



CCPH SPECIAL SECTION

## Public Policies to Promote Community-based and Interdisciplinary Health Professions Education

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**ABSTRACT** **Context:** *Many rural and inner-city communities in the United States have persistent shortages of health professionals. In addition, health services are increasingly delivered in community-based settings by interdisciplinary teams. Yet, health professions students in the US continue to receive most of their training in urban hospitals.*

**Objective:** *To assess the extent to which national and state government programs in the US that fund health professions education provide financial resources for community-based and interdisciplinary education in the health professions.*

**Methods:** *Literature review.*

**Findings:** *Most national and state government funding provided to health professions schools and clinical training sites in the US is not targeted to community-based and interdisciplinary education. Nationally, the Bureau of Health Professions, however, does administer some targeted grant programs. In addition, a number of states are addressing these needs through targeted appropriations to health professions schools and Medicaid payments to clinical training sites.*

**Recommendations:** *The US experience with government funding of health professions education suggests several questions that policymakers in other nations should consider and several principles for developing effective policies to promote community-based and interdisciplinary education.*

**KEYWORDS** *Community-based education, graduate medical education, health workforce policy, interdisciplinary education.*

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## Introduction

Despite the ample supply of health professionals in the United States, many of its rural and inner-city communities face persistent shortages of these professionals. While the United States has made some progress in this arena, there is major concern that the *education* of these professionals may be inadequate for providing medical care and public health services to under-served populations. In particular:

- Although most primary care professionals in the US practice in community settings, the education of health professionals, especially physicians, continues to occur largely in hospitals (Kassirer, 1996).
- In the US very little attention in education (as well as practice) is given to the knowledge, attitudes and socio-cultural factors that affect the *health of populations*.
- Despite the trend toward multi-disciplinary team practice in many health care organizations in the US, health professions students continue to be trained in isolation from students in other disciplines.

This article presents a case study of governmental funding of health professions education in the US. Here, both national and state governments play major roles in financing health professions education. We describe the major sources of national and state government funding for health professions education and highlight policies and programs aimed at promoting community-based and interdisciplinary education. In addition, we describe the major financial obstacles to expanding community-based and interdisciplinary education. Finally, we offer some general recommendations for governmental funding of health professions education in other nations.

National and state governments in the US fund health professions education because they believe it to be a public good—that is, a service that benefits the public at large and which, because of pricing difficulties, would not be produced at the needed level if left to the private market. Although the community at large, including future patients and health care professionals, benefits from this education, it is impossible to charge future beneficiaries. Health insurance plans and organizations delivering health services would not invest sufficient resources in health professions education because education yields general benefits that do not create a strategic advantage for any particular health plan or participating clinical site. In addition, insufficient numbers of persons would pursue careers in medicine and other fields that require extensive training if students had to pay the full cost of their education.

## Sources of government funding for health professions education

### *Federal (National) Government*

The US federal government funds institutions that train health professionals through two mechanisms: (1) Medicare supplemental payments to teaching facilities, and (2) grant programs administered by the US Bureau of Health Professions (BHPr).

*Medicare.* The Medicare program is the largest source of federal funding for health professions education. Medicare is a health insurance program in which virtually all elderly Americans participate. The program provides health insurance coverage for physician visits, hospitalization and most other health care services except for pharmaceuticals. The Health Care Financing Administration (HCFA), an agency of the US Department of Health and Human Services, the federal government department responsible for health services, administers this program. When a Medicare beneficiary obtains health services at a teaching institution, the institution receives supplemental payments from the Medicare program to cover added costs associated with training.

Most Medicare funding for health professions education is allocated for graduate education in allopathic and osteopathic medicine (Aiken & Gwyther, 1995). A small amount of Medicare funding is provided for education in dentistry, podiatry, nursing and certain allied health professions (cytotechnology, dietetics, hospital administration, inhalation therapy, medical records, medical technology, occupational therapy, pharmacy, physical therapy, and X-ray technology). Medical residents are the only trainees for whom Medicare reimburses costs associated with community-based education. Medicare does not provide financial incentives for interdisciplinary education.

