

The Role of Social and Community Service in Medical Education: The Next 100 Years

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Abstract

Abraham Flexner's focus on science in medical school curricula was not intended to exclude or marginalize the importance of service in training American physicians. The erosion of service in academic medicine in the century after his report was the result of forces as wide ranging as research priorities, health care financing, and industry's influence. The authors review the historical context of these changes and make the case that

reintroducing service into medical school curricula has never been more important. They describe the impact that neglecting service has had on society, patients, the medical profession, medical students, and medical education. After defining what is meant by social, public, or community service, they go on to detail signature programs at University of Texas Medical Branch, University of New Mexico Health Sciences Center, and Mount Sinai

School of Medicine, focusing on the two major categories of health care delivery and education. These examples, in geographically and demographically disparate schools of medicine, demonstrate that it is possible to successfully reintegrate service into the missions of academic medical centers and medical schools.

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The public interest is then paramount, and when public interest, professional ideals, and educational procedure concur in the recommendation of the same policy, the time is surely ripe for decisive action.

—Abraham Flexner, *Medical Education in the United States and Canada*, 1910

Abraham Flexner established science as the focus and foundation of medical training. However, Flexner's thinking about the role of the physician in society

was actually broader and encompassed both public health and social service. The legacy of his science-based precepts has led medical education and practice to develop in a rigorous, evidence-based fashion that has advanced discovery, improved health care, and prolonged life for most Americans. It has also led to the misconception that medicine is a natural science, as opposed to being a social endeavor that is informed by the natural sciences. As a result, medical training and medical practice have strayed from their original focus on the human condition and the social mission of medical schools. Rapidly advancing technology and pressures due to health care financing, and the resulting relationships with the pharmaceutical and medical device industries, have also contributed to this erosion.

The Flexnerian revolution established academic medicine as a public trust, and the initial decades following Flexner's 1910 report saw a realization of this relationship. Although recent decades have witnessed the erosion mentioned above, the interrelated societal needs of increased access to care and decreased health disparities continue to provide clear opportunities for reversing this trend. Given the service orientation that is increasingly prominent among the current generation of American medical students, a compelling case exists for medical schools to show leadership in providing ample opportunities for

community service learning, through which academic medicine can begin to regain the public's trust.

Our institutions were the 2008 finalists for the Association of American Medical Colleges (AAMC) Spencer Foreman Community Service Award. Despite our vastly different geography, history, and patient demographics, we have each developed and sustained an institutional focus on service and communities in our training programs. The program descriptions included in this paper illustrate some ways in which academic medical centers (AMCs) are simultaneously addressing the needs of our learners and our surrounding communities. We provide a historical context for understanding the role of service in medical training, describe the factors that have pushed it to the margins, suggest a rationale for reinstating it as a core mission of AMCs, and provide some models of best practice.

Flexner's History and Impact

In his 1910 report, *Medical Education in the United States and Canada*, Flexner¹ famously focused on the importance of the laboratory, hospital, and clinic in the medical curriculum. However, at several points he made reference to the public mission, social value, and obligations of the profession. Of the physician's role, he wrote,

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His [sic] relation was formerly to his patient—at most to his patient's family; and it was almost altogether remedial. The patient had something the matter with him; the doctor was called in to cure it. . . . But the physician's function is fast becoming social and preventive, rather than individual and curative. Upon him society relies to ascertain, and through measures essentially educational to enforce, the conditions that prevent disease and make positively for physical and moral well-being.¹

Flexner left the means whereby society was to receive the benefits of medical education largely, if not wholly, implicit in the caliber of medical professionals to be produced and the quantity of charity care to be provided by medical schools. Despite including quite detailed attention to the proper use of laboratory, clinical, and didactic teaching, Flexner never addressed methods of ensuring that medical education fulfilled its social obligation.

With the implementation of Flexner's recommendations in the decades after his report, inattention to societal needs and public health insinuated itself into medical schools' *modus operandi*. As Kenneth Ludmerer²(p25) wrote,

The new system fostered a narrowing of medical schools' interests to issues of technical concern. From the beginning, the focus of the modern medical school was on disease organically defined, not on the system of health care or on society's health more generally.

