Program has been successful in providing advanced education and training to practicing pharmacists across the state of North Carolina. In many cases, graduates assumed new roles and responsibilities after completing the program. The collaboration between faculty located at the university's main campus and the AHEC centers broadens the educational experience of the pharmacists and helps to improve the health care of North Carolina citizens.



Dr. Smith is Associate Professor in the Division of Pharmaceutical Policy and Evaluative Sciences in the School of Pharmacy at UNC Chapel Hill.

North Carolina AHEC Digital Library

By Mary Beth Schell

In today's current information environment, health professionals and students expect information to be available at their "desktop" whenever they need it. The North Carolina network of AHEC libraries, recognizing this information need, created the North Carolina AHEC Digital Library (ADL).

The North Carolina AHEC Digital Library (ADL) was launched in 2000 to meet the biomedical information needs of health professionals and students in isolated and rural locations throughout the state. It is the Internet portal in several small hospitals in rural areas and houses the primary nursing texts for nursing students at one hospital's nursing programs.

AHEC librarians serve as the frontline marketing and training personnel, while the AHEC Library Directors serve as the steering committee. The ADL serves AHEC staff and faculty, preceptors, medical residents, students, hospital staff and community health care professionals. The ADL goal is to provide biomedical information through an easy-to-use single portal through which health professionals can access a core set of electronic resources. One key in achieving this goal was creating an authentication system into the ADL that would match the primary AHEC clientele with appropriate electronic resources.

Each member or group of members can access different resources or combinations of resources depending on their relationships or affiliations with various AHECs, health care organizations, universities or through personal/individual memberships in the ADL.

ADL achieves cost savings by leveraging and maximizing existing licenses for electronic resources by

extending existing university licenses to all university affiliates, including AHEC staff, preceptors, off-campus students and medical residents. The ADL authentication system passes the user directly through to only the licensed resources for which he or she has eligibility. These resources are from AHEC/hospital libraries, community hospitals and an ADL individual membership category.

Several smaller hospitals in North Carolina use the ADL to access their hospital's electronic resources. A special collection of resources was purchased for the ADL Individual Member group, a membership package available for an annual fee.

The ADL plans to expand into new areas including the creation of tools for managing and providing continuing education opportunities and the creation of additional special collections. New services are also on the horizon for the ADL, including improved document delivery and virtual reference.



Ms. Schell is the North Carolina AHEC Digital Library Project

Where Does It Hurt, Doc? Where They Cut Out the Training

The following article appeared in the Washington Post on Sunday, August 18, 2002, and was submitted to the National AHEC Bulletin by Dr. Mullan

By Fitzhugh Mullan, MD

A typical morning in my clinic starts with a third-year medical student and a 4-year-old child giving each other a wary eye. Both of them know that the student is about to perform an exam, and neither is comfortable about it. “Should I go ahead?” the student asks me, glancing from the child to his seated mother. I nod, and haltingly the student begins, “Where does it hurt? *Donde le duele?*”

The child and his mother smile at the bad accent. Awkwardly but gamely, the future doctor undertakes his exploration of the body, the problems and the life of this boy from El Salvador. With this exam and a score of similar encounters, the student is learning primary care, pediatrics, community medicine and a bit about America as an immigrant nation.

I teach at the Upper Cardozo Community Health Center in Columbia Heights as part of the District of Columbia AHEC, a federal initiative that pays salaries and support for community-based teachers. The purpose of AHECs is to train future health professionals in inner-city practice with the intent of recruiting some of them back when they graduate.

We call it “safety net” medicine. It’s not a board-certified specialty, nor a course formally offered in medical school; it is simply the art and science of providing health care to people who are too poor or too disconnected or too new to this country to get what they need. This is no small task: There are 44 million uninsured Americans, 32 million of them live below the poverty line and more than 26 million are

immigrants.

Medicaid, public hospitals and charitable clinics are part of the safety net, as are the federally funded community health centers that care for 10 million people annually. President Bush has identified community health centers as a national priority and, with his support, Congress has increased funding by more than \$250 million in the past two years.

This new money will fund more doctors to work in more poor communities, making it the perfect time to beef up the educational programs to train such doctors. But no. Incredibly, the president’s 2003 budget calls for the elimination of the AHEC program and crippling cuts in similar federal initiatives to train doctors for these same communities. Where are the doctors to come from? One wonders if anyone from the president’s Office of Management and Budget ever visited a safety net clinic, talked to a medical educator or considered the uphill battle of a community health center recruiter.

Columbia Heights is an old African-American neighborhood that today is home for a growing population of newly arrived immigrants from Central America, Vietnam, the Caribbean and West Africa. Incomes are modest, unemployment high and health insurance rare. There are a lot of medical problems in Columbia Heights — but they aren’t the ones that grab most of the attention in official Washington these days.

(Continued on next page)

‘One wonders if anyone from the president’s Office of Management and Budget ever visited a safety net clinic, talked to a medical educator or considered the uphill battle of a community health center recruiter.’



Dr. Mullan is a staff physician at the Upper Cardozo Community Health Center and a clinical professor of pediatrics and public health at George Washington University. From 1990 to 1995 he was director of the Bureau of Health Professions in the Department of Health and Human Services, which administers the Title VII program discussed in this article.

Where Does It Hurt?

(Continued)

Certainly bioterrorism is a concern, but a Patient Bill of Rights for the already insured seems farfetched for the majority of our patients, who have no insurance at all; and doubling the budget of the National Institutes of Health (from \$13.6 billion in 1998 to \$27.3 billion in 2003) to create more breakthrough technologies seems like health policy by Marie Antoinette when many of our patients can't afford simple X-rays or antibiotics.

Clinics like Upper Cardozo are vital classrooms for teaching safety-net medicine to the next generation of doctors. Many young men and women enter medical school full of idealism, but by the time they leave, the lure of cutting-edge science and the dazzle of high-tech procedures has drawn them toward the more lucrative sub-specialties of medicine and away from primary care. It takes a conscious educational effort, including exposure and role modeling, to encourage them to consider practicing medicine in the inner city (or among the rural poor or on Indian reservations). If the health care of people living in communities like Columbia Heights is to be improved, students need to see safety-net medicine as an important and viable career option, work that our society values and supports.

Even as I watch my students learning to treat lead poisoning and rat bites, to take patients' histories in Spanish, to deal with Medicaid and Child Protective Services, I know how tenuous our teaching enterprise is. Community health centers already struggle to keep their doors open to treat patients. They are not academic institutions; no one pays them tuition; and there are real costs in teaching medical students and medical residents as well as nurse practitioner, physician assistant and public-health students. Teaching takes time; students slow

a physician down, meaning that fewer patients will be seen; space for extra exam rooms and conference areas is expensive; and more students require more support staff.

For almost 30 years the government has contributed to this mission through a set of programs that provide incentives to medical schools, hospitals and students. These programs are known collectively by the drab title of "Title VII" for the section of the Public Health Service Act under which they are funded. In addition to the AHEC program that underwrites community-based teaching, Title VII supports student teaching and faculty development in the vital primary-care specialties of family medicine, internal medicine and pediatrics. Special grants sponsor programs for physician assistants, public health dentists and interdisciplinary teams working in rural health and in geriatrics.

Title VII is also the standard-bearer for government efforts to help students from minority and disadvantaged backgrounds get into the health professions. Currently a quarter of the American population is African American, Latino or Native American, while only seven percent of our physicians come from these groups. These figures are troubling not only because of what they say about unequal opportunity, but because study after study has shown that minority doctors are more likely to work in minority communities and improve services there. Through Title VII, the government has provided small but consistent support for pre-med programs, university-based centers of excellence and professional-school tuition assistance for minority students. Hundreds of summer

(Continued on next page)

'Last year some 32,000 health care profession students, including more than a quarter of the nation's medical students, spent time in clinical settings sponsored by AHECs. Graduates of training programs with primary-care teaching grants are 50 percent more likely than their peers to end up in practice in medically underserved communities. Virtually every minority physician working in the United States today has had his or her career touched by one or another of these programs.'

Where Does It Hurt?

(Continued)

science programs for poor kids and science enrichment classes for college students from disadvantaged backgrounds, as well as financial aid to thousands of minority youths in health-professions schools, depend on Title VII.

The current expenditure for Title VII is a drop in the federal bucket — \$295 million or roughly one percent of the NIH budget. Yet the Bush administration has called for crippling cuts in these teaching programs — a 90 percent reduction in the minority programs and the complete elimination of AHECs and primary-care training grants. OMB claims that they are not needed or do not work. It is hard to understand what yardstick of need they are using when the disparities in health care available to the rich and the poor in the United States are so abundantly clear. Title VII goes straight to the issue of these disparities. Last year some 32,000 health care profession students, including more than a quarter of the nation's medical students, spent time in clinical settings sponsored by AHECs. Graduates of training programs with primary-care teaching grants are 50 percent more likely than their peers to end up in practice in medically underserved communities. Virtually every minority physician working in the United States today has had his or her career touched by one or another of these programs.

year's budget is finally done. But when you are trying to persuade students — and, for that matter, faculty — that safety net medicine is important and valued work, confusion and uncertainty at the top deliver a demoralizing message. If the administration has better ideas for teaching safety-net medicine, now is the time to lay them out, since the Title VII legislation is, in fact, due for reauthorization this year. The growth of community health centers creates both the demand and the opportunity to train more providers for the safety net.

At Cardozo I work with a young physician who has just completed her residency in pediatrics and is enrolled in a Title VII-sponsored fellowship to learn community-oriented primary care — the special science of blending public health with clinical medicine. We pore over maps of the District of Columbia, focusing on local census tracts, health statistics, demographics and economic data. She has walked the streets of Columbia Heights, meeting with local leaders and running focus groups on community health. Based on her work, a team of staff and community representatives has selected childhood obesity as the target of a special campaign over the next year. She will finish her program prepared to teach community pediatrics and to serve as a leader in urban public health — *if* she finishes her program. All of her salary and support come from a primary-care faculty development grant that the president would eliminate.

Public support for teaching programs for students training in safety net facilities will help produce health professionals willing and able to practice in disadvantaged communities throughout the country. But it won't happen if the president and Congress don't stay committed to this mission and its requisite funding. Training health professionals to work in underserved areas needs to be a national priority linked to the expansion of community health centers. If we can afford the billions to double the budget of the NIH, we can surely find the millions needed to teach safety-net medicine — which might just bring some of those high-tech breakthroughs to the people of Columbia Heights.

'Big Doctoring in America: Profiles in Primary Care'

*What is the future of primary care in America? To answer that question, Dr. Mullan, a pediatrician, writer, and historian went to the source. He traveled the United States interviewing dozens of practitioners of primary care, querying them about their lives and their work. His latest book, **Big Doctoring in America: Profiles in Primary Care** (University Of Californian Press, August, 2002), is the product of that research. It is composed of 15 oral histories of clinicians he visited as well as his own provocative essays about the past and future of generalism in health care.*

Fortunately there is support for Title VII in Congress, and we have reason to hope that the programs will not be scrapped when next

East Texas AHEC Staff Aid Columbia Shuttle Disaster Relief

Staff members of the Piney Woods AHEC in Nacogdoches delivered food, equipment and information to help first responders and Red Cross personnel after debris from the space shuttle Columbia fell over rural East Texas on February 1.

