



November 2001

**First Annual  
REPORT TO THE SECRETARY  
DEPARTMENT OF HEALTH AND HUMAN SERVICES  
And To The  
CONGRESS**

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**REVIEW AND RECOMMENDATIONS  
Interdisciplinary, Community-Based Linkages  
Title VII, Part D  
Public Health Service Act**

**National Advisory Committee On  
Interdisciplinary, Community-Based Linkages**



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U.S. Department of Health and Human Services  
Health Resources and Services Administration

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The views expressed in this document are solely those of the Advisory Committee on Interdisciplinary, Community-Based Linkages and do not necessarily represent the views of the Health Resources and Services Administration or the U.S. Government.

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## **I. Executive Summary**

The integration of “interdisciplinary” and “community-based” concepts into the training of health professionals is an effective way to ensure that there will be a national workforce providing the best possible health care in underserved geographic regions or in service to vulnerable populations. By focusing precious national resources on interdisciplinary, community-based grant programs, the Secretary and Congress are also supporting cost-efficient measures that target the greatest needs for health professions education. The President’s intent in expanding services to the Nation’s neediest populations through growth in community and migrant health centers is an example of the continuing demand for educational strategies that prepare a workforce to serve in these practices.

In 1998, the Advisory Committee on Interdisciplinary, Community-Based Linkages was created to provide advice and recommendations to Congress and the Secretary on interdisciplinary health professions policy and program development, specifically activities under Section 756, Title VII, Part D of the Public Health Service Act. The Committee was chartered in March 1999, and its initial meeting was held in August 2000. Currently, there are 20 Secretary-appointed members who represent expertise on the various interdisciplinary, community-based grant programs and health professions education, in general. The Advisory Committee met on four additional occasions following its initial organizational meeting.

The Advisory Committee believes that the primary purpose behind the Federal programs created by Title VII, Part D of the Public Health Service Act is creation of academic-community partnerships that prepare a health workforce which is responsive to the needs of the Nation. It is felt that such programs must be sensitive to the evolving system of health care delivery, the changing scope of practice for various disciplines, the socioeconomic and cultural characteristics of an increasingly diverse national population, and the ever-expanding base of scientific knowledge associated with providing the highest quality of health care in the world. The Advisory Committee also understands that training health professionals in interdisciplinary setting leads to the most effective health care as recognized by numerous national reports, health systems, and accrediting agencies.

In its First Annual Report, the Advisory Committee shares its findings and recommendations following an extensive review of the current interdisciplinary, community-based grant programs. In brief, the Advisory Committee makes the following recommendations:

- The Advisory Committee suggests that Congress and the Secretary make every effort to maintain these clearly effective approaches to building the workforce that provides health care services to unserved, underserved and vulnerable populations. The grant programs focus on recruitment and retention of key health personnel, and this is critical to past and present

successes and should be promoted in any future legislative actions or administrative policies. Consequently, the Advisory Committee strongly recommends reauthorization of the Federal interdisciplinary, community-based grant programs.

- The Advisory Committee recommends increasing appropriations for the interdisciplinary, community-based grant programs as much as possible in order to continue and expand preparation of a workforce that can meet the health care needs of older Americans, minority and immigrant populations, and people who reside in this Nation's rural and inner city areas. Moreover, legislative language should encourage collaborations between institutions that train minority and immigrant populations and these grant programs. These programs must be recognized and supported as the federally designated "education pipeline" to meet the health workforce needs in the Nation, including a growing network of community and migrant health centers proposed by the President.
- Legislative language should encourage the design and implementation of funded activities that directly relate to the unique health needs of a region or local area. Grant-funded strategies should be designed within the context of community-based input from the populations who will be served by those who are trained in these programs. The Advisory Committee recommends establishing administrative policies that promote use of community advisory groups within the organization of the grant programs as well as training protocols that are uniquely defined for the local service area or population.
- The Secretary should use the administrative policy tools of "preferences and priorities" for making awards to grantees that propose truly interdisciplinary training strategies in their projects.
- Congress should establish a grant program known as "Interdisciplinary Education Demonstration Projects" to encourage cooperative, community-based ventures between two or more of the grant programs described currently in Title VII, Part D, Sections 751 – 755 of the Public Health Service Act. This new program should require that applicants focus on the Healthy People 2010 initiatives and the Secretary's health care initiatives. New appropriations would be necessary to implement this particular grant program so as not to jeopardize the national infrastructure (existing network) of currently funded interdisciplinary, community-based programs.
- The Advisory Committee concurs with many of the National Commission on Allied Health's (1995) observations and with its recommendation to establish an entity within Health Resources Services Administration (HRSA) that would give greater visibility and representation to "allied health," such as an Office or Division.

This new entity should help define allied health in such a manner that it can encompass current and emerging disciplines that serve in support of delivering critical health care in the Nation.

The Advisory Committee's future agenda should include work that recommends a Federal funding level that more adequately reflects the needs for training allied health professionals.

- Federal Agencies, including the National Institutes of Health, the Agency for Healthcare Research and Quality, the Centers for Disease Control and Prevention, the Food and Drug Administration, and others should establish formal, funding-based links with HRSA to enable interdisciplinary, community-based programs such as AHECs, HETCs, and GECs that carry out continuing professional education and other forms of postgraduate training to serve as vehicles for translating research into practice. Such new grant programs funded by the research agencies should focus on training remotely located primary health care providers and practitioners who serve disadvantaged populations, such as the poor, minorities, and the elderly. The Advisory Committee recommends that one percent (1%) of these research agencies' annual appropriations be designated for the interdisciplinary, community-based programs to disseminate critical research findings to community health care providers and providers-in-training.
- Federal agencies that seek to promote more “population inclusive” research should be instructed to formally establish funding relationships with grant programs such as AHECs, HETCs, and GECs. The interdisciplinary, community-based programs can assist Federal research agencies in their objectives to encourage greater participation by minorities and other populations that are often underrepresented in health-related research protocols. It is likely that such relationships and links between the Federal research agencies and these grant programs would reduce the more costly need for creating redundant organizational structures. Such collaborative arrangements should focus on more effective and efficient use of existing funds appropriated to these research agencies.
- The Federal criteria for sharing costs with local sources, such as State or local community government and private foundations, should be maintained for programs that have demonstrated successful outcomes. However, the HETC grant program, as one that typically has limited access to non-federal resources due to the nature of its target population and the economic conditions of the region, should not have a “self-sufficiency” requirement. A legislative *desire* rather than a *requirement* for self-sufficiency and cost sharing should be expressed for the HETC grant program.
- The Advisory Committee believes that the podiatric medicine grant program serves an important purpose in training podiatric physicians who meet a crucial health need in the community. However, the Advisory Committee recommends that the legislative authority for this grant program should be placed in Part D, Section 747 in association with the discipline-specific grants such as those that train family physicians, general internal physicians, or other primary health care providers.

