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I. ESSAY
Changing The Health Care Workforce: Lessons From Foundation-Sponsored Programs
by Debra J. Lipson and Jo Ann Lamphere

Growth in managed care among both privately and publicly insured groups augurs well for those educators and health care leaders who seek the development of a health professions workforce that is more oriented toward primary care. Managed care organizations have enhanced the role of primary care physicians, many of whom have become responsible for coordinating patients’ total care. Compared with typical fee-for-service practices, managed care organizations use more nonphysician primary care personnel, such as physician assistants (PAs) and nurse practitioners (NPs), and have begun to employ other types of health care workers in innovative and cost-effective ways.

In the long term, market forces may become strong enough to have a clear and direct influence on the education and training of health care workers. Such effects will remain muted, however, as long as Medicare, Medicaid, and private payers continue to support direct and indirect graduate medical education that favors specialist training. Furthermore, market forces cannot be expected to address chronic shortages of primary care providers in underserved communities with large uninsured populations. It is even possible that shortages in the supply of primary care personnel in underserved rural and inner-city communities will remain, or become worse, with the shift from “unmanaged” to managed care. Anecdotal evidence suggests that managed care organizations are using offers of attractive salary and benefit packages to lure general and primary care practitioners away from rural areas and small towns. This could make it more difficult for underserved communities to retain essential providers and could worsen the maldistribution of health care resources.

Public support for primary care training also may decline, as Medicare bonus payments and loan repayment programs for health practitioners

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working in medically underserved areas are reduced. As a result, there likely will be fewer mechanisms available to ameliorate the continuing shortage of primary care providers in underserved communities. Finally, as long as nearly 20 percent of the nonelderly population in many states lack any health care coverage, they will be unable to access the primary care offered through managed care plans.

For many years three foundations—the W.K. Kellogg Foundation, The Pew Charitable Trusts, and The Robert Wood Johnson Foundation (RWJF)—have demonstrated leadership and offered philanthropic support to programs that seek to improve the availability of community-based medical care and primary care practitioners. This essay summarizes the lessons that have been learned thus far from a selected group of these foundations’ research and demonstration programs. After briefly describing the foundations’ activities related to primary care workforce development, we review the lessons that are emerging from them; discuss the major policy implications of these lessons, particularly as they relate to government support for health professions and graduate medical education programs; and identify some areas for future research and demonstration projects.

The Programs

In seeking a health care workforce that is balanced between primary care practitioners and medical specialists, the three foundations share a belief that programs for training health professionals are out of step with the evolving health care needs of the public. In addition, nearly all of the foundation-sponsored programs described here try to improve the distribution of primary care resources by building partnerships among governments, health professions training institutions, and communities.

W.K. Kellogg Foundation. Since the W.K. Kellogg Foundation’s inception in the 1930s, the foundation’s programs have brought together educational institutions with community-based organizations to improve health professions education. At the root of every funded project is the belief that if individuals and communities are given the “right” tools (for example, information, education, and technical assistance), they will be able to assess their health care system needs and implement a course of action that meets them. The foundation’s long-term goal is not to simply change the balance between generalist and specialist physicians. Rather, it is to prepare more primary care professionals with the values, skills, and perspective associated with promoting health and preventing illness and with community in its broadest sense.

Two particular initiatives of the Kellogg foundation are directed to supporting community-based efforts to develop a more appropriate health
The involvement of Pew in health professions education and research over the past decade centers on stimulating change in the training of health practitioners to enable them to care more effectively for the public’s health. One of Pew’s current priorities is determining the competencies and skills needed by all health professionals to meet the population’s current and emerging health care needs. Pew also emphasizes training to provide both primary and population-based health services, an approach that assesses the health status, risks, and needs of residents of a community or enrollees in a health plan and seeks improvement in their health status. The Health of the Public Program, for instance, first cofunded by Pew and The Rockefeller Foundation in 1986, and later by RWJF, is facilitating efforts by twenty-eight academic health centers (AHCs) to incorporate a population-based health approach into their training, research, and clinical care missions.

In 1989 the trusts launched the Pew Health Professions Commission, which works at the federal, state, institutional, and professional association levels to promote workforce reforms in response to regulatory and market pressures. The commission seeks to improve the links between health professions education and the care delivery system, train and retrain health professionals in the competencies the commission has identified, and expand the roles of midlevel practitioners to increase access to cost-effective primary and population-based health care.