AHEC staff members logged more than 100 hours of volunteer time outside their normal working hours, helping search teams in the heavily forested region where pieces of Columbia were being collected.

"This was a daunting task, and it was our privilege to offer our assistance to the relief team," said Becky Conditt, director of the Piney Woods AHEC.

Steven R. Shelton, MBA, PA-C, Executive Director of the East Texas AHEC Program, contacted Ms. Conditt early on the day of the disaster, authorizing her and her staff to use AHEC's resources to help with relief efforts.

That day, staff members took food to first responders in the communities of Etoile, Chinquapin and San Augustine and served meals at the main command post in Lufkin. They also met with Red Cross personnel, offering them much needed equipment while they waited for computers and printers to arrive from national Red Cross headquarters.

"I went to the command post to help, but I guarantee I got more from helping the workers than they got from me," said Meredith Stanford,



The shuttle Columbia command center at the Lufkin Civic Center housed federal agencies and volunteers. Lufkin city employees and volunteers, above, accept donations from local vendors.

Program Coordinator with the Piney Woods AHEC. She and her husband spent most of the first weekend and several evenings at the command post in Lufkin. "I was honored to be of assistance," she said.

"AHECs are in a strategic position to assist in times of disaster," said Ms. Conditt. "We have extensive contacts in the communities we serve and can quickly connect with health and human service providers, schools and civic leaders."



Texas Governor Rick Perry greets volunteers and Salvation Army staff working on the Columbia disaster relief team.



Meredith Stanford, a Piney Woods AHEC staff member, and Captain David Robinson, Salvation Army, worked at the Lufkin Civic Center command center.

NAO Data Sharing Pilot Project: ‘Telling the AHEC Story’ with Cold, Hard Facts

By Brian Sullivan, BBA; Mary Wainwright, MS, RN; Laura Tijerina and George Cohen

One goal of every AHEC program is to develop a high quality, effectively distributed health care workforce. Another goal is to address health care access needs. Evaluating how well the AHEC is accomplishing these goals at the state and national level is essential. Additionally, AHECs have a compelling need to communicate to policy makers the outcomes of the AHEC programs individually and, as a whole, nationally.

Across the nation, AHEC Programs develop tools and strategies to collect and organize information needed for annual reporting requirements. These tools also help to evaluate the effectiveness of individual AHEC programs at the state level. All programs collect data to complete federally required tables that often change from year to year. A further complication is that the reporting periods vary according to the competing or non-competing continuation cycle of the program. A recent informal survey of six AHEC programs found that no two programs collect the exact same data.

Since the beginning of the National AHEC Organization (NAO), members have expressed a strong interest in developing a standardized data collection system designed to capture national outcomes, ensure reliability with common definitions, provide consistency from year to year, demonstrate trends, share data across programs and provide an essential feedback loop to improve the AHEC program. With a grant from the federal AHEC Agency, NAO began a pilot project last year to develop a data sharing system.

In 1999 the federal AHEC Agency convened a work group of AHEC leaders to develop a set of six tables to collect workforce development data relating to diversity, distribution and quality of the health care workforce. Those six tables were required by all programs in 2000 and all competing programs in 2001 and 2002. The NAO project selected those six tables as the basis for the development of the pilot system.

The pilot project had two primary goals: collect the six tables’ data electronically from a sampling of national programs and develop an Internet web site that could display the data collection results for NAO members and the federal AHEC agency.

The NAO decided to accomplish the project in two stages. The first stage — building the data collection system based on the six tables — has been completed. The second stage will further the development of the database, refine and expand the reporting functions and develop a web-based user interface for data entry. Another goal of the second stage will be to clarify and define the information requested each year. This will help to ensure that the information recorded by each state AHEC program is consistent with other programs around the nation, thus allowing for a fair comparison of results.

NAO contracted with the East Texas AHEC to coordinate the data collection process and complete the project’s technical aspects.

For the first stage of the pilot project, representatives from AHEC programs attending the Little Rock NAO Conference in 2002 were invited to participate. NAO requested they submit the six tables from their annual federal reports for 2000, 2001 and 2002 or as many reports as they had available. Twelve programs were able to provide information for the pilot project. A Microsoft Access® database was developed to store the data from the participating programs.

East Texas AHEC built a web interface that could produce reports from the database. The web interface utilized Active Server Pages (ASP) coding, which allows for easy manipulation of large amounts of data that will be beneficial once the database is put into practice. ASP coding can contain text, HTML, XML and scripts. ASP code was used to develop the online database because it has the ability to edit the contents of a web page in real time, which allows data to be viewed immediately as the information is collected.

(Continued on next page)

*Mr. Sullivan is
Community
Technology
Coordinator for the
East Texas AHEC.*

*Ms. Wainwright is
Deputy Director of
the
East Texas AHEC
Program.*

*Ms. Tijerina is
Data Coordinator for
the East Texas AHEC
Program.*

*Mr. Cohen is
Network Analyst for
the East Texas AHEC
Program.*

NAO Data Sharing Pilot Project

(Continued)

ASP coding also allows users to choose from a selection of criteria for data to be included in the report. To request a report from the database, the ASP code takes the request from the user and sends it to the server, accesses the database and returns the requested information to the user. Since the results are returned as a web page, the user can access the information using any Internet browser.

Customizing of web-based interfaces will also be accomplished more easily using ASP coding. Security of data is accomplished using ASP due to the fact that the coding cannot be viewed using the browser. This is not true of HTML, which allows users to view the source code of web pages designed using HTML. A final reason for using ASP coding would be the speed at which it handles the information requested and processing the results. Furthermore, proper ASP coding can free up network traffic during periods of heavy use, compared to other forms of programming.

Presently, the data input for testing purposes is done by a full-time employee of East Texas AHEC. Data gathered for testing was submitted either by fax or e-mailed as Microsoft Excel® spreadsheets. The East Texas AHEC data manager then keyed the data into the database as it arrived.

In the future, the web-based user interface will be simple enough to use so that each state AHEC program will have the ability to input its own state's data, directly, each year. This could occur at the AHEC center level or the program office level. Designated users will log into the system using an assigned password and enter data at their convenience. Each state AHEC program will also have access to view its past recorded data and compare them to the national aggregate.

The second stage of development will derive the level of access each user will be granted. Password protection will allow information to be hidden from some users while

other authorized users will have more viewing privileges. As users learn to use the database and interact with the web-based interface, changes can be made to allow more or less access to information and to add new calculations that will enhance the usefulness of the database.

The East Texas AHEC technical team is supporting and maintaining the database during the testing process. Daily backups and questions on submitting or viewing data are handled by this same group. The daily backups help secure the data and ensure the reliability and timeliness of the data stored in the database. In Stage Two of the development process a permanent server location for storing the database will be secured.

The NAO Committee on Research and Evaluation (CORE) is developing an evaluation process

that has great promise for better capturing the outcomes of the complex AHEC program. As that process moves forward, this NAO pilot data collection sharing project provides the foundation for building a consistent, useful, collaborative system that can adapt to future needs and opportunities. Other potential uses for the database include query-based map design, the ability to track an individual state's progress over a period of time, the ability to look at the AHEC program's impact for a group of states and to identify cumulative outcomes during several years.

The states participating in the program are Arizona, Arkansas, California, Florida, Kentucky, Missouri, New York, North Carolina, Oklahoma, Texas, Utah and Wisconsin. Other state AHEC programs are encouraged to become testing participants during the evolution of the AHEC reporting database. To include your AHEC program during the testing stage, contact Mary Wainwright (mary.wainwright@utmb.edu) or Brian Sullivan (bmsulliv@utmb.edu) at the East Texas AHEC.

'The NAO is grateful to several state AHEC programs that have volunteered data from past years in order to help create a realistic test scenario for the

AHEC-Track®

'The Technology is in Our Grasp'

By Janet A. Head, RN, MS, and Michael F. French

Generating, managing and reporting program data is an omnipresent challenge for all AHECs. In this case study, we describe the experience of the Missouri AHEC in collaborating with a private sector vendor to develop and implement an AHEC program data system (AHEC Track®). Our experience convinces us that, despite the challenges encountered, there is a need for a nationally standardized AHEC data collection and tracking tool.

In 1988, the Kirksville College of Osteopathic Medicine received funding to develop an AHEC program in Missouri. By 1993, the system included two regional centers, with the prospect of five additional centers and at least two additional cooperating medical schools. This growth, along with the increasing demand of funding agencies for program and outcome data, made clear the need for an effective data management and participant tracking tool. After purchasing and reviewing some of the systems developed by other AHECs, we decided to undertake development of a software system that would meet our current and, it was hoped, future needs. We also

recognized that we didn't have internal resources to take on that task.

In 1995, after soliciting proposals from a variety of potential developers, we established a partnership with ABT, Inc. — a Pennsylvania company specializing in development of software to support educational programs — to build a system to meet our needs. We hoped it also would have the potential to meet the needs of other AHEC programs. We installed the program in 1996. Eventually dubbed AHEC-Track®, the program was later purchased and is now maintained by ComQuip, Inc. of West Chester, Pennsylvania. The system runs on both Microsoft Access® and SQL Server®.

Being a relatively new AHEC program ourselves, we believed that such a system also could make it much simpler for new AHECs to establish their data collection and management processes or for those disenchanted with their existing systems to have an alternative to investing in personnel and time for development of software. ABT and, later, ComQuip hoped that the program would be marketable to other AHECs and eventually generate a user group large enough to support further expansion and refinement of the system.

Rewards

AHEC Track® provides a user-friendly interface and data entry screens that allow participating AHECs to enter and organize information related to programs, rotations and employment. To facilitate tracking, AHEC Track® also provides users with the ability to develop a historical log of contacts that sends periodic reminders

(Continued on next page)

Rationale

The goal of our development partnership was to produce a data management and participant tracking system that could:

- Gather and report the AHEC program data needed for required federal and state reports and funding requests;
- Track participants and programs in all AHEC areas (i.e., career recruitment, professional education and community and practice support);
- Document longitudinal interactions with program participants and participant outcomes (i.e., tracking from "cradle to grave");
- Be malleable to change as data demands, programs and funding agency expectations shift;
- Operate using in-house computer hardware and software, but be able to be maintained and upgraded without employing software development personnel in-house;
- Be networked, linked with other data systems and operated at multiple sites, if desired;
- Support administrative functions including standard and custom report generation, contact management and tabular and graphic data presentation; and
- Be affordable and stable.

to centers/program offices to update information. Once information is entered, AHEC Track® can easily produce the mandatory federal reports (CPMS tables) and provides the ability to customize data output through end user-developed Access queries.

Since 1996, the Missouri AHEC has entered all AHEC participants, including all levels of students, health professions preceptors and rotation sites, and all AHEC-sponsored programs into AHEC Track®. In addition to production of information necessary for the standardized Federal AHEC reports (the “six tables” and CPMS), we use the system to generate a variety of custom reports for federal and state funding agencies, reports for regional board and legislative partners, other funding applications and generation of lists and labels for participant tracking surveys. In its current form, the program has provided stable, reasonably bug-free operation on our in-house Novell network.