The Advisory Committee believes that it is best positioned to continue review of these grant programs and policies regarding interdisciplinary, community-based health professions education. The inaugural

year for the Advisory Committee has focused on laying the foundations for understanding present policy and current grant programs. While it has reached some preliminary findings and recommendations, the Advisory Committee believes that the work to date has only set the stage for providing Congress and the Secretary with advice on future policies that will best serve the health of the Nation.

## **II. Introduction**

Despite having the most advanced health care system in the world, the United States still has difficulty meeting everyone's health care needs. We can have limitless research that develops silver-bullet drugs and devices allowing us to live longer and healthier than ever before – but it's of no use if we don't have a health care system staffed with appropriately trained health care professionals — especially those who will provide care for needy populations. The federally authorized interdisciplinary, community-based grant programs work to that end — finding and training the workforce that ensures helping underserved, unserved and vulnerable populations around the United States — from inner cities to outlying frontier areas.

Funding programs that provide training for health professions students, medical residents and local providers in community settings while also delivering services is commonplace in the Area Health Education Centers (AHECs) program. Overcoming cultural barriers and empowering local communities to access health care services is a significant component of the grants awarded through the Health Education Training Centers (HETCs). The Quentin N. Burdick Program for Rural Interdisciplinary Training funds projects that offer access to health profession training and, for many, a new quality of life and an opportunity to provide rural communities with the workforce for needed health care services. Thanks to the grants offered to Allied Health and other disciplines that are often underfunded, the resulting interdisciplinary, community-based health programs help expand the skill level and the numbers of these essential health professionals. Geriatric Education Centers (GECs) and other, related Federal programs prepare health care professionals to serve the unique needs of a growing population of elderly in this country.

In 1998, the Advisory Committee on Interdisciplinary, Community-Based Linkages was created to provide advice and recommendations to Congress and the Secretary about interdisciplinary, community-based health professions education policy and program development.

The Advisory Committee observes that the interdisciplinary, community-based grant programs share several common characteristics:

- The programs are all health workforce development programs responding to unmet needs located throughout the Nation.

- The programs concern themselves with supplying health personnel who will serve vulnerable and often underserved population groups – e.g. the elderly, rural residents, inner-city minorities, and populations with special needs who live in U.S./Mexican border areas.
- Interdisciplinary in nature, they are models of health care education at its best – interactive, teaching a variety of health professionals to work interdependently in consultation with each other to reach diagnostic decisions faster and develop potentially a larger array of treatment options for the people they serve. When health professionals work this closely together, they even have an opportunity to get ahead of the curve and develop preventive and wellness approaches that improve quality of life. Consequently, interdisciplinary health care becomes a more cost-effective way to deliver services to the nation.
- The programs collaborate closely with local communities and other grant programs to identify health workforce and service solutions for the needs of distinct local populations.
- The programs address workforce gaps in service that result from private health care market failures in difficult-to-serve communities.

Through these grant programs, which complement each other, the Federal Government has become a collaborative partner in developing national and community health care networks – networks that help to reach our national priorities for a well-trained and equitably distributed health workforce that serve local needs.

### **III. Advisory Committee**

In 1998, the Advisory Committee on Interdisciplinary, Community-Based Linkages was created to provide advice and recommendations to Congress and the Secretary on interdisciplinary health professions education policy and program development.

The Advisory Committee was initiated to provide advice specifically on programmatic matters concerning the agency, specifically the grant programs addressing geriatrics, Area Health Education Centers, Health Education Training Centers, Allied Health, Chiropractic Medicine, Podiatric Medicine and the Quentin N. Burdick Program for Rural Interdisciplinary Training. The Advisory Committee is the only entity in existence to perform this function for Congress and the Department of Health and Human Services.

As with any committee of this nature, this inaugural year has been spent learning about the programs' organization, their challenges and their successes while also laying the groundwork for pathways of further investigation. By carefully investigating the basic structure of the various grant programs and interviewing the myriad people who are touched by these programs, the Advisory Committee began to gain an understanding of the programs' effectiveness and their needs. This Inaugural Report is a summary of that work.

The meetings (including one introductory, organizational session) from this year set the underlying assumptions for understanding how well the current grant system is working and where potential challenges to success may exist and need improvement.

It was imperative in the first meetings to establish a committee structure and framework for evaluating the various grant programs. Additionally, the Advisory Committee reviewed the specific programs, examining their goals, their outcomes, their grantees' potential to maintain self-sufficiency, their projects and activities, Congress' expectations of this work and other more general information about the programs.

The remaining meetings were comprised of presentations, interviews and discussions with experts at the Federal level, from academia and from the health care field to ascertain:

- Working definitions of interdisciplinary health care and community-based links.
- How interdisciplinary, community-based approaches have been incorporated into current health care practices.
- How to successfully address the needs of unserved, underserved, and vulnerable populations while also linking such service with the necessary health professions education.

- How Congress and the Health Resources and Services Administration (HRSA) can better meet local and regional community needs for addressing health professional shortages.

## **Authority**

The authority is 42 USC 294F, Section 756 of the Public Health Service Act, as amended. The Advisory Committee is governed by provisions of Public Law 92-463, as amended (5 USC Appendix 2), which sets forth standards for forming and using advisory committees.

## **Function**

The Advisory Committee shall (1) provide advice and recommendations to the Secretary concerning policy and program development and other matters of significance concerning activities under Section 756, Title VII, Part D of the PHS Act; and (2) prepare and submit to the Secretary, the Committee on Health, Education, Labor and Pensions of the Senate, and the Committee on Commerce of the House of Representatives, a report describing the activities of the Committee, including findings and recommendations.

HRSA and its Division of Interdisciplinary, Community-Based Programs in the Bureau of Health Professions, is responsible for all aspects of committee management. The Advisory Committee addresses its charge by meeting several times annually to hear testimony from nationally recognized leaders in the disciplines listed above and by preparing annual reports accordingly.

The effective date of the charter for the Advisory Committee is March 24, 1999. It was renewed on March 22, 2001.

The Advisory Committee held its initial, organizational meeting on Aug. 14-15, 2000. Prior to releasing this Inaugural Report, it held four additional meetings: Oct. 10-11, 2000; Jan. 10-12, 2001; Apr. 8-10, 2001; and June 6-8, 2001. On September 9-11, 2001, the Advisory Committee met in Washington, DC, and approved its First Annual Report as well as defining its working agenda for the next year.

## **IV. Principal Concepts**

As a basis to understanding the findings and recommendations put forth in this report, one must also have a grasp of the key concepts and terms. The following is a brief description of two fundamental concepts, “interdisciplinary” and “community-based”, as well as the synergistic impact of the combination of these two strategies in health professions education.

### **Interdisciplinary**

In 1915, Richard Cabot of Massachusetts General Hospital introduced the concept of the interdisciplinary health care team when he wrote about the value of “...teamwork of the doctor, educator and social worker in the interest of clinical efficiency.”