Medicare makes two types of education-related payments. Direct medical education (DME) payments reimburse direct costs of educational programs in eligible professions, such as trainees' stipends and faculty salaries. The indirect medical education (IME) adjustment to payments for patient care is intended to reimburse teaching hospitals for additional indirect costs associated with operating educational programs. DME payments are available for training programs in medicine and all other eligible health professions. The IME adjustment, in contrast, takes into consideration only medical residents. In 1998, Medicare expenditures for DME totaled approximately \$2.2 billion and expenditures for IME totaled approximately \$4.1 billion (CBO, 1995; COGME, 1999; MedPAC, 1999; US GAO, 1994).

*Bureau of Health Professions.* Grant programs administered by the BHPr are another important source of federal funding for health professions education. Like HCFA, the BHPr is an agency within the US Department of Health and Human Services. Although the Bureau's grant programs provide a much smaller amount of funding for health professions education than Medicare, these

programs are important sources of support for community-based and interdisciplinary education because many of them are targeted to promoting these types of educational experiences.

The BHPr generally awards grants to colleges and universities that train health professionals. Eligible health professions include medicine, nursing, dentistry, podiatry, public health, and allied health (including physician assistants). Support for medical education is targeted primarily to preparing primary care physicians. In fiscal year 2001, total appropriations for the BHPr are approximately \$353 million (US BHPr, 1998; HRSA News Brief, December 28, 2000; <http://newsroom.hrsa.gov/NewsBriefs/2000/fy2001budget.htm>).

In addition to grant programs for training in specific health professions, the BHPr administers several interdisciplinary programs. The oldest and largest of these programs is the Area Health Education Centers (AHEC), which received an appropriation of \$33 million in fiscal year 2001. AHEC grants support educational programs in medically under-served communities for students in medicine, nursing, and other health professions, as well as health careers enrichment programs for high school students in under-served communities (US BHPr, 1998). Approximately 1.5 million health professions students have participated in AHEC-funded educational programs since AHEC was founded in 1971 (<http://bhpr.hrsa.gov/dm/ahecacco.htm>). The Health Education and Training Centers (HETC) program provides \$4.4 million in grants annually for projects that address health workforce needs in under-served communities, especially those with high Hispanic populations.

Other BHPr grant programs that support interdisciplinary education are more narrowly focused. The Geriatrics Education Centers program provides \$7 million annually for interdisciplinary education in geriatrics and emphasizes preparing health professionals to deliver geriatric care to senior citizens in underserved communities (<http://bhpr.hrsa.gov/dadphp/gec.htm>). The Quentin N. Burdick Rural Health Interdisciplinary Program provides \$6 million in grants annually for interdisciplinary education for registered nurses and other health professionals in rural areas (HRSA Fact Sheet, January 2001; <http://newsroom.hrsa.gov/factsheets/hrsafy2001.htm>). The AHEC, HETC, Burdick and geriatrics programs all support training in non-hospital sites and also support the development of curricula that address cultural, linguistic and socioeconomic factors that affect the health status of underserved populations and their ability to obtain health care services.

### *State Government*

Most state health policy experts recognize that financial concerns are the principal limiting influence to the growth of health professions training outside of hospitals. Many states are supporting various direct and indirect methods for paying a significant portion of the costs of education in these settings. For physicians, states are creating or expanding primary care residencies and directing medical schools to offer or require community-based

training experiences for generalist-minded students at both the undergraduate and graduate level. For advanced practice nurses and physician assistants, states in recent years have begun paying direct and indirect portions of general funds to support training programs, which typically are based in non-hospital settings.

*Undergraduate Education.* The role of state government in supporting the education and training of health professionals is well established. Historically, state general revenue appropriations for medical, nursing and allied health education have been directed largely to undergraduate training.

Most state funding for medical education is unrestricted, and often those funds that go to single institutions are difficult to isolate and analyze. Although the *amount* of funds that states devote to medical education has nearly doubled since the early 1980s, the *proportion* of allopathic medical school revenue from state and local appropriations in 1999 was only 8% compared to 23% in the early 1980s (Henderson, 1994; Henderson, 1998a). Many nursing and allied health training programs receive public funds as part of a state's allocation of general appropriations to support state colleges and universities (Henderson & Fox-Grage, 1997). A few states, most notably West Virginia, have invested significant resources to support health professions education in medically underserved communities.