Challenges

A number of the challenges we encountered in the process of implementing AHEC Track® in Missouri grew out of the fact that a private vendor who makes an investment in developing a product such as this needs to realize a continuing return on investment to justify continued maintenance and development of the product.

If only a small core of AHEC programs use the software, as is currently the case, the incentive for continued development and improvement is also small. In addition, beyond the standard required Federal reports, it remains difficult to reach a consensus among AHEC programs (and, frequently, even among centers in the same program) as to what should be included in the software’s standard data set and features.

Modification of the core program to accommodate the needs and/or desires of each new or potential user has led to compatibility difficulties for “legacy” users and increasing up-front and maintenance costs for all users.

It has been noted by some AHEC programs that AHEC Track® entails a significant cost to implement and maintain (i.e.,

\$15,000 for initial single site license, \$2,000 per additional site, and a \$5,000 annual five-site maintenance plan) and may be too costly for some AHECs.

Given that it provides the data management capabilities needed to meet the reporting requirements of our federal and state funding agencies and to track AHEC participants for outcomes evaluation without the need to employ our own software developer/manager, we find the cost reasonable for us.

While we have found the program to be quite user-friendly, it is not “user-proof” and requires the ongoing availability of Microsoft Access® expertise within the AHEC and a well-developed training program for new users in the program offices and the centers who will provide, enter or manipulate the data. The training must be provided by an individual who understands both the AHEC Track® system and AHEC activities and requirements, criteria that are not likely to be met by an outside vendor. We have also found that the faster the computer and the better the network to which it is linked, the better the program works.

The relative benefits and challenges of entering data at one central location or providing data entry capability at each center continues to be an issue for discussion. The need to assure consistency and accuracy in the data entered has driven us to maintain data entry at the program office. All centers provide data on standardized forms, but the mode of transmission (i.e., electronic, mail, fax) differs from center to center. We make a copy of the core database available to centers via a password-protected account on our FTP server, thus enabling the centers to use their data directly through Access queries and reports. A number of other AHECs are working with the vendor on the development of tools for decentralized web-based entry specifically designed to maintain core database integrity and allow audit of data entered remotely prior to its inclusion in the main database.

Finally, AHEC Track®, like most or all other data management software, does not

(Continued on next page)



Janet A. Head, RN, MS, and Michael F. French are directors of the KCOM AHEC (Kirksville College of Osteopathic Medicine) in Jefferson, Missouri.



remove the need for efforts by AHEC staff to maintain contact with program participants to keep information current. While the software can manage data and facilitate contacts, staff time and effort is still required to make the contacts and update the data.

Conclusions

Despite the continuing challenges, we believe the results have been worth the effort. The resulting system has continued to meet most of our original goals and expand with our needs.

Our experience has, however, convinced us that there is a need for a nationally standardized AHEC data set that accurately reflects the outcomes of the AHEC program and is tied closely to an agreed-upon set of program goals consistent with both the legislative purposes and emerging national needs.

We also believe that the quest for better documentation of AHEC achievement would be best served by a standardized collection

and management tool that can assure that consistent data sets are readily available and of consistent quality. Such a tool should also be flexible enough to allow AHEC programs to collect and manage additional data needed to meet specific local and state requirements.

Leaving aside the question of whether the national consensus required can be achieved, our experience with a private vendor and the AHEC Track® program convinces us that the technology is in our grasp. Regardless of who produces the tool, there will need to be a critical mass of users nationwide to provide an adequate resource base to assure that the basic no-frills standard tool, technical support and periodic upgrades can be offered at an affordable price and that there is adequate incentive to continually improve the tool and make additional capabilities available to meet specific needs of individual AHEC programs.

Leadership...

Not by the seat of your pants

National AHEC Organization
2003 Leadership Conference
www.ohsu.edu/ahec/NAO

See conference web site for:

- Full Conference Agenda
- Instructions for Poster Session
- Information on Hotel Reservations
- Online Registration

August 20-23, 2003
Portland Marriott Hotel
Portland, Oregon

Georgia Statewide AHEC Network

'Where We Have Been to Where We Are Now'

The Statewide Electronic Reporting System

By *Detra M. Brown, MS*

The Georgia Statewide AHEC Network has developed an accurate and efficient electronic data collection and reporting process. Among the most appreciated results from this development include: faster data retrieval for Federal and state reporting requirements; clearer direction for grant writing and new program initiatives based on sound evaluation data; and the production, as needed, of a readily accessible and accurate "Statewide Overview" to the most recent month.

The development of the Statewide Electronic Reporting System (SERS), with supporting center level databases, was begun in 1996. The genesis for its development was the lack of software on the market at that time which would allow the collection and retrieval of data necessary for reports.

Frustration led to the commitment to provide resources and staff to create our own product. Today, the SERS system includes: a Continuing Education Database, a Health Careers Database, a Preceptor Clinical Training Database and the retrieval system for these databases which allows the program office to generate statewide data reports.

The databases reside at the center level and the retrieval system allows automatic reports to be generated and transmitted from these databases at agreed upon intervals. The program office collects the transmissions electronically and the system automatically generates standard reports and has the capacity to generate customized reports as needed.

The development of the SERS was a multi-phase exercise. Beginning in 1996, "special area groups" (i.e., preceptor coordinators, health careers coordinators, continuing education coordinators and center directors) were formed by the program office. Each group was charged with a variety of tasks including: identification of variables to be tracked and collected; determination of which

data elements were being collected and by what method; identification of data that should be collected in the future; definitions of common terms, and descriptions for all variables and identification of desired reporting formats.

The second phase of development began with reviews of existing mechanisms available for collecting information.

Subsequently, decisions were made as to which methods best met the needs of the Network. This required reviewing both federal and state reporting requirements and some forecasting of what data might be needed in the future. Additionally, six independent centers and the program office had to reach consensus on the strategy selected.

The third phase focused on developing a pilot database and system, which could be utilized and "tweaked," yet not interfere with the ongoing data collection needs of the centers and program office. The fourth phase involved development of universal instruments to collect data and a uniform format for reporting such data as collected. The final task during this phase was to determine the method of transmission from the centers to the program office.

Early work on the SERS was done on spreadsheets completed by each center and then submitted to the program office via postal mail each quarter, with some select reports being completed annually. Program office staff manually re-entered data into spreadsheets that compiled the individual centers' data into several statewide reports.

In FY 2001, SERS as it is known today was developed; it was implemented and fully functioning in FY 2002. The SERS is separated into two distinct sections, **data collection** and **reporting**. At this time, data collection includes three pipeline areas: health careers, continuing education and clinical training. A fourth database that will collect learning resources

(Continued on next page)



Ms. Brown is Associate Director of Evaluation and Research for the Georgia Statewide AHEC Network.

'Where We Have Been'

(Continued)

information is under development. Once completed, these four databases will collect data across the AHEC pipeline. The reporting section is the retrieval system, which automatically culls from the databases the information necessary to complete standardized or customized reports.

Data Collection

The Continuing Education (CE) Database captures each center's detailed information about CE programs and participants. The participants' information can be entered at the time of registration, (simultaneously capturing payment amounts and methods) and receipts can be provided. The database can generate name badges, mailing labels and certificates.

The Health Careers (HC) Database consists of individual student data, group activities, mentor data and program information.

It is linked to the Preceptor Clinical Training Database, which facilitates tracking across the pipeline, over time, and contains individual student/resident, graduate and preceptor data.

Some of the special features are "Student Rotations Care Plan," a specific timeframe providing the preceptor coordinator with an "at a glance" view of students involved with rotations and students s/he should be contacting.

Reporting

The six AHEC Centers electronically submit monthly reports to the program office. Annual reports are submitted by the centers at the end of each fiscal year and include information not necessary for quarterly reporting. The SERS captures individual center reports and automatically consolidates them into defined statewide report formats. At the program office, individual center reports and statewide reports can be viewed within seconds of receiving the electronic transmissions.

SERS promotes the accurate documentation of AHEC activities, and identifies and quantifies the activities within an AHEC, which in turn, supports the Network's validity. This system supports the reporting of accurate data to Federal and State government agencies. The collected data reflect the AHEC's accomplishments as they pertain to our mission. The indications provided by these collected data accurately measure the effectiveness of the AHEC's efforts towards increasing access to health care providers for rural and underserved Georgians.

The utilization of this electronic system has drastically reduced the person-hours needed in the past to generate reports. In summary, the SERS has been a successful investment for the State of Georgia.

Reports Routinely Collected and Produced Include:

- Continuing education participants by county for all 159 counties or by AHEC region. Example: 142 counties in the state of Georgia had participants attending AHEC continuing education programs;
- Continuing education participants by county and by ethnicity;
- A list of continuing education programs for the entire state of Georgia including number of participants for each program, CME/CE hours awarded and number of participants who attended because of licensure requirements;
- Alphabetical list of all cosponsors and partners for continuing education programs, by center, or by state;
- Total number of health career participants by audience type, ethnicity and by county;
- Type of health career program, i.e., presentation, camp, career fair, etc., and number of participants by county;
- A report by county of the health career alumni participating in preceptor clinical training and moving through the pipeline;
- Clinical training rotations by county and by discipline;
- Clinical training students/residents by discipline, ethnicity, gender and National Health Service Corps scholarships;
- An institutional report providing information regarding number of students/residents and number of rotations completed and by degree program type. Example: out of 34 institutions in the state of Georgia, 27 institutions had a total of 1,200 AHEC students completing 2,100 rotations;
- Total number of preceptors by county and;
- Retention reports capture by county and by discipline the number of students remaining in the region to work.

East Texas AHEC Comprehensive Data Collection Method

By *Laura Tijerina and Mary Wainwright, MS, RN*

One of the many challenges both AHECs and HETCs face is creating and maintaining an evaluation and reporting system. This evaluation process assists in documenting and describing program results. It also helps staff analyze the impact of those programs on the current health and health workforce issues.

System Development

East Texas AHEC developed a comprehensive data collection method that has been in place for nine years. Annually, the program office sends to its eight centers a packet of data collection tables in the form of Microsoft Excel® spreadsheets and a few Microsoft Word® documents for narrative reports.

This format has proven to be the “lowest common denominator” throughout the program. The tables are refined each year to meet federal requirements and to better help meet program and center reporting needs. Over the years the annual report evolved from 15 to the current 24 tables. The tables may be viewed online at www.etxahec.org/org/P&E%20WebForms.htm.

Center staff collect data throughout the year and, at the end of the fiscal year, electronically submit the requested Excel spreadsheets and work documents. A full time data coordinator in the program office collates and refines the data and produces final reports, a six-to-eight week undertaking.

The Excel® spreadsheets and Word® documents are a simple low-tech method to collect data. They provide an excellent “slice in time” picture of the work. However, this method does not provide longitudinal tracking of information about students and professionals nor does it capture information about students’ or professionals’ use of multiple AHEC center services.

East Texas AHEC utilizes AHEC Track® to support its longitudinal tracking needs. AHEC Track® is a client/server based system for managing information. The application has the capability to provide contact management functionality, track program participants, educational experience, clinical rotations and job placements.