After World War II, interdisciplinary health care continued to emerge in every decade and the concepts of interdisciplinary education and practice evolved as well, with the concept sometimes being referred to as interprofessional collaboration or teamwork. Several national organizations and commissions have shown their support for an interdisciplinary approach to health care:

- The Joint Commission on the Accreditation of Health Care Organizations (JCAHCO) now requires evidence of interdisciplinary collaboration in hospitals, nursing homes and clinics as part of its accreditation review process.
- The report from the President's Advisory Commission on Consumer Protection and Quality in Health Care Industry explicitly recommends that physician, nurse and other health care worker training “...should provide those individuals with greater experience in working in interdisciplinary teams.”
- The American Association of Colleges of Nursing has released an official position statement that supports interdisciplinary education and practice for nurses.
- The American Geriatrics Society has recommended including interdisciplinary training in medical residents’ curriculum.
- And, the National Committee for Quality Assurance Standards for Accrediting Health Plans, an HMO-related entity, as well as behavioral health managed care organizations require coordination of care between primary care physicians, behavioral health practitioners and other health care providers.

Most recently, *Academic Medicine* (2001) published an article reporting a synthesis of nine major reports on competencies for the emerging practice environment. All reports recommended training on interdisciplinary teamwork and collaboration.

It is important to contrast multidisciplinary and interdisciplinary health professions education. While both approaches have great value, the two strategies have different concerns for practice outcomes. Multidisciplinary simply refers to training more than one discipline within the context of a given project or educational topic, often with mutual understanding and appreciation of each other's disciplines. Interdisciplinary implies educational objectives and outcomes that relate to practice between or among professions or disciplines. Hirokawa (1999) examined the differences between multidisciplinary and interdisciplinary health care teams. He noted that multidisciplinary is essentially *additive* and not *integrative*, whereas the presence of *interaction* between disciplines is a key feature of interdisciplinarity.

A multidisciplinary group becomes interdisciplinary when its members transcend their separate disciplinary perspectives and attempt to weave together their unique tools, methods, procedures, examples, concepts, and theories to overcome common problems or concerns. Members of the interdisciplinary team perform their work in a collaborative fashion, with team members providing the group with the knowledge and skills of their disciplinary perspective while they incorporate that perspective with others. Ultimately, the team should create solutions to health care problems that transcend conventional, discipline-specific methods, procedures and techniques (Hirokawa, 1999). Teaching how to effectively communicate with professionals in other disciplines is a worthy objective in training providers who can be successful in delivering the highest quality health care to the Nation.

### **Community-Based**

The U.S. Department of Health and Human Services publication, *Healthy People 2010: Understanding and Improving Health*, makes numerous references to the importance of community to individuals' and population groups' health. The document states that "...it has become clear that individual health is closely linked to community health – the health of the community and environment in which individuals live, work and play. Likewise, community health is profoundly affected by the collective beliefs, attitudes, and behaviors of everyone who lives in the community." Training health professions students and medical residents *in the community*, rather than simply *about the community* is essential to meeting the goals expressed in Healthy People 2010.

Magzoub and Schmidt (2000) suggest that there are many excellent reasons for health professions education to be community-based:

- It helps solve the problem of inequity in service delivery by producing practitioners who are willing and able to work in underserved areas.
- It enhances the ordinary academic curriculum by providing opportunities for students to learn in situations similar to those in their later lives (and in the presence of community role models) and offers opportunities to expand on previously acquired knowledge.
- It often makes a health service available to the community as soon as students begin to learn in that community; in this way they are contributing to the delivery of care.

- It equips students with competencies that they would never learn otherwise (e.g., leadership skills, the ability to work in a team and the capability to interact with the community).
- It helps strengthen the school politically, financially and morally. Community-based education keeps the curriculum updated, since the priorities of health problems constantly change. Consequently, the overall curriculum becomes responsive to the community's changing needs.
- It renders exemplary opportunities for partnerships between the community, academia and government.

### **Interdisciplinary, Community-Based Education**

The merger of “interdisciplinary” and “community-based” concepts into the educational venue of health professionals is an effective way of ensuring that the Nation's health workforce can provide the best possible health care. Further, interdisciplinary, community-based educational experiences that take place in underserved urban and rural areas or in service to vulnerable populations lead to culturally competent health care professionals who are more likely to practice in these areas. The Advisory Committee believes that the guiding principle behind the Federal programs Congress authorized in Part D, Sections 751-755 of the Public Health Service Act is to create academic-community partnerships that prepare a health workforce that is responsive to the needs of the Nation. To be successful, the educational infrastructure that these programs establish must be sensitive to the evolving system of health care delivery, the changing scope of practice for various disciplines, the socioeconomic and cultural characteristics of an increasingly diverse national population, and the ever-expanding base of scientific knowledge associated with providing the highest quality of health care in the world. It is these parameters by which the Advisory Committee undertook its review of the current Federal grant programs and issues its First Annual Report.

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## **V. Interdisciplinary, Community-Based Grant Programs**

In this initial report, the Advisory Committee focused its review and recommendations to the grant programs authorized by Part D, Sections 751, 752, 753, 754 and 755 of the Public Health Service Act. They are the core federally supported programs that are interdisciplinary and multidisciplinary in their scope and provide the principle links between academic health institutions and communities.

The Advisory Committee finds that, despite limited sources, innovative projects that demonstrate important interdisciplinary community-based links are being funded through these grant programs. The programs serve as ideal laboratories for developing new models of community-based interdisciplinary education.

Increasingly, health care is most effective when it is delivered through teams of providers in hospitals, community health centers, long-term care facilities, senior health centers, mental health centers and from multiple disciplines practicing in outpatient, clinic settings. The programs authorized under Part D of the Public Health Service Act offer unique community-based interdisciplinary learning opportunities that are rarely available on the university campus. No other federally funded initiatives share these characteristics in meeting the national needs for an effective health care workforce.

### **Area Health Education Centers— Section 751**

*When 3<sup>rd</sup>-year medical students at the University of California-San Francisco want real-world training, they can turn to rural San Joaquin Valley Health Consortium Area Health Education Center (or Center). Each year, many of these students are paired with rural community health providers for outpatient training and mentoring while doing their required inpatient rotations — a program so established that after 2 years of funding, it's now a permanent part of the UCSF School of Medicine curricula. And this program now includes rural family practice residencies, physician assistant and nurse practitioner training programs.*

*One of the first AHEC grant recipients in the country, the Center has been attracting new health professionals to this underserved area since 1972 when the grants were first offered and working to address the health profession education needs of this ethnically diverse population of 2.2 million within a seven-county area, roughly the size of West Virginia.*

*The University of California has seized the opportunity to make this Center an important part of its strategy to increase the ratio of primary care-to-specialty training. Additionally, the Center has continued to seek out a variety of training modalities, making use of telemedicine and tele-education technologies such as interactive course presentations, online conferences and video streaming to make health professions education more accessible to all students.*

The saying about AHECs goes: “if you’ve seen one, you’ve seen one,” because their approaches to increasing the number and quality of health professionals in underserved areas is so varied and uniquely related to the needs of the individual community. However, the common link between all AHECs is the spirit in which they make their approach: together a variety of health professions will evolve, work together and with the community, and provide the best health professions education possible in underserved areas.

Since 1972, AHEC programs have trained more than 1.6 million students and residents in medicine, nursing, allied health, dentistry, pharmacy, public health and other disciplines in underserved and health professional shortage areas.