Despite the narrow and reductionist educational focus on diseases in individual patients and the exclusion of public health concerns, medical schools were held in great esteem during the post-Flexner era as a result of their many contributions to society. These included a substantial improvement in the quality of medical graduates, advances in disease treatment stemming from publicly funded medical research, provision of ample amounts of charity care, and responsiveness to societal needs during times of war and population expansion. These were clearly and rightfully perceived as public goods. At the same time, the widely held image of medical schools and their faculty as public trusts was reinforced by their virtuous institutional culture: Faculty accepted lower salaries than private practitioners, avoided commercialization of discoveries or partnerships with corporate interests, and were committed to intellectual honesty and integrity.²(p337–343)

During the second half of the 20th century, increased emphasis on faculty salaries, lucrative technology transfer arrangements, close consulting and research relationships with pharmaceutical and device manufacturers, and highly publicized if infrequent examples of academic dishonesty heightened public concern over real and potential conflicts of interest and tarnished academic medicine's altruistic image.²(p337–343) There is ample evidence during this period of a decline of "social-trustee professionalism" in favor of the newer "expert professionalism," with its focus on the application of expert knowledge.³

At the centennial of Flexner's report, the health care system is prominent in the American psyche. The political discourse on ever-soaring costs and suboptimal quality of care fails to distinguish AMCs from nonacademic providers, reflecting a subtle but undeniable loss of academic medicine's former status as a valued public trust.

Science and Technology, Practice, and Economics

Two major events during the 20th century profoundly impacted, and perhaps undermined, the social mission of medical schools. First, President Harry Truman was unsuccessful in his attempt to enact legislation establishing a national health plan in 1945, and, second, the National Institutes of Health (NIH), which was initially conceived as the chief U.S. public health agency, increasingly turned its focus away from public health and health services research to basic biological and medical problems.⁴

Fueled by the NIH and the pharmaceutical and device industries, the trend toward medical and technical specialization shifted physicians' emphasis from a holistic concern for the patient ("Mrs. Padilla," someone with an identity beyond her illness) to a reductionist focus on the disease ("the inflammatory breast cancer in room 324"). This has been paralleled and reinforced by the insurance industry and medical economic models that emphasize acute inpatient and procedure-oriented care rather than public health and disease prevention. The resulting intense pressure among AMCs for clinical reimbursement and basic science research funding has often been at the expense of efforts to improve health

services research or access to care for the poor.

One late-20th-century repercussion of this paradigm shift has been a negative attitude toward primary care within AMCs,^{5,6} with disastrous effects that are only now being fully realized. Data emerging from the Dartmouth Atlas of Health Care⁷ demonstrate a lack of correlation between the number of specialists and positive health outcomes in a community. Starfield and colleagues⁸ research demonstrates the correlation between an increase in primary care access and measurable community health improvement. Several authors note that an imbalance of primary care providers contributes to higher health care costs and poorer outcomes.^{9,10}

As a result, patients with multiple chronic illnesses find themselves with five or six different doctors, each one attempting to find the best treatment for the disease related to his or her organ-based specialty, but none taking responsibility for coordinating care. It is not surprising that dangerous medication interactions and duplication of diagnostic testing occur, patients receive contradictory advice, and ultimately preventable errors result in hospitalizations.

But there is some hope. By enhancing funding for community-based participatory research, the NIH has recognized that to optimally affect community health, researchers must engage community members and address community priorities. And the looming health crisis fueled by an aging population but shrinking access to primary care has raised the alarm that AMCs, hospitals, and the health professions can no longer "let the marketplace" sort out access to health care.

Why Act Now?

Society and patients

Contrary to many misconceptions about health care coverage, access to quality health care for the majority of Americans is a lifelong struggle and is often achieved too late, when the ravages of preventable chronic diseases have reached crisis levels. Poor access to health care continues to be a predominant theme in the lives of over 47 million Americans who lack

insurance¹¹ and for a large number of vulnerable and historically marginalized groups, such as the underinsured, the homebound elderly, the mentally ill, and the homeless.¹²

In a landmark report on unequal treatment in health care, the Institute of Medicine (IOM)¹³ concluded that access to health care, as defined by insurance status or the ability to pay for care, is one of the most important predictors of the quality of health care across races and ethnicities. The current economic climate has brought with it an unprecedented expansion of the under- and uninsured, the true impact of which we may not appreciate for decades. Our current system is not only perpetuating, it is actually escalating injustice and inequity in health care.¹⁴

Poverty and lack of health insurance contribute to a dependence on a health care safety net: smaller, dedicated, but frequently fragmented and financially fragile groups of providers at public hospitals, community health centers, clinics, and health departments that, by mission or mandate, constitute the urban “safety net” for health care.^{15–17} This system perpetuates conditions under which physicians are educated, are trained, and practice in a reactionary environment, not one that is proactive and preventive. This in turn creates inadequate responses to, and the persistence of, disparities in health care outcomes.

The current focus in medical education on a biomedical model and organ-specific interventions, rather than on characteristics of the family unit, the community, and the social and physical environment that contribute to health and disease, is inadequate. To prepare students to better address the health care needs of society in the future, medical schools will have to reexamine admissions policies, curricula, field placements, faculty promotion and tenure procedures, and affiliations with local health departments, community organizations, and policy makers.