At this time East Texas AHEC is utilizing only the clinical rotation aspect of the application. Last year all Community Based Education (CBE) reports came out of AHEC

Track®, including data of 917 health professions students with 150,240 training hours. This year, the AHEC will incorporate its longitudinal health careers promotions activities into AHEC Track®.

Center/Program Office Relationship in Data Collection

An important factor in data collection is the center/program office relationship. Center feedback has

been essential to the East Texas process, helping to clarify and improve the reporting process.

The growth in the number of tables collected is a result of center staff’s desire to build comprehensive reporting for their many activities. If staff determined there were valuable activities that did not fit in an existing table, they developed additional tables. Center and program office representatives recently reviewed the entire collection system with the specific objective of decreasing the number of tables. However, the group found that all the information was utilized and instead they added another table for information that had not been gathered previously.

(Continued on next page)

‘Although we all tend to grumble and groan about the efforts it takes to collect good data, analyze the results, and incorporate them into planning, we highly value indicators that help guide us to be more effective as a program and as individuals.’



Ms. Tijerina is Data Coordinator for the East Texas AHEC Program.



Ms. Wainwright is Deputy Director of the East Texas AHEC Program.

Comprehensive Data Collection Method

(Continued)

The program office communicates regularly with all AHEC staff to maintain consistency across the program. An annual orientation workshop introduces new employees to the data collection methods.

Five sections of information collected relate directly to program goals. The first three focus on health workforce, including health careers promotion, practice entry and support and community-based education. The fourth section is for the community health support program area and includes health education and community health systems. The fifth section collects general information related to organizational goals.

Workforce Needs

Health Career Promotion activities are reported in four categories (*see box below*). There are four practice entry and support tables. Two tables report participants' discipline, ethnicity and number of trainees from medically underserved sites. Both tables describe the location, topic, length, delivery method and accreditation of the program.

Community-based education tables list all available housing and a breakdown of housing operation expenses. Other student rotation information is collected via AHEC Track[®]. Reports are produced from AHEC Track[®] and center staff validate the accuracy of the reports.

Community Health Support

Two 2-part tables make up the Community Health Support section. In each case one part reports on the project/program/activity and the second reports on the participants. One table includes community health education projects typically targeted for specific populations, such as diabetes education. The other table collects information on community assessment projects, planning projects and implementation projects, relating to community health systems.

General Information

There are six table and Word file documents collected in the general section. One table is a cumulative record of all health professionals who have located in the region after an 'AHEC touch.' All partnerships including academic partners, hospitals and other agencies and organizations are listed as well as data on each center's promotional resources and diverse funding resources.

Data Usage

The data received from each center is compiled into one report. This information is vital and is used to complete the Competing Continuation Application and the Uniform Progress Report. It also helps in tracking program trends and establishing benchmarks.

The Planning and Evaluation Work Group utilizes the data to complete the cycle of planning/ implementation/ evaluation/planning. Two representatives from each center and the program office participate in the work group. Periodically, an ad hoc committee from the larger work group analyzes the data in light of program goals and objectives. The resulting report in turn influences strategic planning for the program and individual centers.

Although we all tend to grumble and groan about the efforts it takes to collect good data, analyze the results and incorporate them into planning, we highly value indicators that help guide us to be more effective

as a program and as individuals.

Health Career Promotion Activities Reported

- **Episodic events** — short contacts with individuals or groups, i.e., career fairs or health career activities where any group or individual benefits from AHEC services one time.
- **Enrichment Activities** - programs/ projects that commit significant amounts of time, or longitudinal programs to individuals or groups, i.e., summer camps, mentoring programs, etc. "Longitudinal" is defined as health career activities in which any select group or individual benefits from AHEC services beyond a one-time visit. Also reported are numbers of "program completers" of enrichment programs, as well as numbers of these "program completers" who matriculated into a health professions training program.
- **Work with schools and school districts** — One table lists all schools and another gathers information on programs for teachers and counselors.
- **Tracking of outcomes** — Staff requests the number of participants in enrichment activities who matriculate into health science programs and their underrepresented/disadvantaged populations status. This information is part of AHEC's program-wide evaluation plan.

Mid-Carolina AHEC, Inc., South Carolina

Define, Document and Demonstrate: AHEC Delivers!

By Cheri C. Plyler

As a regional AHEC center without an associated medical residency program, Mid-Carolina AHEC, Inc., in Lancaster, South Carolina, identified student support services as an opportunity to enhance the recruitment and retention efforts for primary care providers.

Recognizing that the inter-organizational nature of the AHEC system offers an abundance of local, regional and state resources, connectivity to the communities and opportunities for new partnerships, the Mid-Carolina AHEC staff initiated a student rotation that utilizes AHEC's infrastructure and network as a neutral entity to provide quality educational experiences for students in rural areas.

The Mid-Carolina AHEC success story begins with the interchange of ideas, expectations, available resources and shared vision by all partners — local, regional and state. The foundation of the success is based on the evaluation process associated with the efforts at all levels and phases of the program's development.

Quantitative and qualitative evaluation feedback provided precision data to effectively direct the program's direction and resource allocation. Each aspect of the process was evaluated in detail, with review and revision by all parties. With clearly defined outcomes at each stage, the evaluation feedback was key to the program's development, playing an integral role in trust and relationship building.

As all parties begin to recognize the impact of AHEC's ability to effectively respond to the evaluation feedback and to communicate the feedback to its partners, the opportunity for broader collaboration is acknowledged and appreciated.

Working with the assumption that a quality educational experience would be the incentive to meet the academic program's goals and expectations, attract interested students to the region and serve as an ongoing recruitment and retention tool for primary care providers, a multidimensional evaluation process became the program's driver.

Evaluation tools were developed to assess all levels and stages of development of the student support services process. A list of defined skills, resources and characteristics associated with preceptors, practice sites, educational material, housing/meals and AHEC faculty support for off-site rotations were identified through research literature and academic faculty involvement.

Preceptors and practice sites were identified by criteria established by the academic center based on the practice size, patient population, diversity of practitioners and patient population, as well as the practice site's proximity to the nearest residency site. Preceptors and practice sites were assessed by agreed upon criteria that supported both the literature and academic program requirements.

Educational materials assessed six factors including support services associated with local resources such as Internet and laptop computer access, Grateful Med/Pub Med training and available books, journals, articles and audio/video tapes.

Housing/meals criteria assessed six factors, including safety, comfort and accessibility to practice site, nutrition and cleanliness. Criteria for AHEC faculty included six factors assessing the coordination, orientation and connectivity of available resources of the local community to the student.

(Continued on next page)



Ms. Plyler is Director of the Mid-Carolina AHEC, Inc., in Lancaster, South Carolina.

With resource allocation a major concern, the evaluation process was also utilized to assist in focusing AHEC efforts in the most cost effective manner. Students were asked to rank order a list of eight local support services available in the region that they felt were the most important and that would facilitate a quality educational experience. The original data set consisted of 20 students ranking services from the most important to the least important (*see box on this page*).

As confirmed by the literature, housing/meals is the number one priority for students traveling away from academic centers. However, statistically, students ranked the availability of AHEC faculty equal to that of housing/meals. In order to affirm the validity of data and analysis, AHEC initiated a third party evaluation (contract).

Consistently strong evaluations supporting the local AHEC's ability to meet the

needs of the student were the catalyst for ongoing relations with AHEC's academic partners and the development of the student services program.

The academic center also required that the students meet five Critical Success Factors, each assessing two or more components associated with the student's educational experience, and that these benchmarks be evaluated.

Prior to the return of the student to the academic center, a summary of the evaluation was compiled and forwarded to the academic faculty for review with the student.

While building a new program it is paramount to measure

every aspect of the process; the aspects one entity believes are insignificant may be of the utmost value to a collaborating partner. The ability to define expected outcomes, establish criteria that will reach and/or exceed the expected outcomes of all partners, and the flexibility and latitude to review and revise the process as indicated by the evaluation tools is key to successfully improving the services and programs that AHEC provides.

As AHECs across the nation work through times of decreasing resources, there will be opportunities to forge new partnerships, to be creative in our approach to familiar issues and to redefine ourselves. Our challenge is to remain flexible enough to meet the changing needs of the health care environment while maintaining the high quality and integrity of the educational process. We must be able to define, refine, evaluate, document and effectively market our accomplishments.

'As AHECs across the nation work through times of decreasing resources, there will be opportunities to forge new partnerships, to be creative in our approach to familiar issues and to redefine ourselves.'

Student Ranking of Services: Most Important #1; Least Important #7.

- 1) Housing/Meals
- 2) Availability of AHEC faculty
 - a. Community Orientation
- 3) Internet Access, for checking E-mail
- 4) Literature Searches
- 5) Article Retrieval
- 6) Grateful Med Training
- 7) NCME tapes

Program Evaluation for Novices

By Ann Chester, PhD; William Brown, PhD; Sherron McKendall, PhD; Nancy P. Moreno, PhD; Connie Phillips, MA, MPH

You don't need a PhD in evaluation to do it well. Evaluation is logical and need not be difficult. Often, we are evaluating without realizing it. We're just not using the jargon.

Why is it important to evaluate? Two main reasons are 1) to show the value of a program and 2) to show what program improvements are needed. The purpose of this article is to try to simplify evaluation into 11 basic steps to help the beginner. Evaluation works best when the entire team working on the program understands the importance of the evaluation process.

Step 1: Determine the goals. Any evaluation plan starts with a careful examination of the program's goals¹. This provides the framework to design your evaluation and, ideally, should be created while goals are being established and before the program starts.

To determine project goals, ask *What do you want to achieve? What changes do you want to see?* An example might be: "We want to increase the number of health professionals who originate from underserved populations." To clarify the goals, have all those involved in the project, such as students, patients, teachers, the evaluator (*see Step 8*) or other stakeholders help delineate the goals.

Step 2: Determine the objectives. Objectives must be measurable so you can quantify the change due to your programming. An example might be: "We will provide summer programs for 100 students from underserved backgrounds that increase their interest in health careers."

Parameters can vary widely and include program aspects such as number of participants, attitude, interest, content, knowledge acquired by participants, etc. Determine if there is a change in an important parameter measured before and after your program. In the example above, objectives are

to reach 100 students (quantifiable by counting number of participants) and to increase their interest in health careers (quantifiable by assessing the attitude of each participant with a survey before and after the program).

Step 3: Identify the evaluator. The evaluator(s) can be internal or external to the program. Internal evaluators can be more attuned to the goal(s)/objective(s) of the program, be present for most programmatic activities, cost less and can thus help construct and carry out an evaluation plan. However,

they can be too close to the program and introduce bias.

An external evaluator(s) may be more objective during the data collection and analysis. External evaluators are usually more costly, but may bring useful insights into the process, especially seen through the eyes of a funding

agency. The decision to choose an internal or external evaluator should, nevertheless, be based on the evaluator's experience and ability to complete the tasks. A combination of the two is often best. A new evaluation paradigm is the use of peer evaluators, project directors of similar programs who can be "critical friends" in the evaluation process^{2,3}.