Currently, there are 170 local AHECs or Centers working in 40 states to encourage health professionals to practice primary care in concert with other health professionals in underserved areas and those areas with pockets of underserved populations. Through community needs assessment and community interaction, AHECs creatively develop programs that will meet a given community’s health care needs in the best possible way even with limited resources while also working to attract local residents into various health professions and supporting the ones who are already there.

The win-win situation of educating the next generation of primary care physicians and other health care professionals while improving the health care system in these communities is the hallmark of the AHEC grant program.

AHEC program goals specifically are to:

- Increase the number of primary care providers and other health personnel who provide care in underserved areas and areas with specific populations of people whose health care needs are not being met.
- Improve health care workforce diversity by targeting recruitment efforts towards minorities and other populations underrepresented in the health professions via health career awareness and educational activities with elementary and secondary students.
- Conduct health professions education and training activities in local communities for students and medical residents.

- Disseminate information and provide educational support to reduce professional isolation, increase retention, enhance the practice environment and improve health care through the timely dissemination of research findings.

AHECs grow at a rate of one to two new programs in States or regions within States each year, creating a critically important academic/community infrastructure for community-based training and health care delivery. However, funding has remained relatively static even though Congress has expressed its interest in having an AHEC in every State. Last year, some States without AHECs applied for funding and were denied due to lack of Federal resources to match existing local support.

### **Self-Sufficiency**

Although some waivers are available, grantees are generally required to match 50 percent or more of total operating costs from non-federal sources in addition to providing a detailed strategy for self-sufficiency when the grant ends.

### **Outcomes**

Clearly, the outreach is working, and here are some of the outcomes that confirm this observation:

- Each year, approximately 32,000 students (17,000 medical and 15,000 associated health professions students) train in approximately 5,600 community-based sites in rural and urban medically underserved areas.
- In FY 2000, more than 154,000 individuals participated in AHEC-sponsored continuing education with topics ranging from oral health, women's health, domestic violence, adolescent issues, geriatrics, diabetes, HIV, mental health and cultural competence.
- 26,156 high school students participated in a minimum of 20 hours of health career enrichment programming with approximately three-quarters of the students coming from African-American, Latino or "White Disadvantaged" backgrounds.
- More than 110 medical schools and 500 other health professions schools collaborate with AHECs, using their centers as their "backbone" for interdisciplinary and community-based training.

### **Funding**

In FY 2001, 44 AHEC Programs received \$31.6 million in funding.

### **Health Education Training Centers—Section 752**

*The Texas Health Education and Training Center (HETC) has developed a Spanish language training program for emergency medical technician students from El Paso, TX and Juarez, Chihuahua, Mexico. This binational effort has resulted in more than 200 students becoming certified in Advanced Life Support. It has also resulted in the development of coordinated service delivery standards between providers in these border states located in two countries.*

*This is but one example of over 475 community owned projects that the HETC has supported over the past ten years. Founded upon sound public health and primary health care principles, the HETC directs its programs toward improving the health of Hispanic, migrant, immigrant and other vulnerable populations. In another program, more than 250 Community Health Workers have been trained in Texas Medicaid and Children's Health Insurance Program services and over 10,000 community individuals have been recipients of their services.*

*The Texas HETC and other HETCs located in the Nation are strong proponents of community-directed programs developed on the basis of local assessment of health needs. Strong community infrastructures provided by HETC interventions are particularly important to improving health in the underserved communities served by HETCs.*

And that's what HETCs are supposed to do. HETCs, whether they are working at the U.S./Mexican border or elsewhere in the country, focus on persistent, severe unmet health needs and like AHECs, they work to develop health professions training that serves a dual purpose of providing needed health services back to the community as new health professionals are being trained.

HETC programs' specific goals are to:

- Improve the supply, distribution, quality, and efficiency of personnel providing health services in the United States along the border with Mexico and the State of Florida.
- Improve the supply, distribution, quality, and efficiency of health care personnel who provide services in other urban and rural areas (including frontier areas) of the United States, health services to any population group, including Hispanic individuals, that has demonstrated serious unmet health care needs.
- Encourage health promotion and disease prevention through public education in the areas described above.

Not surprisingly, the public health problems that HETCs address are huge, diverse and complex where efforts are often quickly overwhelmed by the needs. Increased migration and fertility rates can break down what health care infrastructure had been introduced in past years if not for the presence of Federal programs such as HETCs.

Again, the Federal investment has remained constant over time, so the number of HETCs throughout the Nation has decreased due to lack of sufficient funding even to cover all eligible and approved grants.

### **Self-Sufficiency**

In addition to developing creative programs that address a locale's unmet health needs, grantees must also match 25 percent or more of total operating costs from non-federal sources in addition to a timetable and strategy for more localized funding or self-sufficiency for when the grant ends.

### **Outcomes**

Without doubt, health care providers are learning to work together on an interdisciplinary basis and in outlying settings where innovative approaches to health promotion are a daily prescription to meeting community health care needs. In many ways, the HETC programs' successes hinge on good training and support that will keep these particular health professionals satisfied in their uniquely demanding positions. The most recent HETC statistics come from FY 2000:

- 8,308 health professions students have trained in these underserved areas where they will ultimately practice health care as a result of HETC programs.
- 19,593 students (Kindergarten through grade 12) from underrepresented and minority populations participated in HETC education programs that opened their eyes to health careers they could pursue and make a difference in their local communities.
- 113,653 community members and health care providers have participated in HETC-funded public health activities.
- 70,845 people received health promotion-related services provided by 192 community health workers trained in HETC programs.
- 2,210 technical consultations were given by the HETCs on health care organization, financing, and delivery to underserved communities.

### **Funding**

In FY 2001, nine HETC programs received a total of \$4.3 million in funding with more than 50% of the funds (\$2.46 million) awarded to support border area HETCs in Arizona, California, New Mexico, Texas and Florida.

## **Geriatric-Related Education and Training—Section 753**

*Established in 1986, the Wisconsin Geriatric Education Center (WGEC) is finding new high tech ways to address the needs of the aging.*

*Staff at the WGEC recognized that while their clientele may not use computers much, their health care providers do. They have since created three interactive CD-ROMS that demonstrate, through case studies, interdisciplinary approaches to oral health care of geriatric patients. They've presented interactive videoconferences on pharmacology, incontinence, osteoporosis, immobility, behavior disorders, dementia and physiology. Health professionals can take a 40-hour online intensive training program in geriatrics. And the WGEC held the first ever Virtual Conference, a two-week online educational program focusing on Best Practices in Aging.*

Without doubt, the segment of the U.S. population growing at the fastest rate is the elderly, and three kinds of grant programs, including one directed at Geriatric Education Centers like this one in Wisconsin, are working to address how this country can prepare for future health care provider needs.

In 2000, approximately 35 million elderly (age 65 and older) lived and relied on health care services here in the United States. In fact, older people make up almost 13 percent of the total population. This older population is expected to double to 70 million by 2030. And statisticians predict that there will be approximately 19 million persons who are age 85 and older by 2050.