In concert with the commission, the trusts have embarked on a four-part strategy to improve the provision of primary and population-based health care by appropriately training providers. The trusts are trying to define the primary care system and the roles and responsibilities of practitioners in it; redirect training to community-based outpatient settings (including managed care); determine financing changes needed to support the shift in training; help the public understand what to expect from primary care and how to use it more effectively; and, at the same time, clarify the career options available to health professions students.

The Robert Wood Johnson Foundation. RWJF’s twenty years of investment in education and training of the health professions is anchored in the belief that the health care system is a product of the interaction of many

care workforce. The Community-Based Public Health Initiative links the faculties and students of public health schools with local health departments and community members to work “in partnership” to improve communities’ health status. The Community Partnerships with Health Professions Education initiative seeks to change the way in which primary care professionals of all types are trained so that they learn to work as a team. An extension of this effort addresses graduate medical and nursing education by fostering multidisciplinary, out-of-hospital, community-based training.
people. To the extent that funding can shape the actions of those people and the composition of the workforce, the goals of improved health status and access to care can be achieved, the foundation believes.

The foundation’s programs related to primary care workforce development cover several categories. First, training and leadership development programs identify talented professionals, offer them special skills or training, and help them find positions in which they can bring about change. For example, the Generalist Physician Faculty Scholars Program awards funds to physicians with general internal medicine, family medicine, and pediatrics backgrounds to conduct research, allowing faculty to achieve higher rank within their institutions. Similarly, the Partnerships for Training Program gives NPs and PAS opportunities to obtain advanced training and work in the community.

A second program category includes efforts to increase the diversity of the health care workforce. One of the most recent efforts is Project 3000 by 2000, which awarded a challenge grant to the Association of American Medical Colleges (AAMC) to expand the “pipeline” for all health professionals from underrepresented groups. AAMC members will partner with local high schools to foster an interest in medical careers among minority students.

A third program area focuses on medical schools. The Generalist Physician Initiative, begun in 1991, is an attempt to stimulate the “internal market” for generalist physicians. Fifteen medical schools have been awarded grants to change their admissions procedures, preclinical curricula, clinical clerkships, and residency training programs so that graduates will more likely be trained in community-based primary care settings and choose primary care fields.

A fourth program area concentrates on the development of primary care practice in communities. The Practice Sights Program supports state-level primary care development strategies designed to increase the number of primary care providers and improve delivery of such care in underserved communities. Ten states are involved in fostering collaborations among state agencies, communities, provider groups, and health professions schools to improve the distribution of primary care providers in medically underserved areas.

The Lessons

What have the three foundations’ research and demonstration programs found that can help to close the gap between the education system, with its emphasis on the production of specialists, and the needs of communities and health care organizations for primary care? Since most of the programs
are in the early stages of implementation, information about their long-
term effectiveness is incomplete. Thus, the lessons listed here do not
represent research findings per se. Rather, they represent the collective
wisdom of educators, health plan managers, policymakers, and others re-
garding what seems to work to improve the distribution and, ultimately, the
capabilities of primary care professionals to meet the needs of a changing
marketplace.

One key lesson that emerges is the importance of changing the organiza-
tional culture of health education institutions to support students who
choose primary care careers. Such support must be articulated by university
and health professions school leaders and be expressed in their allocation of
budgets and other resources to the primary care area. Primary care practitio-
ners of the future will need different skills than their training now provides,
and universities and health professions schools must make substantial
changes in curricula and training activities to equip students with those
skills. Strategies for building such skills include providing opportunities for
students to train in community-based primary care settings and managed
care settings, to participate in interdisciplinary education and training
activities, and to gain skills in treating culturally and economically diverse
populations.

Several of the foundation-sponsored projects indicate that support for
primary care practitioners must not stop after completion of residency
programs. In addition to a focus on people, some projects suggest that efforts
to improve the practice environment for community-based generalist phy-
sicians are critical, especially in rural areas. Access to computer information
networks and continuing education programs is useful in this regard. Ade-
quate salaries and reimbursement for services are critical as well. Although
managed care organizations are attracting primary care practitioners with
higher salaries and incentive payments, health professionals who are not
part of these systems also need financial incentives to remain in the primary
care field.