Step 4: Determine how to measure objectives. There are two types of program evaluation: formative and summative. Formative evaluation is ongoing and guides programmatic change⁴. In the example "We want to increase the number of health professionals who originate from underserved populations," formative evaluation would help design experiences and enrichment activities that help the participants sustain an interest along the way. Continuously tweaking your program according to feedback is formative. Summative evaluation determines the extent to

'The average cost of an effective program evaluation is 10 to 15 percent of your budget. This cost will decrease with time, especially if you choose computer analyzed web-based instruments.'

Dr. Chester and Dr. McKendall are at West Virginia University in Morgantown, West Virginia.

Dr. Brown is at Carnegie Mellon University in Pittsburgh, Pennsylvania.

Dr. Moreno is at Baylor College of Medicine in Houston, Texas.

Ms. Phillips is at Boston University School of Medicine in Boston, Massachusetts.

(Continued on next page)

Evaluation for Novices

(Continued)

which a program's goals and objectives were met. Essentially, summative evaluation answers the question, "Did the program accomplish what it set out to accomplish?"⁵

In the above example, the summative evaluation would show whether the program successfully targeted the number of underserved students and potentially created more health professionals from this population. Both formative and summative evaluations are needed to evaluate a program.

Different kinds of information can be collected about a program's effectiveness. Any information that can be represented and analyzed numerically, such as test scores, is considered quantitative.

Qualitative data usually consist of narrative descriptions. Sometimes, qualitative information can be transformed into quantitative data through the use of a coding or grouping system. An example is a Likert-type scale, in which participants are asked to express agreement with a statement using a five-point scale (1 = strongly disagree.... and 5 = strongly agree).⁶ In general, quantitative approaches are useful for summarizing large numbers of responses. Qualitative approaches usually provide very detailed information about a

smaller number of individuals or cases. Most programs use a mix of qualitative and quantitative approaches.

When assessing the affect of a program on participants, assess both knowledge (content acquisition) and changes in participants' attitudes. The stated goals and objectives will determine whether you measure content knowledge or change in attitudes or both.

Step 5: Determine assessment tools. (see "Toolbox" on next page). Since evaluation funds will undoubtedly be limited, several key questions can help determine the types of information to be collected.

- ◆ Who will use the information and for what purposes?
- ◆ What kinds of information are needed and when?
- ◆ What resources are available to carry out the evaluation?

Consult with an experienced program manager or evaluator early in the development of program goals, objectives and evaluation plan. Or, study similar, successful programs and emulate their approaches to evaluation. The more thorough the planning at the onset, the more successful the project is likely to be.⁷

A good *instrument or tool* can be easily answered by participants. For instance, in a written pre/post test, the language level must be age appropriate, and the test must be just long enough to keep students' interest while it extracts the exact information sought. Input from several stakeholders may help refine the instrument.

The instrument or tool should be reliable or consistent. The goal is to develop an instrument and a process that is the same every time, minimizing, to the best of your ability, any uncontrollable factors that can lead to inconsistent results.

Validity, or the extent to which the instrument measures what it intends to measure, is also critical. Both reliability and validity are complex and often require hiring someone familiar with all the parameters. Seek help in this area if you need to.

One effective approach for handling data from questionnaires and surveys is to use web-based instruments to import data directly into a

(Continued on next page)

Some useful sources of guidance are listed at the National Association of Health Science Education Partnerships website under activities (see www.nahsep.org).

Evaluation Tips

- ◆ **Use formative evaluation** to make changes in the program. Nothing is written in stone and making changes demonstrates that you are on task.
- ◆ **Ask for help if needed.** There are evaluation resources on the web, on CD and in print, as well as within networks of program directors just like you.
- ◆ **Be sensitive** to the participants' time. You may wish to provide compensation, such as a stipend, college credits or, at least, refreshments.
- ◆ **Always ask participants** to return an evaluation at the time of the evaluation; don't rely on participants to mail it.
- ◆ **Distribute the evaluation survey** or questionnaire while participants are still alert and engaged. If you wait until participants are about to leave, they may not be as attentive to answering questions fully.
- ◆ **Ensure confidentiality** when responses to questions are to be shared with others. Consult with experts in the collection of data from human subjects. Otherwise, all responses must remain anonymous.

Evaluation for Novices

(Continued)

database. This process reduces paper consumption, eliminates human error in data entry, expedites delivery of results and reduces effort and time for participants' completion of surveys. A web technician can easily place any written instrument on the web so that participants can access it from any web-connected computer.

Effective evaluation need not be complex or expensive. Choose the simplest way to gather and analyze program-related information.

Step 6: Determine target population(s).

There may be more than one population to track. For example, a student-focused program could potentially impact students, but also instructors and parents. Decide if you want to assess all or some of these populations.

Step 7: Determine when to use measurement. When is an optimal time to give a pre/post test? Conduct the assessment at a time when participants are most likely to cooperate. Allot a specific amount of time when participants are fully engaged.

Step 8: Determine where the intervention should take place for the best results. Make the location convenient, comfortable, relaxed and friendly. Consider providing incentives, such as stipends or food. Choose the location and room setup to maximize confidentiality.

Step 9: Now it's time to evaluate! Use the tools you've chosen and the decisions you've made in the steps above.

Step 10: Analyze the results. If the following paragraph is too complex, hire an expert to help you analyze your data.

"Decision trees" help you choose the correct test for the available data. It is possible to define an appropriate statistical test using any standard software package such as Minitab or Excel. The true value of having the investigator look at the data is the discovery of patterns or themes within the data that were not necessarily part of the original evaluation. These patterns can be found both in qualitative and quantitative data from surveys and tests. These are found, sometimes serendipitously, through creative examination of program information. Be alert for unexpected themes.

Step 11: Use your evaluation to improve

(formative) and demonstrate (summative) your program's effectiveness. The evaluation process is as simple or complex as you wish to make it. You need not evaluate in a vacuum — ask for assistance and be prepared from the beginning to pay for the needed resources.

The average cost of an effective program evaluation is 10 to 15 percent of your budget. This cost will decrease with time, especially if you choose computer analyzed web-based instruments.

Evaluation Tool Box

Questionnaire: in-depth and precise questioning of a population of participants, which collects quantitative and/or qualitative.

Focus group: gathers together a number of persons from the population and discusses topics relevant to the evaluation. The group interactions may produce robust data that can enhance the formation of other tools as well as direct programmatic improvement.

Observations: can provide detailed information about individual and group behavior. These observations are recorded and quantified using a predetermined checklist. Possible drawbacks include observer bias and the possibility of the presence of the observer affecting the participants' behavior.

Pre/Post Test: asks the same set of questions of the participants at the outset and at the conclusion of the intervention. The results are compared to see if progress was made.

Retrospective pre/post test: asks a single set of questions only at the conclusion of the program but asks participants to compare the before and after effects.

Footnotes

¹ Matyas, M.L., Ph.D. 2001. Planning and Effective Program Evaluation: A short course for project directors (free). American Physiological Society, Bethesda, MD.

² National Association of Health Science Education Partnerships. WWW.NAHSEP.ORG, 2/04/03

³ Howard Hughes Medical Institutes. WWW.HHMI.ORG, 2/04/03

⁴ Baker J. Evaluating the impact of development projects on poverty: A handbook for practitioners. Directions in Development, World Bank, Washington, DC 2000. <http://www.worldbank.org/poverty/impact/methods/datacoll.ttm>.

⁵ Huberty, CJ, Klein, GA. On evaluating the impact of an innovative educational project. Journal of Research and Development in Education 1996;29(2):89-93.

⁶ Likert, R. A technique for measurement of attitudes. Archives of Psychology, 1932. 140.

⁷ Stevens, F., Lawrenz, F., Sharp, L. 1993. User-Friendly Handbook for Project Evaluation: Science, Mathematics, Engineering and Technology Education. National Science Foundation. Washington, DC. US Government Printing Office. NSF93-152.

Program Evaluation – *Principles, Practices and Effectiveness*

By Judith Woodruff

Program evaluation has become a fact of life for most nonprofit organizations. In the current highly competitive and politically charged funding environment, nonprofits must supply evidence of their social impact. They use various evaluation methods to assess their effectiveness, demonstrate their community value, provide useful information and meet the demand of the public and of funding sources.

Benefits of Program Evaluation

Some people feel they cannot engage in evaluations without extensive training, or without purchasing very expensive consulting expertise. In fact, with some basic knowledge and understanding, evaluation can be done by most organizations with their regular resources — and can be integrated into routine work activities in a way that complements program delivery.

Evaluation is intended to examine not only “did it work or not” but also for whom, where and under what circumstances. Evaluation helps program administrators and planners identify barriers to successful implementation and delivery; it also assists in program redesign and development.

An evaluation opens up communication

among leaders of the organization, managers and staff. The process facilitates analytical thinking and honest discussions about the program. It provides an opportunity to revisit goals, and to bridge any existing gaps between the vision of the program and the reality of program operations.

Evaluation also assists in consideration of resource allocation, including human, fiscal, physical, information and technological resources. It helps program leaders articulate for themselves what they are learning about the program or organization. A deliberate evaluation helps to delineate issues, describe strategies and highlight areas where further work is needed — and provides a chance to stop and celebrate successes that have been achieved, something most programs rarely do. Evaluation helps to focus thinking, gain new insights and identify opportunities for improvement.

Different people may be involved at different points in a program evaluation — designing the evaluation, conducting the evaluation and being a source of information. Who participates depends on the structure of the organization and on the program being evaluated.

These individuals will bring different perspectives to the evaluation that will enrich the findings.

As a funding partner, Northwest Health Foundation is conscious that nonprofits work with limited resources and fight a constant battle for survival. The Foundation sponsors a “Learning Laboratory” workshop series designed to foster nonprofit organizational strength and expertise.

Evaluation Strengthened at Oregon AHEC Program

Using principles from Northwest Health Foundation’s Program Evaluation workshop, the Oregon AHEC program has strengthened the evaluation component of its annual Med ★ Stars summer intensive health career program with an extensive written participant evaluation, focus group interviews with the leadership trainers (a new support role that resulted from the previous year’s evaluation), a staff debriefing and formal demographic analysis.

The demographic data showed a large preponderance of females, so marketing was adjusted to appeal to men. The anonymous participant surveys gave attendees freedom to be very specific when mentioning program staff. As a result, training was revised to prevent further problems. Participant surveys also indicated that they liked to do activities with others, so independent studies were changed to team projects.

The staff debriefing session focused on solutions as well as challenges, such as dealing with an unacceptable ‘no-show’ rate.

(Continued on next page)

Principles, Practices and Effectiveness

(Continued)

NWHF's signature workshop, "Program Evaluation – Principles and Practices," is designed as an opportunity to explore the essentials of good program evaluation. The goal is to introduce the concepts and tools for developing an effective evaluation, provide one-on-one consultation with the presenter to create the evaluation and a follow-up presentation on the implementation of the evaluation.

Participating organizations target a project for which they have received NWHF funding. Each organization is able to examine the most effective methods to use as it develops an evaluation plan for the project, or to refine an evaluation plan already in place for a NWHF Project. The workshop is designed to provide the tools necessary in a real-world situation.