Increased longevity and improved health has been a major accomplishment of the 20<sup>th</sup> century. Not only are Americans living longer, older people are also healthier and experience fewer limitations in activities. However, this situation has serious implications for the U.S. health care system and the quality of life for older people in years to come, including effective and compassionate end-of-life care.

Increased longevity brings the need for more trained health care professionals who know about the aging process, the presentation of diseases and disabilities in old age, and age-appropriate treatments and support services. Trained professionals are needed in all health professions to deliver the wide range of services older people need, including preventive health education, rehabilitation, acute care, long-term care, and end-of-life care. The Federal geriatric health professions education grant programs provide funds to increase the supply of geriatric practitioners and provide quality continuing education for those health providers already in practice.

### **Geriatric Education Centers (GECs)**

The GEC program is the only federally funded program dedicated solely to geriatrics education for all health professionals. Since 1985, GECs have worked to improve health professionals' training in geriatrics by providing geriatric residencies, traineeships and fellowships; developing and disseminating

curricula to health professionals on treating health problems of the elderly; developing and implementing faculty development and continuing education programs; and providing clinical geriatrics training in nursing homes, chronic and acute care hospitals, ambulatory care centers and senior centers.

By its very nature, geriatric health care requires a team approach. The elderly tend to have multiple health problems and psychosocial needs, and ideal health care for these individuals requires an interdisciplinary team approach. From the multiple drugs prescribed and their opportunity for interactions and adverse reactions to diagnosing, managing, and treating Alzheimer's disease, it is imperative that health care providers work together in interdisciplinary teams. The GEC grants provide funding to strengthen interdisciplinary training in diagnosing, treating and preventing disease and other health concerns in the elderly. In turn, the funded programs provide services to and foster collaborative relationships among members of the health professions educational community.

The Wisconsin Geriatric Education Center (WGEC) mentioned earlier in this section is a formal consortium of academic and health care organizations, dedicated to creating educational resources and training opportunities in geriatrics for health professionals, faculty, practitioners, and students in Wisconsin. The WGEC mission is to enhance, through education and training, the quality and availability of health care for Wisconsin's aging population. Over 50,000 persons have participated in WGEC-sponsored programs during the center's 15 years of programming, including professionals from more than 35 different disciplines and practicing throughout Wisconsin's rural and urban communities.

### **Geriatric Training for Physicians, Dentists and Behavioral/Mental Health Professionals.**

The training projects in geriatric medicine, dentistry, and behavioral/mental health are awarded to public and private schools of allopathic and osteopathic medicine, teaching hospitals, and graduate medical education programs, with a goal of training more trainers.

The grants support fellowships and other training efforts that assist health professionals who plan to teach geriatrics. Participants are required to learn about older patients from good health to severe illness and death, considering the additional challenges that arise from a range of socioeconomic and racial/ethnic backgrounds. The training programs must offer training in ambulatory care settings, inpatient services and extended care facilities. Clinical experience is required in primary care, consultation, and providing care to the same panel of elderly patients for at least nine months in each year of training. Training programs include clinical geriatrics, teaching skills, administrative skills, and a core curriculum for all fellows, and a specialized curriculum for each discipline.

*For example, Boston University and the Boston Medical Center work together to train academic geriatricians, dentists, and psychiatrists to meet the primary care needs of the elderly and to provide training for future general practice physicians and dentists who care for this population. A special strength of this program is that it provides care across a continuum of sites to an ethnically, culturally, and linguistically diverse group of elderly people, many of whom are poor. Since 1991, they have successfully trained 23 geriatric*

*physicians and dentists under a faculty training grant from the Bureau of Health Professions; 57 percent are practicing in underserved areas.*

### **Geriatric Academic Career Awards (GACA)**

The GACA program aims to increase junior faculty in academic geriatrics at schools of medicine and to promote their careers as practicing geriatricians. The program offers financial incentives of \$50,000 per year of service to encourage already qualified geriatricians to pursue an academic career in teaching geriatrics. These individuals must provide training in clinical geriatrics to interdisciplinary teams of health professionals, and that training must be 75 percent of the grantees' activities under the award. Other requirements ensure their qualifications and commitment to geriatric medicine. Award recipients are expected to become leaders in the field of geriatrics within 5 years.

Awardees' accomplishments are impressive and diverse. Many are providing training in community-based settings. All are providing interdisciplinary training. Award recipients' activities include traditional academic activities such as curriculum development and participation in numerous administrative duties at their medical schools; providing care and teaching in a wide range of clinical settings; conducting clinical research; participating in educational programs to build their own skills; and providing continuing education to already practicing health professionals and working with other sponsored health education programs.

The 1996 HRSA report, *A National Agenda for Geriatric Education White Paper*, said that the need for adequately trained health care providers is "urgent." The United States currently has 9,500 certified geriatricians, 3,352 gerontological nurse practitioners, and 845 geriatric clinical nurse specialists. It is estimated that 36,000 geriatricians will be needed by 2030.

### **Self-Sufficiency**

GEC grants and grants for the Geriatric Training for Physicians, Dentists, and Behavioral and Mental Health Professionals require self-sufficiency. Applicants to these programs must provide a plan to achieve self-sufficiency in their application. However, few of these grantees have achieved self-sufficiency. Upon completion of the GACA, awardees will be self-sufficient in that they will be qualified to assume leadership positions in teaching at academic institutions.

### **Outcomes**

- 375,000 health professionals in geriatrics in 27 health fields have received training in geriatrics.
- 7,800 academic and clinical faculty have been trained in 170 health-related schools and more than 550 affiliated clinical sites.

- 90 percent of GECs are consortia of three or more colleges, hospitals, community agencies and AHECs that reach many health providers.
- More than 50 community/academic partnerships that address local needs have been created.
- 1,000 curricula have been made available on dementia, adverse drug reactions, Alzheimer's disease, interdisciplinary team care, elder abuse, ethics, rural access, teleconferencing, incontinence and depression.

## **Funding**

In FY 2001, 36 GECs received \$7.5 million in funding, with an average first-year award of \$100,000 for a single institution and \$150,000 for a consortium of three or more institutions. In FY 2001, a total of \$2.9 million was awarded to seven new geriatric faculty-training programs. In FY 2001, 15 individuals received funding through GACA.