Several projects that seek to increase the number and strengthen the
capacity of primary care clinics highlight the critical role played by loans,
direct financial resources, and technical assistance in ensuring that such
facilities exist at all. For instance, the Primary Care Development Corpora-
tion (PCDC) in New York City, supported in part by RWJF, has a $17
million revolving loan fund that provides up-front planning and develop-
ment funds to public and voluntary nonprofit health providers in unders-
erved neighborhoods. The PCDC also issued a $250 million tax-exempt
bond to provide funds for construction, working capital, and equipment
needs. These efforts are supplemented with technical assistance on con-
tracting with managed care plans and other management issues. The
PCDC's experience suggests that such combined strategies are needed to increase the supply of primary care clinics.

Finally, several programs indicate the advantages of involving community representatives in planning and designing health education and training programs. Collaboration among providers, payers, and consumers in assessing the most critical health problems and service needs in each community can help to reorient the health care system toward prevention and primary care services. Such collaboration may have long-term benefits as well: By collecting baseline information on community health status and services, these projects will be able to evaluate the effects of their interventions in later years.

**Implications For Public Policy**

While these programs say a great deal about needed changes in health professions education and training programs, they also make clear that such programs will be “swimming against the tide” if government policies and financing programs do not provide greater incentives to produce primary care practitioners. The programs point to two important public policy implications.

**Contradictory policies.** First, federal and state government grant programs supporting the development of innovative, community-based training programs for primary care practitioners are dwarfed by the millions of dollars buried in Medicare and Medicaid provider payments and private payer reimbursement that continue to support hospital-based specialty training programs. While foundations can supplement the limited funds for community-based training programs from government sources, substantial progress can be made only when a greater portion of the payments made for direct and indirect medical education to hospital residency programs is redirected into primary care training and supervision in out-of-hospital, comprehensive care settings. Experience gained from several demonstration programs indicates that to reap the greatest benefits, teaching hospitals should be directed to work in collaboration with community-based providers, health professions schools, and managed care organizations to target these training resources in ways that will benefit the entire community.

**Role of states.** Second, state governments have a number of policy levers for affecting the supply of primary care personnel, ranging from direct financing of medical, nursing, and other health professions schools to scope-of-practice laws, reimbursement of primary care services and providers, and recruitment of providers into underserved communities. But, as Carol Weissert and colleagues have found, most states “do not pursue a coherent and comprehensive set of policies toward promoting and support-
ing generalist education and careers of primary care providers in under-
served communities.” Although it remains uncertain which policies and
programs work best in each situation, it seems likely that state policymakers
can make more progress with a coordinated strategy.

Both state and federal policymakers will have many opportunities in the
near future to revisit these issues. For example, the federal government’s
support for graduate medical education is likely to surface in the debate
over how to cut the Medicare and Medicaid budgets. The topic also may
arise in the context of reauthorization for Titles VII and VIII of the Public
Health Service Act, through which the federal government supports pri-
mary care training programs and the National Health Service Corps. Simi-
lar issues will confront state policymakers as they struggle to decide on the
level of support they will provide to institutions of higher education,
whether to support AHCs or public hospitals as a separate Medicaid line
item, or whether to consider changes to scope-of-practice laws for midlevel
providers.

Future Directions

One of the driving forces for the primary care workforce research and
demonstration programs of the future may be significant changes in public
policy such as those described above. Many researchers and policymakers
agree that dramatic changes in the health care marketplace are likely to
create even greater demands for information, research, and demonstration
programs on the training and distribution of primary care practitioners.

Managed care. Perhaps the most important area for future research will
be the impact of managed care and other market forces on the demand for
all types and numbers of health professionals in the years ahead. The extent
to which the “outside market” can spur changes in the education and
training patterns of medical, nursing, and allied health professions schools
is important to understand. It now appears that primary care physicians are
gaining stature and power because of their central role in capitated man-
aged care systems. How does that outside market relate to the market
within health professions schools, and will it produce the “right” combina-
tion of primary care professionals and specialists? Even if short-term market
forces begin to produce changes, will they be sufficient to meet longer-term
and emerging workforce needs?