The state's comprehensive approach to health professions education includes educating medical students based on criteria designed to foster primary care. Eight "primary health care education" sites under the Rural Health Initiative (RHI) have been established for medical, other health professional and allied health education. State law identifies performance indicators, which have been used to evaluate program performance for the various sites.

A 1991 law obligates the state to commit \$6 million annually to the initiative for 5 years. About \$4 million of the total goes to medical schools and \$2 million to hospitals and clinics to give students "hands-on" experience. Funds for the initiative are lodged in the West Virginia University Health Sciences budget, but other sources of private, user and community support are required. Students from seven health professional schools, including three medical schools (one osteopathic), are rotating through the RHI network (Henderson, 1994).

*Graduate Education.* Since the inception of the Medicaid program in the middle 1960s, many states have paid what they believe to be their fair share of clinical training or graduate medical education (GME) costs. Generally, state support for GME takes the form of some or all of the following:

1. operating subsidies to teaching hospitals and clinics;
2. direct support of clinical education programs such as residencies, internships and preceptorships (and of AHECs in some states); and
3. Medicaid reimbursement to hospitals for certain teaching costs.

Most states also provide specific funding for training in family medicine and primary care residencies. Legislators in many states often view support for residency training as solving problems of access to primary care by rural and indigent populations. Some states have enacted laws that call for studying the feasibility of establishing residency programs in family practice that would utilize both community and hospital clinical sites in rural areas. Recent studies also have found that state support is important to many nurse practitioner and physician assistant training programs (Henderson & Fox-Grage, 1997).

The growing interest by many states in developing or enhancing community-based training programs often is manifest in broader state efforts to pressure health professions schools and teaching hospitals to train more generalists and to improve the overall supply of health professionals in rural and medically under-served communities. These efforts are a major means for states to: (a) achieve some congruence between the public need and existing supply of health professionals, and (b) more carefully account for all state contributions to health professions education (Henderson, 1998a).

In the past 15 years or more, states have implemented or have considered implementing several strategies aimed at enhancing undergraduate and graduate health professions training experiences in out-of-hospital settings. The following are two examples:

1. *Reforming Medicaid policies for GME to pay for residency training in ambulatory care settings.* A growing number of the 45 (of the 50 US) states and the District of Columbia that make some level of payment for GME under their Medicaid programs distribute these funds in a manner that is explicitly tied to public accountability. Ten states require that some or all Medicaid GME payments be directly linked to state policy goals intended to improve the distribution of the health care workforce. Three of these states use GME payments to encourage training of physicians in certain settings (e.g., ambulatory sites, rural locations, medically under-served communities). The goal of encouraging the training of physicians in certain specialties (e.g., primary care) is the most common; it is applied to GME payments by eight of the ten states (Henderson, 1999). One example of a state that has effectively instituted such a policy is Tennessee.

In 1996, Tennessee, under its replacement Medicaid program (TennCare), became the first state to stipulate that GME money flow directly to medical schools rather than to teaching hospitals. Graduate medical education funds now follow residents to all training sites and are distributed to the state's

medical schools to pay the residents' basic stipend and provide conditional stipend supplements that encourage primary care training in community sites as well as the placement of those trainees in under-served areas. This policy represents a radical departure from Medicaid's status quo support for GME before TennCare and the turmoil that followed in 1995 when it briefly stopped paying for GME altogether.

Early problems with TennCare centered on the lack of primary care providers in many rural areas of the state. It was during the process of restoring GME support by TennCare that the need to change the way GME funds were distributed and set certain standards of performance became apparent. The plan developed by the TennCare GME Working Group is to be phased in over a 5-year period. By July 1, 2000, 50% of the aggregate residency positions under the sponsorship of the state's four medical schools must be in one of the primary care specialties. Each medical school now must comply with rigorous annual state reporting requirements (Henderson, 1998b).