## **Quentin N. Burdick Program for Rural Interdisciplinary Training—Section 754**

*A young mother in remote, rural Nebraska was at her wit's end. The tantrums of her 7-year old foster child were taking their toll, and she was afraid that she'd have to give him up. "He would rage big time just over the littlest things," she said. "The screaming, kicking, hollering could last from 15 minutes to an hour, two to three times a day." The mother knew that the boy had behavioral problems when she got him, but the severity threw her. Many parents and others who live in rural Nebraska suffer from lack of access to behavioral health services. Over 75 percent of the State's mental health practitioners live in the two largest communities, Omaha and Lincoln; 87 of the 93 counties have a shortage of mental health services according to public health records.*

*In 1999, a Quentin N. Burdick Program for Rural Interdisciplinary Training grant helped establish an educational strategy to train pediatric behavioral health specialists as well as family physicians and pediatricians to work in Nebraska's rural communities. A post-doctoral student enrolled in the Program counseled this young Nebraska mother. She saw dramatic results within a month of starting therapy. "Our child is a completely different kid..." , the mother reported.*

*In many Nebraska rural communities, students study and provide services together through interdisciplinary learning settings involving local health care providers. The future of Nebraskans looks brighter through the improvements in health being brought about by this Federal program.*

*"I just thank God that they (the students) come here and work with these children...they do a wonderful job" said the mother.*

Rural interdisciplinary training grants, such as this one, support innovative training that prepares health care providers for practice in rural communities, which comprise more than half of U.S. health professional shortage areas. This rural grant program is broad and flexible in its application since basically any two or more health care disciplines can apply based on the State rural health workforce needs. Not more than 10 percent of the individuals receiving training with these grants can be trained as doctors of allopathic or osteopathic medicine. Grant funds are available for student stipends and interdisciplinary training projects. Since 1990, health professions schools, academic health centers, State and local governments, and other nonprofit organizations have used rural interdisciplinary training grants to:

- Use new, innovative methods to train health practitioners to provide services in rural areas.
- Demonstrate and evaluate methods and models to improve access to cost-effective, comprehensive health care.
- Provide health care services to people in rural communities.
- Expand research into rural health care issues.
- Recruit and retain health care providers in rural areas.

Rural clinic settings offer unique training to future health professionals in that many rural patients have complex, multifaceted health needs complicated by their isolated communities. Additionally, jobs in rural areas pay very little; infrastructure can be limited, and the programs find it difficult to garner the attention and funding from even State sources – making it difficult to attract new health professionals into the field and to sustain a remotely located program.

### **Self-Sufficiency**

The Quentin N. Burdick Program for Rural Interdisciplinary Training requires self-sufficiency, and recipients must report on progress towards this goal in their annual reports. To date, no longitudinal study has been completed on the number of rural interdisciplinary projects continuing to train students without Federal funding or private funding.

### **Outcomes**

- Over the past 10 years, nearly 13,000 health care providers, teachers and students in 28 States have been trained through this rural training program.
- A recent national survey showed that 54 percent of the graduates from this interdisciplinary training program were employed in rural or frontier areas 3 years after their training.

### **Funding**

Since the program's inception, \$44 million was spent to fund 76 rural interdisciplinary training projects. In FY 2001, \$5.6 million was awarded to 27 projects.

## **Allied Health and Other Disciplines/General—Section 755**

### **Allied Health Special Projects**

*NOVA Southeastern University, Fort Lauderdale, is currently offering a federally funded interdisciplinary, community-based training program. Students from occupational therapy, speech-language pathology, audiology, and optometry are working collaboratively in homeless shelters to increase access to services as well as to enhance interaction and their knowledge of skills across disciplines.*

*In Boston this year, the school system is tackling two challenges with one solution. A vocational school teacher recognized both untapped health career opportunities for her students and inner-city Boston's need for new types of health professionals. Consequently, Boston Public Schools and the Madison Park Technical Vocational High School in Roxbury will train 330 young adults from inner city Boston to become home health aids, nurse assistants, medical technology assistants, recreational therapists and EMTs – over the next 3 years. To encourage them to work in medically underserved areas in and around Boston, their training will take place in inner-city settings.*

Allied Health Special Project grants are authorized under Section 755 in Title VII of the Public Health Service Act under the Health Professions Education Extension Amendment (1992). These grants emphasize community-based training experiences designed to improve access to health care services, with substantial clinical training in medically underserved communities. By nature, they are interdisciplinary. Since Allied Health professions are comprised of an extremely broad and diverse workforce, it is important to understand that each profession is unique in its historical development, training and accreditation process, and philosophy. Examples of Allied Health professions with substantial clinical training and a long professional heritage are physical therapy, occupational therapy, speech and language pathology, medical technologists, and many others. Emerging Allied Health fields that encompass paraprofessionals such as home health aides and nursing assistants are essential to health care delivery, although they have less clinical rigor in their training.

Since 1990, 139 Allied Health Special Project grants have enabled schools to fund projects like the ones in Florida and Boston. The goals are to increase enrollment in those allied health fields experiencing shortages and in disciplines whose services are in high demand by vulnerable populations, such as the elderly and children who reside in rural or inner-city areas. They aim to provide rapid transition training to students with baccalaureate health science degrees and award programs that establish community-based training programs that link academic health centers with rural clinical settings.

Allied health professions encompass more than 200 occupations and approximately 2.8 million allied health professionals. However, in many key careers, there are significant shortages. The national vacancy rate for medical technologists is 11.1 percent and 21.1 percent in rural areas.

Consequently, the allied grants program seeks programs that provide for advanced training for practicing allied health professionals; establishes or expands clinical training in medically underserved and rural communities; develops curricula that emphasize disease prevention, health promotion, geriatrics, ethics, and long-term, home health and hospice care; promotes interdisciplinary training in geriatric assessment and rehabilitation; establishes or expands demonstration centers that focus on innovative links between allied health clinical practice, education and research; and establishes or expands graduate programs in behavioral and mental health professions.

Bottom line: grants are awarded to projects that will establish or expand allied health professional programs especially to meet the needs of the underserved, elderly and rural populations.

### **Chiropractic Demonstration Project Grants**

Chiropractic Demonstration Project Grants support collaborative research between chiropractors and physicians to develop effective treatments for spinal and/or lower back conditions. Colleges and universities of chiropractic, health professions schools, academic health centers, State and local governments, private nonprofit schools, and other appropriate public or private nonprofit entities are eligible for Chiropractic Demonstration Project grants. Additionally, Chiropractic Demonstration Projects must include a strong research protocol that will significantly expand documented research and that is suitable for publication in refereed research-oriented and other health professions journals. Grantees are to include racial and ethnic minorities and women in study populations whenever feasible.

These grants are historical in that they represent the first Federal funding of chiropractic research. They provide for interdisciplinary collaboration with respect to research. The program also has resulted in infrastructure development, including institutional policies that benefit chiropractic research.

### **Podiatric Medicine Program Grants**

*South Texas is a sparsely populated region with few health care resources making access to appropriate health care services extremely difficult. Many people (approximately 250,000 in Bexar County alone) suffer from diabetes and the chronic and acute foot conditions that can arise without proper health education and care.*

*The Primary Podiatric Medicine Residency Program at the University of Texas Health Science Center in San Antonio has made it possible for residents to learn about these patients' health needs while providing some of these people with diabetes with good care. The program's Amputee Support Group is internationally renowned as an exemplary*

*approach to assisting people who face emotional and physical hurdles as a result of diabetes-related amputations. "House calls" to colonias, ramshackle neighborhoods that lack potable water or other basic services also open the eyes of residents who are learning more than medicine during these residencies.*

*Additionally, the residents have compiled a wound risk and classification system database that has helped to improve treatment outcomes for patients with diabetes as well as help themselves develop an understanding of research.*

This program, like many others that receive grants, is aimed at educating podiatric residents in an interdisciplinary setting that makes use of podiatric medicine's specialization while merging it into a holistic health care approach.