International medical graduates. International medical graduates
(IMGs) now fill critical patient care roles in many urban teaching hospitals
and are more likely than American medical graduates to choose primary
care fields. If more American-trained physicians fill these roles, will limits
be placed on the number of IMGs allowed into the United States? Con-
versely, if immigration policies change for this or other reasons, will medical schools produce sufficient numbers of primary care practitioners to replace IMGs?

**Physician supply.** The IMG issue leads to the issue of aggregate physician supply. How many physicians or midlevel practitioners are really needed in a reformed health care delivery system? If the future system requires fewer specialists than now exist, is it better to increase the number of primary care physicians, reduce the number of specialists trained, or limit the overall number of residency slots? And if we could answer these questions, would medical schools and AHCs downsize or “rightsize” appropriately? How could all medical schools and AHCs reduce the slots available for training? Should some education programs and hospital residency programs be terminated, leaving the responsibility to others that are streamlined and somehow of higher quality? How will these programs be assessed and by whom? Will explicit mechanisms be used to “rightsize,” or will these decisions be left to the market? From the aspect of patient care, how will access to services by the indigent or severely ill be affected as hospitals “rightsize”? This litany of questions strongly suggests that a clearer understanding of the “black box” of medical school and teaching hospital training programs would be useful to policymakers faced with the task of directing public funds.

**Academic health centers.** Another critical area relates to AHCs and the relations and financial arrangements among them, universities, and managed care organizations. If funds for graduate medical education become more limited, either as a result of congressional action or state Medicaid program contracts with managed care plans, AHCs will be scrambling for new funds. Indirectly, private payers may be paying some of these training costs now, but competition has begun to erode such implicit subsidies. Because of the social good that the AHCs provide, it is important to consider either how they might secure training and research funds from other sources to support residency programs or how they may evolve organizationally in terms of employing and redeploying health professionals. What might be the future effect on the quality of academic programs, on research and highly technical tertiary care, and on the provision of indigent care?

**State issues.** Finally, a number of research topics are particularly important for state policymakers. For example, should states expand NPs’ scope of practice through legislation or leave the responsibility for defining how professionals can best be used and substituted to integrated health systems? Another set of questions relates to access to care. Of the strategies now available to state policymakers to increase the supply of primary care providers, which ones are most effective? What is happening to the delivery...
system in areas that for the past decade have been considered medically underserved? Finally, what is the relationship between the supply of primary care professionals and medical outcomes, in terms of a population’s health status?

**Foundation Investment Strategies**

If current trends in managed care enrollment continue, the United States could have an excess of 165,000 physicians by the year 2000. Nearly all of these doctors are expected to be specialists, although some of them could be primary care physicians.

If a short-term undersupply of primary care physicians may be satisfied by changes in the private health care market, why should foundations invest in primary care training programs at all? First, altering the health professions workforce is a long-term proposition that calls for investment over a prolonged time period. Second, workforce reform is an issue that involves more than improved projections and numbers; the distribution of the health care workforce throughout the United States and its training and competency are critical issues as well.

Furthermore, it remains unclear whether market forces will be sufficiently strong to influence health training programs to produce enough appropriately trained physicians and midlevel practitioners to meet the needs of competitive health plans. And it is doubtful that market forces will do much to remedy chronic shortages of primary care providers in underserved communities with large uninsured populations. Because market forces are not likely to solve all of the problems with maldistribution of health care professionals in this country and, indeed, may exacerbate many of them, private philanthropic initiatives, such as the ones described in this essay, will continue to represent important contributions to producing a health care workforce that can meet the needs of the public and the marketplace.

The initial success of these foundation programs and the foundations’ long-term commitment to changing the health care workforce have created a base of knowledge from which private and public decisionmakers have benefited. But the long research agenda indicates that much work remains to be done. There will be a growing need for foundations, private-sector organizations, and governments to support research that monitors the extent to which market forces will address the need for primary care. If they share the goals of these three foundations, these groups can set expectations for the health professions education system to consider the broader “product”: an appropriately trained primary care workforce that can meet the diverse health care needs of all Americans.
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NOTES

2. This effort builds on earlier collaborative efforts supported by the National Institutes of Health and by other foundations.
4. Based on the views expressed at a November 1994 meeting sponsored by the three foundations and conducted by the Alpha Center.
5. Weiner, “Forecasting the Effects of Health Reform.” It should be noted that projections of physician supply are sensitive to assumptions made in the empirical modeling; those who study the issue may adopt different assumptions in their own research.