For example, with funding from Northwest Health Foundation, Umpqua Community College in Roseburg, Oregon, has been developing a community-based nursing curriculum. Making use of their experience in the Evaluation Learning Laboratory, project leaders created a matrix of evaluation methodology to support the core concepts of their project.

The evaluation matrix includes focus groups with students and faculty about the curriculum design and clinical experiences; multiple choice exams to test students' knowledge of community-based nursing practice; student development of a community-based resource notebook; and journaling by students about their experiences in the program. A side benefit of the evaluation development led to a separate matrix to help students keep track of their own progress, including instructor evaluations of the student nurse, site staff evaluations of the student and the student's own evaluation of the clinical experience.

Yachats Community Health Clinic, located on the central coast of Oregon, has delegated the work of program evaluation to its Board of Directors. Board members attended the Program Evaluation course and together developed a matrix of methods to

support their core concepts, identifying sources of information that ranged from document review (clinic records), to surveying and interviewing patients, to using focus groups.

A number of concerns are often raised at the beginning of evaluation efforts. A primary issue is with identifying appropriate and affordable expertise. A second problem relates to conceptualizing the evaluation — what is to be evaluated? When? For whom and for what purposes?

It may take considerable discussion to reach agreement on framing the plan. Then, how will it be implemented and who will be responsible are the next concerns for any organization. Concerns about methodology run throughout the process, as do concerns about the costs of the evaluation in terms of staff, time, supplies and other resources. The final concern frequently rests on the uses of evaluation findings. These concerns may be avoided if there is discussion and agreement from early in the process. Even meeting all these concerns, evaluation is often met with resistance and skepticism.

While each situation is unique, agreement upon the purposes of the evaluation, public sharing of these purposes and adherence to the purposes and scope of the evaluation will help establish the authenticity of the effort. Energy should be invested by the leaders of the evaluation to build buy-in for the value of evaluation. Roles and tasks should be clearly defined early in the process, and leaders should implement mechanisms for reporting, sharing of findings, updates and airing of concerns.

The Northwest Health Foundation aims to help programs succeed by reducing the fears and anxieties of program leaders about evaluation through the development of skills and competencies in basic evaluation methods. We hope that this support also improves the ability of these leaders to plan for evaluation, to integrate evaluation into program planning and management and to document the outcomes of their work.

For information on the Northwest Health Foundation's Learning Laboratory and workshops, visit: www.nwhf.org



Ms. Woodruff is Director of Grant Programs for Northwest Health Foundation. She was formerly a lawyer, most recently serving as Assistant Attorney General in the Oregon Department of Justice Charitable Activities Section.

AHEC Program and Center Contact Information

ALABAMA AHEC

Phone: (251) 461-1800

Web site:

<http://ualvm.ua.edu/ruralmed/RuralAlabamaAHEC.html>

AHEC Centers:

- **Southwest**, (215) 679-7778
- **Rural Alabama**, (205) 348-1345
- **Southeast**, (334) 670-5735

ARIZONA AHEC PROGRAM

Phone: (520) 318-7151

Web site: www.azahec.org

AHEC Centers:

- **Southeast**, (520) 287-4722
www.azahec.org/centers/seahec/
- **Western**, (928) 627-9222
www.azahec.org/centers/wahec/
- **Northern**, (928) 774-8341
www.azahec.org/centers/nahec/
- **Eastern**, (520) 318-7151 ext. 230
www.azahec.org/centers/eahec/
- **Maricopa**, (602) 305-7556
www.azahec.org/centers/mahec/

ARKANSAS AHEC PROGRAM

Phone: (501) 686-5260

Web site: www.uams.edu/ahec/ahec1.htm

AHEC Centers:

- **South**, 870-862-2489; www.uams.edu/ahec/AHEC22.HTM
- **Northeast**, 870-972-9603
www.uams.edu/ahec/AHEC25.HTM
- **Pine Bluff**, 870-541-7611
www.uams.edu/ahec/AHEC21.HTM
- **Northwest**, 479-521-8260
www.uams.edu/ahec/AHEC20.HTM
- **Fort Smith**, 479-785-2431
www.uams.edu/ahec/AHEC24.HTM
- **Southwest**, 870-779-6000
www.uams.edu/ahec/AHEC23.HTM
- **Delta**, (870) 338-9100
www.uams.edu/ahec/AHEC34.HTM

CALIFORNIA AHEC PROGRAM

Phone: (559) 241-7650

Web site: cal-ahec.org

AHEC Centers:

- **Central Coast**, (831) 424-4359
- **Drew AHEC**, (323) 563-4800
- **Multicultural**, (323) 780-7640
- **Orange County**, (949) 863-0030
- **San Diego Border**, (619) 691-7230
- **San Francisco Community**, (415) 206-4478
- **San Joaquin Valley**, (559) 446-2323
- **Shasta Community**, (503) 246-5704
- **South Bay**, (408) 289-9260
- **Wilmington/Los Angeles Port**, (310) 534-6222

Editor's Note: Information on these pages was requested from the individual AHEC Programs. Some information was provided by the Federal AHEC/HETC Office in Rockville.

COLORADO AHEC PROGRAM

Phone: (303) 724-0330

Web site: www.uchsc.edu/ahec

AHEC Centers:

- **Centennial**, (970) 330-3608; www.cahec.org
- **Central**, (303) 422-2483; www.centralcoahec.org
- **San Luis Valley**, (719) 589-4977; www.slvahec.org
- **Southeastern**, (719) 544-7833; www.secahec.org
- **Western**, (970) 434-5474, Ext. 10; www.wcahec.org

CONNECTICUT AHEC PROGRAM

Phone: (860) 679-3675

Web site: www.connecticutahec.org

AHEC Centers:

- **Eastern**, (860) 886-1424; www.easternctahec.org
- **Central**, (860) 233-7561; www.centralctahec.org
- **Northwestern**, (860) 482-3426; www.ahecofacareer.com
www.nwctahec.org; www.healthcareersinct.com
- **Southwestern**, (203) 396-8380; www.swctahec.org

DISTRICT of COLUMBIA AHEC

Phone: (202) 994-0659

AHEC Center:

- **DC AHEC Center**, (202) 638-0252

UNIVERSITY OF SOUTH FLORIDA AHEC PROGRAM

Phone: (813) 974-3507

Web site: www.hsc.usf/AHEC

AHEC Centers

- **Gulfcoast North**, (813) 631-4350; www.gnahec.org
- **Gulfcoast South**, (941) 361-6602; www.gsahec.org

UNIVERSITY OF FLORIDA AHEC PROGRAM

Phone: (352) 265-8026

Web site: www.f_ahec.org/NFAhec/

AHEC Centers:

- **Big Bend**, (850) 224-1177; www.flahhec.org/NFAhec/
- **Suwannee River**, (386) 462-1551; www.srahec.org/
- **Northeast**, (904) 482-0189; www.nefahec.org/
- **West**, (850) 682-2552

UNIVERSITY OF MIAMI AHEC, FLORIDA

Phone: (305) 243-2847

Web site: www.flahhec.org/directory.html#um

AHEC Centers:

- **Miami Dade**, (305) 275-6663
- **Florida Keys**, (305) 743-7111
www.ruralhealth-floridakeys.org/ahec1.htm

NOVA SOUTHEASTERN UNIVERSITY COLLEGE OF OSTEOPATHIC MEDICINE AHEC, FLORIDA

Phone: (954) 262-1588

Web site: www.flahhec.org/directory/html#nova

AHEC Centers:

- **Everglades**, (561) 889-1099
- **Central Florida**, (407) 8892292

AHEC Program and Center Contact Information

MERCER COLLEGE OF GEORGIA AND THE MEDICAL COLLEGE OF GEORGIA GEORGIA STATEWIDE AHEC NETWORK

Phone: (706) 721-8331

Web site: www.mcg.edu/ahec/

AHEC Centers:

- **Three Rivers**, (706) 660-2499; www.threeriversahec.org
- **Blue Ridge**, (706) 235-0776
www.blueridgeahec.rome.ga.us
- **Foothills**, (770) 533-6866; www.mcg.edu/ahec/fthills
- **Magnolia Coastlands**, (912) 871-1050
www.mcg.edu/ahec/mcahec
- **SOWEGA**, (229) 439-7185; www.sowega-ahec.org
- **SPCC-Atlanta**, (404) 761-7900; www.atlantaahec.org

MOREHOUSE SCHOOL OF MEDICINE AHEC, GEORGIA/ALABAMA

Phone: (404) 752-1624

Web site: www.msm.edu

AHEC Centers:

Web sites: all except Tuskegee can be accessed through

www.mcg.edu/ahec

- **Southeastern Primary Care Consortium**, (404) 761-7900
www.mcg.edu/ahec/atspc.htm
- **Magnolia Coastlands**, (912) 681-0371
- **Southwest Georgia (Sowega)**, (229) 439-7185
- **Three Rivers**, (706) 660-2499
- **Blue Ridge**, (706) 802-5232
- **Tuskegee**, (334) 727-0550; www.tahec.org

HAWAII/PACIFIC BASIN AHEC

Phone: 808-956-9761

Web site: www.ahec.hawaii.edu

AHEC Centers:

Web sites: all Hawaii/Pacific Basin AHECs can be accessed through

www.ahec.hawaii.edu/offices.htm

- **Ke Anuenue**, (808) 935-8658
- **Na Lei Wili**, (808) 246-8986
- **Pala**: 011-680-488-2001; www.ahec.hawaii.edu/offices/htm

ILLINOIS HEALTH EDUCATION CONSORTIUM/ AHEC

Phone: (312) 996-9989

Web site: www.ihec.org

(All Centers can be accessed through this web address)

AHEC Centers:

- **Latino Communities**, (312) 355-3446
- **Immigrant/Refugee**, (312) 996-8980
- **Ujima**, (630) 515-7422
- **Western Illinois**, (217) 223-0452
- **Northern**, (815) 395-5848

INDIANA AHEC PROGRAM

Phone: (317) 278-8893

Web site: www.ahec.iupui.edu

AHEC CENTERS

- **West Central**, (812) 237-9688; www.indstate.edu/wci-ahec
- **Northwest**, (219) 980-6561

KENTUCKY AHEC

Phone: (502) 852-7159

Web site: www.louisville.edu/medschool/ahec

AHEC Centers:

- **Purchase**, (270) 762-4123; www.purchaseahec.org
- **West**, (270) 824-3442; www.westahec.org
- **South Central**, (270) 745-3325; www.wku.edu/scahec
- **Northwest**, (502) 778-1607
- **Southern**, (859) 985-7302; www.mc.uky.edu/ahec/sou.htm
- **North Central**, (859) 655-8037; www.mc.uky.edu/ahec/ncahec.htm
- **Northeast**, (606) 784-2432; www.neahec.org
- **Southeast**, (606) 439-6791; www.mc.uky.edu/ahec/seahec

LOUISIANA STATE UNIVERSITY AHEC

Phone: (504) 568-4006

AHEC Centers:

- **South East**, (504) 568-3718
- **Southwest**, (337) 989-0001; www.swlahec.com/

LSUHSC - SHREVEPORT AHEC PROGRAM OFFICE

Phone: (318) 675-6571

Web site: www.ahec-lsuhs-c-s.org (Under development)