The emphasis of the podiatric medicine program is prevention and primary care training and to support programs that are effective in recruiting disadvantaged, underrepresented minorities and sending graduates into primary care practices in underserved communities. Funds support training programs that encourage primary care, especially for underserved, minority and elderly populations and for people with AIDS.

Because a significant portion of podiatric physician's work focuses on diabetes-related foot care, they often work interactively with other health professionals.

### **Self-Sufficiency**

Because of the nature of these program grants, self-sufficiency is not a grant requirement.

### **Outcomes**

- Currently, there are 48 grants training large numbers of students and serving people throughout the Nation; since 1990, 141 Allied Health projects have been funded under this Federal program.
- At present, there are six Chiropractic research grants and three grants for training students in Podiatric Medicine.

### **Funding**

- Twenty new allied health projects were awarded a total of \$3.9 million in FY 2001, and 27 projects received continuation funds totaling \$6.3 million.
- In FY 2001, three chiropractic demonstration projects received a total of \$1,083,961.
- Three podiatric medicine awards were made in FY 2001 totaling \$594,565.

## **VI. Findings and Recommendations**

In its inaugural year, the Advisory Committee has sought to better understand the scope of the grant programs as well as their operational characteristics and outcomes. While most Advisory Committee members have a direct association with one or more of the programs, no individual member has a working knowledge of all grant programs. It was also the Advisory Committee's goal to begin to relate its understandings of these workforce-oriented programs to the changing environment of the American health care system and the needs of special populations in the Nation.

Consequently, the Advisory Committee refers to its initial year as the "foundation" period. Its actions included:

- Organizing itself in such a manner (panels) so members who have expertise as well as those who are less familiar with a particular program or set of programs could study the targeted Federal grant programs,
- Identifying and enabling the cooperation of Federal agency staff whom serve as resources to panels by assisting with information gathering and data collection,

- Developing a better understanding of the concepts of “interdisciplinary” and “community-based” through topical research performed by members and by hearing presentations from recognized experts in the field, and
- Soliciting testimony and comments from representatives of grant-related constituency groups, community health care providers, academic health centers, and various nationally recognized health systems.

The Advisory Committee feels that its actions have built a solid framework or “foundation” to better understand the grant programs that the legislation created by Congress. It has made a good start in analyzing whether this legislation and the grant programs have met the original intent of Congress and can continue to meet contemporary national needs. The Advisory Committee feels that its work to date has led to initial findings that are important guides for recommendations that relate to present policy matters as well as directing the Advisory Committee’s future actions. These findings and recommendations are described in the following statements:

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## FINDING A

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The Advisory Committee finds that the grant programs show clear and overwhelming evidence of successful outcomes related to health workforce development and service delivery. These programs address a persistent health care need throughout the Nation, focusing on unserved, underserved and vulnerable populations. The programs share common characteristics that set them apart from other health workforce grants, including:

- How they respond to unmet health needs in partnership with communities located in rural, urban, and suburban areas.
- How they promote “best practices” and “models” of interdisciplinary health care.
- How they address gaps in service that result from private health care failures in communities that are difficult to serve, educating the workforce for the Nation’s system of community and migrant health centers as well as rural health centers and community hospitals.

These and other characteristics of the programs permit them to be flexible and immediately responsive to emerging health workforce needs on both a national and local level. They are the only training programs that have a mandate and such extensive experience for focusing intensively on community-based strategies.

The Advisory Committee also finds that these grant programs represent a resource of interdisciplinary networks and integrative projects that collectively address national community-oriented health workforce issues. The programs that establish cooperative ventures with communities for multiple disciplines are known as “center” projects. The “center” grants programs include Federal programs

such as Area Health Education Centers (AHECs), Health Education Training Centers (HETCs), Geriatric Education Centers (GECs), and the Burdick Interdisciplinary Rural Health Training Grants. These projects represent interdisciplinary networks that conduct both multidisciplinary and interdisciplinary training taking place in partnership with local communities or needy populations. These programs have a strong emphasis on outcomes that serve the targeted population. The Allied Health program is comprised of “integrative projects” that train disciplines which are in high demand throughout the Nation and link them with other disciplines in the varied systems of health care found in the community. The podiatric medicine and chiropractic grant programs address education and research interests for their disciplines, and foster collaborative relationships with other providers in the broader network of health care.

**Recommendation #1:** The Advisory Committee suggests that Congress and the Secretary make every effort to maintain these clearly effective approaches to building the workforce that provides health care services to unserved, underserved and vulnerable populations. The grant programs focus on recruitment and retention of key health personnel, and this is critical to past and present successes and should be promoted in any future legislative actions or administrative policies. Consequently, the Advisory Committee strongly recommends reauthorization of the Federal interdisciplinary, community-based grant programs.

**Recommendation #2:** The Advisory Committee recommends increasing appropriations for the interdisciplinary, community-based grant programs as much as possible in order to continue and expand preparation of a workforce that can meet the health care needs of older Americans, minority and immigrant populations, and people who reside in this Nation’s rural and inner city areas. Moreover, legislative language should encourage collaborations between institutions that train minority and immigrant populations and these grant programs. These programs must be recognized and supported as the federally designated “education pipeline” to meet the health workforce needs in the Nation, including a growing network of community and migrant health centers proposed by the President.

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## **FINDING B**

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The most effective grant programs occur generally when legislative language and administrative policies offer the greatest possible flexibility for the programs to respond to community needs and be “community-based” in whole. Health professions education can then respond to regional, community and/or population-based needs. Decision-making occurs locally, through community-academic partnerships, and that results in educational strategies and program organization that uniquely address regional needs. Clearly, such legislative and policy “flexibility” helps lead to successful outcomes.

**Recommendation #3:** Legislative language should encourage the design and implementation of funded activities that directly relate to the unique health needs of a region or local area. Grant-funded strategies should be defined within the context of community-based input from the populations who will ultimately be directly served by those who are trained in these programs. The Advisory Committee recommends establishing administrative policies that promote use of community advisory groups within the

organization of the grant projects as well as training protocols that are uniquely defined for the local area or population.

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## FINDING C

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Interdisciplinary health care is an important way to meet the Nation's health care needs more effectively and efficiently. The Joint Commission on Accreditation of Health Care Organizations (JCAHCO) requires evidence of interdisciplinary collaboration in health care facilities, the President's Advisory Commission on Consumer Protection explicitly recommends training that promotes interdisciplinary teams, and the National Committee for Quality Assurance Standards, as well as other organizations, advocate for interdisciplinary training and clinical practice. Experts who presented to the Advisory Committee stressed that the interdisciplinary approach to health care leads to more comprehensive patient treatment and the betterment of the community's health care system as a whole.

Further, the Advisory Committee observed that there are important outcomes when these grant programs collaborate with each other. When two or more programs work cooperatively, it appears that there is a synergistic effect, meaning that outcomes exceed what the individual programs might otherwise have accomplished individually.