2. *Creating requirements or incentives and earmarking general fund appropriations that emphasize community-based education.* State-funded training programs are increasing the number of required and elective clerkships, rotations and other clinical training arrangements, typically in community-based settings, for generalist-minded medical students and residents. Examples include:

- Texas' legislature is the only one to mandate all third-year medical students to complete a clerkship in family medicine and require that all primary care residents be offered a rural rotation (Henderson, 1994; Henderson, 1998a).
- West Virginia's Rural Health Initiative has supported the creation of medical residency rotations in rural areas and the recruitment of students to those rotations.

## **Fiscal Obstacles to Change**

Progress toward expanding community-based and interdisciplinary learning opportunities has been slow and erratic in the US. The vast majority of health professionals continue to receive most of their clinical education in hospital-based programs that offer little interdisciplinary training. Financial barriers are a major reason for this lack of progress.

One of the greatest barriers is the paucity of government funding for community-based and interdisciplinary education. *Medicare* restricts reimbursement for community-based training to medical residents and provides no incentives for interdisciplinary education. Appropriations for BHPr grant programs have not been adequate to provide grants to every health professions school in the US. Most state *Medicaid* programs and other third party payers do

not cover the costs of training in ambulatory settings. Most state appropriations for GME are made to university hospitals with no restrictions on the specialty of the physician being trained or the location of training.

Without the benefit of direct grants or payments, many programs find it difficult to cover the costs associated with developing and operating community-based, ambulatory training initiatives. Community-based education, particularly in medically under-served areas often distant from the academic center, is quite expensive (Boex *et al.*, 2000; Eisenberg, 1989). Many teaching hospitals in the US are experiencing financial difficulties that limit their willingness and ability to subsidize community-based educational initiatives.

## **Recommendations**

In the following section, general recommendations are offered for individuals and organizations in other nations who are concerned with the financing of health professions education. Generalizing from the US experience is difficult because here colleges and universities are independent of the government. As a consequence, government can only provide financial incentives to encourage health professions training programs to expand community-based education; it cannot require training programs to do so. In addition, authority for funding health professions education is divided among the federal government and 50 state governments. States also have the authority to establish requirements for licensure for practice in the health professions and these requirements vary widely across the states. Nevertheless, the US experience suggests some general questions and principles that seem applicable to other nations.

### *Questions for development of public policies*

A number of topics need to be considered when developing public policies to expand community-based or interdisciplinary education.

1. What does the public want from their health professions schools? What are the public's priorities? An appropriate health care workforce? The ability to attract funding for research? Access to the latest biomedical technology? Public health? Community service?
2. How effective are publicly-supported health professions schools in preparing professionals to meet public needs?
3. How can government improve the chances that publicly supported health professions schools will prepare health professionals to meet public needs?
4. What is an appropriate and fair level of government support for health professions education? Should public support for training be directed toward creating new programs or strengthening existing programs?

### *General principles*

If the answers to the questions above indicate that a nation wishes to place a high priority on community-based and interdisciplinary education in the health professions, government policies and programs should incorporate the following principles. Specific policies and programs would vary among nations depending upon the organization and financing of health professions education and health care services.

1. Require all health professions students to complete a portion of their clinical education in a medically under-served area (inner-city and/or rural).
2. Establish measurable performance standards for community-based training and require recipients of government funding for health professions education to meet these objectives.
3. Provide adequate funding to achieve desired levels of community-based and interdisciplinary education.
4. Maximize the number of community-based sites eligible to receive government funding for health professions education.
5. Provide financial incentives for interdisciplinary education (e.g., provide supplemental funding to health professions schools that implement interdisciplinary curricula).
6. Coordinate policies and programs for training health professions students with programs and facilities that provide community-based health services, especially those that provide services to under-served populations.

In summary, the US experience suggests several approaches to using public policy as a means for promoting community-based and interdisciplinary education. The most typical approaches are grants to health professions schools and supplemental payments to health care facilities that provide clinical training for health professions students. Nevertheless, the amount of government funding earmarked for community-based and interdisciplinary education continues to be dwarfed by payments to teaching hospitals for the training of physicians in hospital settings.

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