AHEC Centers:

- **North**, (318) 686-2441; www.nlahec.org
- **Central**, (318) 443-2855; www.sclahec.com/

MAINE STATEWIDE AHEC PROGRAM

Phone, (207) 283-0170, ext. 2353

Web site: <http://www.Maine-AHEC.org>

AHEC Center:

- **Acadia Health Education Coalition**, (207) 733-4821

MARYLAND AHEC PROGRAM

Phone: (410) 706-1742

Web site: <http://ahec.umaryland.edu>

AHEC Centers:

- **Western**, (301)-777-9150; <http://ahec.umaryland.edu>
- **Eastern Shore**, (410) 221-2600; <http://www.esahec.org>

MASSACHUSETTS STATEWIDE AHEC PROGRAM

Phone: (508) 856-4305

Web site: www.umassmed.edu/ocp/programs/ahec.cfm

AHEC Centers:

- **Pioneer Valley**, (413) 787-6756
- **Boston**, (617) 534-5258
- **Central**, (508) 756-6676
- **Southeastern**, (508) 583-2250 ext. 214
- **Merrimack Valley**, (978) 685-4860
- **Berkshire**, (413) 447-2417; www.berkshireahec.org

MINNESOTA AHEC

Phone: (612) 625-3972

Web site: www.mnahec.umn.edu (under construction)

AHEC Center:

- **Northeast** (site and contact information being developed)

AHEC Program and Center Contact Information

MISSISSIPPI AHEC PROGRAM

Phone: (601) 984-5411

Web site: under construction

AHEC Centers (contact Program Office for information):

- Delta
- Southwest
- Philadelphia

KIRKSVILLE COLLEGE OF OSTEOPATHIC MEDICINE MISSOURI AHEC PROGRAM

Phone: (660) 626-2887

Web site: www.mahec.org

AHEC Centers:

- Northeast, (660) 385-6491; Web site under construction
- Southeastern, (573) 785-2444; www.semoahec.org
- Southwest, (417) 836-8348; www.ahec.smsu.edu

SAINT LOUIS UNIVERSITY MISSOURI AHEC PROGRAM

Phone: (314) 577-8527

Web site: <http://medschool.slu.edu/comfam/index.phtml?page=sluahecpogramA>

AHEC Center:

- East Central, (314) 721-9979
www.ecmoahec.org/ecmoahec.html

UNIVERSITY OF MISSOURI - COLUMBIA AHEC PROGRAM

Phone: (573) 882-0068

Web site: www.hsc.missouri.edu/~ahec/muahec.shtml

AHEC Centers:

- Mid-Missouri, (573) 364-4797; www.midmoahec.org
- Northwest, (816) 271-7146
www.heartland-health.com/body.cfm?id+1257
- West Central, (816) 889-5055, ext. 308; www.wcmoahec.org/

NEBRASKA AHEC PROGRAM

Phone: (402) 559-8946

Web site: www.unmc.edu/RHEN/ahec.htm

AHEC Centers:

- Central, (308) 385-6677; www.cn-ahec.org
- Northern, (402) 644-7253; www.nnahec.org

NEVADA AHEC PROGRAM

Phone: 775-784-4841

Web sites: www.unr.edu/med/sahecklk.html and
www.highsierraahhec.org/

AHEC Centers:

- Northeastern, (775) 738-3828
- Southern, (702) 318-8452; www.unr.edu/med/sahecklk.html
- High Sierra, (775) 827-2432; www.highsierraahhec.org/

NEW HAMPSHIRE AHEC

Phone: (603) 650-1931

Web site: www.dartmouth.edu/~ahechome/

AHEC Centers:

- Northern, (603) 444-4461; www.nnhahec.org/
- Southern, (603) 895-1514; www.snhahec.org/

NEW JERSEY AHEC

Phone: (856) 566-7133 or (856) 566-6069

Web site: www.njahec.org

AHEC Centers:

- Shore, (856) 697-2967
- Garden, (856) 507-7860 or (856) 507-7868
- Camden, (856) 963-2432
www.camden-ahhec.org/ca-index.html

NEW MEXICO AHEC PROGRAM

Phone: (505) 272-2095

Web site: <http://hsc.unm.edu/som/outreach/Dept/ahec.html>

AHEC Centers:

- Southern, (505) 646-3441; www.nmsu.edu/~soahec
- Montanas del Norte, (505) 454-2583

NEW YORK AHEC PROGRAM

Phone: (716) 898-4699

Web site: www.ahec.buffalo.edu

AHEC Centers:

- Western New York Rural, (585) 344-1022; www.r-ahhec.org
- Northern, (315) 267-3329; www.careersinhealth.org
- Hudson-Mohawk, (518) 480-2432; www.HMAHEC.org
- Central, (607) 756-1090; www.cnyahec.tweny.rr.com
- Bronx-Westchester, (718) 590-6429
- Brooklyn-Queens-Long Island, (718) 797-1558

NORTH CAROLINA AHEC PROGRAM

Phone: (919)966-2461

Web site: www.ncahec.net

AHEC Centers:

- Area L, (252) 972-6958; ww.areasahhec.dst.nc.us
- Charlotte, (704) 697-6523; www.cltahhec.org
- Coastal, (910) 343-0161; www.coastalahhec.org
- Eastern, (252) 744-8214; eahec.ecu.edu
- Greensboro, (336) 832-8025; www.gahec.org
- Mountain, (828) 257-4400; www.mtn.ncahec.org
- Northwest, (336) 713-7000;
northwestahhec.wfubmc.edu
- Southern Regional, (910) 678-7230;
www.SouthernRegionalAHEC.org
- Wake, (919) 350-8228; www.wakeahhec.org

OHIO STATEWIDE AHEC PROGRAM

Phone: (419) 383-4272

Web site: www.ohioahhec.org

AHEC Centers:

- Bryan, (419) 227-4803
www.mco.edu/org/stateahhec/region1.html
- Lima, (419) 227-4803
www.mco.edu/org/stateahhec/region1.html
- Sandusky, (419) 626-7789
www.mco.edu/org/stateahhec/region1.html
- Canton, (330) 499-9600, ext. 662
www.mco.edu/org/stateahhec/region3.html
- Summit/Portage, (330) 972-6957
www.mco.edu/org/stateahhec/region3.html
- Eastern, (330) 742-2390
www.mco.edu/org/stateahhec/region3.html
- Consortium Health Education in Appalachia Ohio,
(614) 593-2292; www.mco.edu/org/stateahhec/region5b.html
- HEALTH-UC, (937)378-4171; www.healthuc.edu/

AHEC Program and Center Contact Information

OKLAHOMA AHEC PROGRAM

Phone: 918-582-1989

Web site: www.ahec.okstate.edu

AHEC Centers:

- **Northeast**, Tulsa Community College (918) 595-84042
- **Northwest**, Rural Health Projects, Inc., (580) 213-3172
- **Southeast**, Carl Albert State College, (918) 647-8611
www.seokahec.org/info.htm
- **Southwest**, (580) 581-2852
www.cameron.edu/admin/ed_outreach/heoc-swahec/
- **Osage Community Clinic**, (918)582-1989 or (918)607-4078
www.ahec.okstate.edu/admin/ed_outreahec/heoc-swahec/

OREGON STATEWIDE AHEC PROGRAM

Phone: (503) 494-6602

Web site: www.ohsu.edu/ahec/

AHEC Centers:

- **Northeast**, (541) 962-3800; www.eou.edu/neoahec/
- **Cascades East**, (541) 617-2685; www.cascadeseast.org/
- **Oregon Pacific**, (541) 737-8600; www.opahec.org/
- **Southwest Oregon**, (541) 672-1945;
www.healthtyoregon.com/
- **Columbia Willamette**, (503) 691-9088

PENNSYLVANIA STATEWIDE AHEC PROGRAM

Phone: (717) 531-4327

Web site: www.collmed.psu.edu/pa_ahec

AHEC Centers:

- **Northwest**, (814) 453-6551; www.nwpaahcec.org/
- **Southeast**, (610) 430-7500
- **Northcentral**, (750) 724-9145; www.ncpaahcec.org
- **Southwest**, (412) 247-0184;
www.southwestahec.org/
- **Southcentral**, (814) 344-2222
- **Northeast**, (570) 945-5623; www.nepaahec.org/
- **East Central**, (610) 379-2001

SOUTH CAROLINA STATEWIDE AHEC PROGRAM

Phone: (843) 792-4431

Web site: www.ahec.net (Presently under construction)

AHEC Centers:

- **Lowcountry**, (803) 943-5052; www.lcahec.com
- **Mid-Carolina**, (803) 286-4121;
www.midcarolinaahec.org
- **Pee Dee**, (843) 777-5353; www.peedeeahcec.net
- **Upstate**, (864) 349-1160; upstateahec.org

TENNESSEE STATEWIDE AHEC PROGRAM

Phone: (615) 327-6572

AHEC Centers:

- **West**, (901) 274-9009
- **Central**, (615) 443-5180

TEXAS (EAST) AHEC PROGRAM

Phone: (409) 772-7884

Web site: www.etxahec.org

AHEC Centers:

- **Brazos**, (254) 753-4392; www.bahec.org
- **Coastal**, (409) 933-0021; www.cahectx.org
- **DFW**, (972)719-4900; www.dfwhc.org/ahec
- **Greater Houston**, (713) 592-6411; www.ghahec.org
- **Lake Country**, (903) 877-5788; www.lcahec.net
- **Pecan Valley**, (361) 576-2337; www.pvahec.org
- **Piney Woods**, (936) 468-6901; www.pwahec.org
- **Prairie**, (940) 369-7808

TEXAS (SOUTH) AHEC PROGRAM

Phone: (210) 567-7813

Web site: www.uthscsa.edu/ahec

AHEC Centers:

- **South Central**, (210) 567-7818; www.alamoahcec.org/
- **Lower Rio Grande Valley Academic Health Center** (956) 365-6103
- **Mid Rio Grande Border Area**, (956) 712-0037
- **Winter Garden Border**, (830) 775-4500
- **South Coastal**, (361) 902-4487

TEXAS (WEST) AHEC PROGRAM

Phone: (806) 743-1338

Web site: www.ttuhsc.edu/ruralhealth

AHEC Center:

- **AHEC of the Plains**, (806) 291-0101; www.ahecplains.org

UTAH AHEC PROGRAM

Phone: (801) 585-1940

Web site (all centers are linked to this site):

www.ahec.utah.edu

AHEC Centers:

- **Southwest**, (435) 865-8453
- **Crossroads**, (801) 957-3939
- **Northern**, (801) 626-7468

VERMONT AHEC PROGRAM

Phone: (802) 656-2179

Web site: www.VTAHEC.org

AHEC Centers:

- **Northeastern**, (802) 748-2506; www.nevahec.org/
- **Champlain Valley**, (802) 527-1474; <http://cvahec.org>
- **Southern**, (802) 886-2115
www.southernvermontahec.org/

VIRGINIA STATEWIDE AHEC PROGRAM

Phone: (804) 828-7639

Web site: www.ahec.vcu.edu

AHEC Centers:

- **Blue Ridge**, (540) 568-3178; www.brahec.jmu.edu
- **Southside**, (434) 395-2861; www.lwc.edu (search: AHEC)
- **Southwest**, (276) 782-1236; www.swvahec.org/
- **Greater Richmond**, (804) 358-7280;
www.grahec.org
- **South Central**, 434-369-7703; www.scahec.org
- **Rappahannock**, 804-493-0818; www.rahec.net
- **Northern**, (703) 549-7060
- **Eastern**, 757-446-6167

AHEC Program and Center Contact Information

WEST VIRGINIA STATEWIDE AHEC PROGRAM

Phone: (304) 347-1243

WISCONSIN AHEC SYSTEM

Phone: (608) 263-1712

Web site: www.ahec.wisc.edu (all centers are linked to this site)

AHEC Centers:

- **Milwaukee**, (414) 226-2432
- **Northeastern**, (414) 765-7281
- **Northern**, (715) 675-7899
- **Southwest**, (608) 265-0637

WWAMI: WASHINGTON, WYOMING, ALASKA, MONTANA, IDAHO

Phone: (206) 543-6806

AHEC Centers:

- **Alaska Center for Rural Health**, (907) 786-6589
www.auroraweb.com/ahec/
- **Idaho Rural Health Education Center**, (208) 336-5533
www.mtnstatesgroup.org/rhec/main.html
- **Montana State University**, (406) 994-6001
<http://ahec.msu.montana.edu/mtahec/>
- **Eastern Washington, Washington State University**, (509) 358-7640;
www.spokane.wsu.edu
- **Western Washington**, (206) 441-7137
www.qwest.net/~wwahec/
- **Wyoming**, (307) 766-2496
<http://uwadminweb.uwyo.edu/WWami/ahec/ahec.htm>

HETC Program and Center Contact Information

There is a separate section in the AHEC authority for programs similar to the basic AHEC project, but that are focused on specialty target areas or populations. There are two types of HETCs: Border and Non-Border HETCs.

Border HETCs located in Arizona, California, New Mexico, Texas and Florida receive one-half of HETC funds for longterm projects within 300 miles of the U.S.-Mexico border.

ARIZONA HETC PROGRAM

Phone: (520) 318-715

Web site: www.azahec.org

HETC Centers:

- **Southeast**, (520) 287-4722
www.azahec.org/centers/seahec/
- **Western**, (928) 627-9222
www.azahec.org/centers/wahec/

FLORIDA BORDER HETC

Phone: (954) 262-1588

NEW MEXICO BORDER HETC

Phone: (505) 272-2095

CALIFORNIA BORDER HETC

Phone: 559-241-7650

cal-ahec.org

HETC Centers:

- **Los Angeles Basin**, (310) 534-6222
- **Multicultural**, (323) 563-5853
- **Orange County**, (949) 824-8932
- **San Diego Border**, (858) 822-0462
- **San Joaquin Valley**, (559) 446-2323
- **San Bernardino/Imperial**, (909) 696-5292

HEALTH EDUCATION TRAINING CENTERS ALLIANCE OF TEXAS (HETCAT)

Phone: (210) 567-7800

Editor's Note: Information on these pages was solicited from the individual HETC Programs. Some information was provided by the Federal AHEC/HETC Office in Rockville.

HETC Program and Center Contact Information

Non-Border HETC grants are made in areas of acute need in other locations, such as frontier areas, Appalachia, inner cities, etc.

DELTA UNIDAD HETC PROGRAM, ARKANSAS

Phone: (501) 686-5260
Web sites: Under construction

HETC Centers:

- **Southwest**, 870-779-6000
- **Delta**, (870) 338-9100

GEORGIA HETC PROGRAM

Phone: (404) 752-1624
Web site: www.msm.edu

HETC Centers:

Web sites: all can be accessed through www.mcg.edu/ahec

- **Southeastern Primary Care Consortium**, (404) 761-7900

www.mcg.edu/ahec/atspc.htm

- **Magnolia Coastlands**, (912) 681-0371
- **Southwest Georgia (CC)**
- **Blue Ridge**, (706) 802-5232

KANSAS HETC PROGRAM

Phone, (913) 588-1641
Web sites: Under construction

HETC Centers:

- **U. of Kansas Nurse-Midwifery Program**, (913) 588-1683
- **Birth and Women's Center**, (785) 232-6950
- **Birth and Women's Health Center**, (620) 567-2627
- **Healthy Options for Planeview**, (316) 651-5357
- **Northwest Kansas AHEC**, (785) 628-6128
- **Sterling Medical Center**, (620) 278-2123
- **University of Kansas Department of Dietetics and Nutrition**, (913) 588-5363
- **University of Kansas Department of Family Medicine**, (913) 588-1986

UNIVERSITY OF KENTUCKY - EASTERN KENTUCKY HETC

Phone: (859) 323-8018

UNIVERSITY OF LOUISVILLE - KENTUCKY HETC

Phone: (502) 852-7159
Web site: www.louisville.edu/medschool/ahec

HETC Centers:

- **Southern**, (859) 985-7302; www.mc.uky.edu/ahec/sou.htm
- **North Central**, (859) 655-8037; www.mc.uky.edu/ahec/ncahec.htm
- **Northeast**, (606) 784-2432; www.neahec.org
- **Southeast**, (606) 439-6791; www.mc.uky.edu/ahec/seahec

OREGON HETC PROGRAM

Phone: (503) 494-4248

WASHINGTON HETC PROGRAM

Phone: (206) 543-6806

WISCONSIN HETC PROGRAM

Phone: 608 263-1712

The National AHEC Program Office

AHEC Branch

Division of Interdisciplinary, Community Based Programs

Bureau of Health Professions, Health Resources and Services Administration

Parklawn Building, Room 9 - 105,

5600 Fishers Lane,

Rockville, MD 20857

Phone: (301) 443-6950

FAX: (301) 443-0153

• **Louis D. Coccodrilli, MPH**

E-mail: lcoccodrilli@hrsa.gov

• **Janet B. Clear, MPH, RN, C**

E-mail: jclear@hrsa.gov

• **Susan B. Goodman, RDH, DDS**

E-mail: sgoodman@hrsa.gov

• **David D. Hanny, PhD, MPH**

E-mail: dhanny@hrsa.gov

• **Louisiana S. Jones**

E-mail: ljones@hrsa.gov

• **Diba N. Rab, MPH**

E-mail: drab@hrsa.gov

• **Terri Spear, EdM**

E-mail: tspear@hrsa.gov

• **Barry S. Stern, MPH**

E-mail: bstern@hrsa.gov

• **Leo Wermers**

E-mail: lwermers@hrsa.gov

The National AHEC Bulletin

is a publication of

The National AHEC Organization (NAO)

EDITORIAL BOARD:

Steven R. Shelton, MBA, PA-C, Chair

Robert J. Alpino

Thomas J. Bacon, DrPH

Richard A. Garcia, MHA

Sally A. Henry, MA, RN, FHCE

Susan Moreland, CAE

EDITOR:

Barbara Clarihew

Requests for copies should be directed to the AHEC project office in your state or the NAO.

For further information, contact:

Barbara Clarihew, Editor

The National AHEC Bulletin

c/o Applied Behavioral Health Policy Division

School of Public Administration and Policy

The University of Arizona

741 North Fourth Avenue, Suite 107

Tucson, AZ 85705-8445

Phone: (520) 917-0841 Ext. 129

Fax: (520) 917-0845

E-mail: clarihew@u.arizona.edu

EX-OFFICIO MEMBERS:

Heather Anderson, MPH

Louis D. Coccodrilli, MPH

Kery Hummel

Laurie Wylie, MA, ARNP

Addressing the Needs of the Underserved: Refocusing on AHEC Roots

AHEC Bulletin

Autumn 2003

Solicitation of Articles

The 1970 Carnegie Commission report, *Higher Education and the Nation's Health: Policies for Medical and Dental Education*, recommended the establishment of AHECs to address the maldistribution of health professionals, especially the shortage of primary care physicians.

Acting on that report and others, Congress established the AHEC program in 1972 as part of a three-pronged strategy to address the needs of the medically underserved: 1) the creation of a series of 'safety net' clinics, the *Community Health Centers (CHCs)* and *Migrant Health Centers (MHCs)*; 2) the establishment of the *National Health Service Corps (NHSC)*; and 3) the development of the *Area Health Education Center (AHEC)* program. It was a comprehensive approach recognizing that in order for services to be provided to target populations, they would need facilities in which to operate (CHCs/MHCs) as well as a supply of clinicians (NHSC) who had been trained to meet the distinctive needs of these clients (AHECs). Later, the Health Education and Training Centers (HETC) program was formed to address severe, persistent unmet healthcare needs of special populations.

For the past 30 years, AHECs/HETCs have engaged in a wide-variety of activities directed at all points along the pathway of health professions education — beginning with the K-12 years, continuing through pre-professional and professional academic programs and on to continuing education and support services for practitioners. In addition to these 'core' functions, AHECs/HETCs have also expanded their missions to creatively focus on individual communities' needs. However, health workforce shortages are critically high again and AHECs/HETCs are rethinking goals and methods.

Moreover, current severe economic downturns are further impeding access to healthcare for many Americans. The Washington DC-based Center for Studying Health System Change's 2003 report, *Economic Downturn and State Budget Woes Overshadow Seattle Health Care Market*, details a state budget crisis that "threatens to unravel much of the progress made in expanding health insurance coverage... (B)udget deficits...cut safety net funding significantly in 2003." This scenario is certainly not unique to Seattle; most AHEC/HETC directors can detail similar situations in their states and many have mobilized for action.

The National AHEC Bulletin invites you to submit 500-1000 word articles on strategies that describe how your AHEC/HETC is 'refocusing on our roots' to address this deepening crisis:

- Approaches devoted to building on assets of new or continuing underserved populations
- Innovative partnerships or collaborations for service learning
- Maintaining quality with reduced resources
- Primary care training and retention models
- Creative professional training and information dissemination methods
- Relieving stress on existing services, (e.g., emergency rooms, clinics)
- Comprehensive initiatives involving C/MHCs and FQHCs and NHSC
- Integrating knowledge and skills of academic centers and communities
- Supporting the missions of safety net systems

Deadline for First Draft of Articles: June 16, 2003

Please submit drafts and photos to: Barbara Clarihew, Editor: clarihew@u.arizona.edu
For Editorial Guidelines: see NAO website www.nationalahec.org

Building
Community/Academic
Partnerships For Health



The AHEC 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 educational partnerships.

The HETC Mission

HETCs provide community health education and health professions training programs in areas of the U.S. with severely underserved populations such as communities with diverse cultures and languages. Border HETCs target health care workforce needs to address the population in close proximity to the U.S.-Mexico border and Florida using a bi-national approach to border health issues. Non-border HETCs are located in other seriously underserved areas of the country.

www.nationalahec.org

Contact NAO

NAO Headquarters address:
National AHEC Organization
500 Commonwealth Drive
Warrendale, PA 15086
Phone: (888) 412-7424
Fax: (724) 772-8349

Key Contacts

Judy Lyle
Client Executive
lylej@amerinetcentral.org

Annie Wiest
Administrative Assistant
weista@amerinetcentral.org