**Recommendation #4:** The Secretary should use the administrative policy tools of "preferences and priorities" for making awards to grantees that propose truly interdisciplinary training strategies in their projects.

**Recommendation #5:** Congress should also establish a grant program known as "Interdisciplinary Education Demonstration Projects" to encourage cooperative, community-based ventures between two or more of any of the grant programs described currently in Title VII, Part D, Sections 751 - 755 of the Public Health Service Act. This new program should require that applicants focus on the Healthy People 2010 initiatives and the Secretary's health care initiatives. New appropriations would be necessary to implement this particular grant program so as to not jeopardize the national infrastructure (existing network) of currently funded interdisciplinary, community-based programs.

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## FINDING D

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The Advisory Committee finds that two issues need to be addressed to strengthen the Allied Health grant program as it meets future health care needs in the Nation:

- The concept of what is identified as "allied health" remains vague and is often defined by naming certain disciplines either through congressional action or by administrative policy. This approach risks failing to meet the unique health workforce needs of a region or, perhaps, the entire country.

- The visibility and representation of “allied health” within the agency does not correlate with the number of health professions encompassed within that broadly understood discipline and the fact that it is the fastest growing group of health professionals. Allied health professionals have and will continue to play significant, pivotal roles in interdisciplinary community-based care.

**Recommendation #6:** The Advisory Committee concurs with many of the National Commission on Allied Health’s (1995) observations and with its recommendation to establish an entity within HRSA that would give greater visibility and representation to “allied health,” such as an Office or Division. This new entity should help define allied health in such a manner that it can encompass current and emerging disciplines that serve in support of delivering critical health care in the Nation. The Advisory Committee’s future agenda should include work that recommends a Federal funding level that more adequately reflects the needs for training allied health professionals.

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## FINDING E

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Some grant programs are well positioned to serve a national interest by disseminating practice guidelines and research outcomes that would likely improve the quality of evidence-based health care in American communities, especially in those regional areas and with populations that often have the poorest access to health services.

**Recommendation #7:** Federal agencies, including the National Institutes of Health, the Agency for Healthcare Research and Quality, the Centers for Disease Control and Prevention, the Food and Drug Administration, and others should establish formal, funding-based links with HRSA to enable interdisciplinary, community-based programs such as AHECs, HETCs, and GECs that carry out continuing professional education and other forms of postgraduate training to serve as vehicles for translating research into practice. Such new grant programs funded by the research agencies should focus on training remotely located primary health care providers and practitioners who serve disadvantaged populations, such as the poor, minorities and the elderly.

The Advisory Committee recommends that one percent (1%) of these research agencies’ annual appropriations be designated for the interdisciplinary, community-based grant programs to disseminate critical research findings to community health care providers and providers-in-training.

**Recommendation #8:** Federal agencies that seek to promote more “population inclusive” research should be instructed to formally establish funding relationships with grant programs such as AHECs, HETCs and GECs. The interdisciplinary, community-based programs can assist Federal research agencies in their objectives to encourage greater participation by minorities and other populations that are often underrepresented in health-related research protocols. It is likely that such relationships and links between the Federal research agencies and these grant programs would reduce the more costly need for creating redundant organizational structures. Such collaborative arrangements should focus on more effective and efficient use of the existing funds appropriated to these research agencies.

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## FINDING F

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Federal criteria for cost-sharing with grantee institutions, the community, and other private and public funders seem to be an important aspect in ensuring successful outcomes and reducing the overall demand for Federal funds to carry out these important projects. However, the requirement for “self-sufficiency” (meaning complete independence from Federal support) may hinder the original goals for the Federal interests in supporting the program and may disconnect the Federal interest from a valuable local resource. For example, the HETC focuses its public health efforts on working within extremely underserved communities. It has an initial funding requirement for a 25% match rate toward the goal of eventual self-sufficiency. The Federal formula requiring cost sharing and self-sufficiency for an HETC may be impossible to achieve from such economically deprived communities.

**Recommendation #9:** The Federal criteria for sharing costs with local sources, such as State or local community government and private foundations, should be maintained for programs that have demonstrated successful outcomes. However, the HETC grant program as one that typically has limited access to non-federal resources due to the nature of its target population and the economic conditions of the region should not have a “self-sufficiency” requirement. A legislative *desire* rather than a *requirement* for self-sufficiency and cost sharing should be expressed for the HETC grant program.

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## FINDING G

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The legislative language that describes the grant program for training podiatric medical residents is found in Part D, Section 755 under the Allied Health projects. However, HRSA’s administration of the grant program is under the auspices of the Bureau of Health Professions’ Division of Medicine and Dentistry.

**Recommendation #10:** The Advisory Committee feels that the podiatric medicine grant program serves an important purpose in training podiatric physicians who meet a crucial health need in the community. However, the Advisory Committee recommends that the legislative authority for this grant program should be placed in Part D, Section 747 in association with the discipline-specific grants such as those that train family physicians, general internal physicians, or other primary health care providers.

## **VII. Future Activities**

In its inaugural year, the Advisory Committee focused on laying the foundation for understanding the interdisciplinary, community-based grant programs as well as identifying many of the policy matters associated with these Federal initiatives. This review has led to several important findings and recommendations as described in the preceding section of this report, but has also shown that there are needs for additional future work. The Advisory Committee feels that it is well positioned to carry out these future activities on behalf of Congress and the Secretary. The expertise gained during the Advisory Committee's first year permits it to provide Congress and the Secretary with advice and consultation effectively and in a cost-efficient manner. Some of the priorities for future activities are described as follows:

- The Advisory Committee should work with HRSA to review the current methods to evaluate outcomes for the interdisciplinary, community-based programs. The objective for such review would be to recommend procedures that can help Congress, the Secretary, and HRSA better understand the relationship between the workforce outcomes and changes in health status within the targeted communities and populations. Such an objective for evaluation, albeit a complex and challenging proposition, offers important information in assessing the role and value of these programs in meeting their unique objectives for health care in the Nation.
- The Advisory Committee has identified the matter of “self-sufficiency” as an important topic for its future activities. In its initial year, the Advisory Committee has observed that there is wide variation about how this concept is applied to the Federal grant programs. The Advisory Committee should perform a comprehensive review of this topic, and recommend policies that can maximize programmatic impact within realistic financial commitments to be shared by various public and private parties.
- In the course of its work in the first year, the Advisory Committee has noted that the legislative requirements for the grant programs supporting chiropractic research and podiatric medicine do not address interdisciplinary, community-based health professions education. The Advisory Committee should recommend additional ways that these grant programs as well as others in this group can meet discipline-specific and population-based objectives while also training health professionals in interprofessional relations within the context of serving the Nation's neediest communities.
- Finally, the Advisory Committee is pledged to work with other advisory groups within the Federal Government such as the Council on Graduate Medical Education and the National Advisory Committee on Nurse Education and Practice. The objectives for such cooperation are to maximize outcomes by individual committees while eliminating unnecessary overlapping functions. Further, the advisory groups should also seek opportunities to collaborate with each other (including sharing resources) to address topics of mutual concern.

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