Integrating meaningful social and community service into medical education is a critical first step in addressing the sociocultural, economic, political, and discriminatory root causes of health disparities. An infusion of public service, advocacy, and community

engagement through the lens of social justice must emerge as a core principle of teaching, clinical practice, administration, and management in order to align institutional priorities, activities, and incentives with societal needs.

Our profession and our students

In the midst of a health care system in profound crisis, the importance of linking public service to medical training has become crucial not only to the integrity of the medical profession but to the institution of academic medicine itself. Steven A. Schroeder,¹⁸ president and CEO of The Robert Wood Johnson Foundation, makes a compelling argument that despite the substantial allocation of public funds to AMCs to improve public health, AMCs continue to strive for breakthrough discovery in technology-driven research and a high base of referrals for specialty services rather than focusing resources on primary care for highly vulnerable patients in the communities they serve.

Throughout the 20th century, a significant proportion of the burden of providing uncompensated care for the poor and vulnerable has fallen on the AMC.¹⁹ Market forces have made it more difficult for AMCs to offer this safety-net care,²⁰ and this mission has also deteriorated from a proudly accepted duty to an unsavory obligation that negatively impacts the bottom line. Yet physicians must not turn their backs on their duty to provide for the large and growing number of vulnerable people who continue to stress the health care system by relying on avoidable emergency and in-hospital services instead of preventive care.^{21–24}

A trainee or practicing physician cannot afford to face an encounter with an under- or uninsured person with complacency. Such complacency has been described by Schroeder²⁰ as morally offensive and by leading health policy experts as the impetus for medical school curricula to go beyond merely exposing and describing the inequities, to testing interventions that strive to eliminate disparities in health care delivery within their home institutions.²⁵

The seminal 2001 IOM report, *Crossing the Quality Chasm: A New Health System for the 21st Century*,²⁶ urged medical

training programs to change the way physicians are educated to meet the “Six Aims for Improvement” and the “Ten Rules for Redesign of the Healthcare System” necessary to improve health equity for U.S. residents. It is clear that curricular redesign is necessary to better equip our future physicians with the tools that will help them navigate the system and advocate for their most vulnerable patients.

Medical students are ripe for curricular changes that more comprehensively address inequities in health care and approaches to public health. In a 2005 national survey, Agrawal and colleagues²⁷ found that nearly half of their medical school respondents were dissatisfied with their current coursework in addressing health policy, health care delivery, and health care reform. Nearly 90% of their respondents wanted increased exposure to these essential topics. Recent AAMC Graduation Questionnaire findings reveal a marked increase in students’ desire to work with underserved populations.²⁸

Our students have rightfully aired serious concerns that they are not being adequately prepared to deliver optimal health care in an environment that inherently provides unequal access to care on the basis of ability to pay. Educational systems that fail to address access to quality care for the vulnerable and disadvantaged in communities surrounding our largely urban AMCs will cripple future generations of doctors, who will perpetuate a broken health care system that fails to deliver any reliable model of care to the uninsured—over 20% of the American population.²⁰

Our curricula

To regain their position as a public trust, medical schools must make rigorously improving the health of the public a pressing agenda. It won’t be enough for medical trainees merely to “see” vulnerable populations; the *quality* of experiences with the indigent and underserved during medical training has more reliably predicted the likelihood of future care of the indigent than the extent or volume of exposure to these populations.^{29,30} Dedicated mentors who uphold and practice the ideal of public service and the ethic of social responsibility in medicine are the key component to these successful experiences.³¹ Mentors with such

aspirations are difficult to find and need to be identified, nurtured, and rewarded in order to foster this mission.

Recent surveys have shown that despite the accelerated growth in the uninsured, charity care by health care professionals is actually waning.^{32,33} However, clinician-educators who work within institutions that provide the infrastructure to support public service, that promote faculty who deliver care to the underserved, and that respond favorably to student demands for service opportunities are more likely to devote a substantial portion of their time to public service and volunteerism.³⁴ Mentored service-learning opportunities and experiential curricula that foster quality care of vulnerable populations must be mainstream components of current medical training and are desperately needed if we are to train a next generation of physicians who are ready, able, and willing to tackle this crisis in health care.³⁵

Service: I Know It When I See It

We must begin with a definition if we are to ensure that our message and impact are clear. Terms like social service, public service, or community service are often used interchangeably. In using the word “service” in the context of medical education, we are referring to personal or institutional voluntary actions that provide health care to and advocacy for a medically indigent person or community. The action must be voluntary because commitment and self-sacrifice, whether individual or institutional, are the key.

With this definition in mind, a trainee or faculty physician caring for an uninsured patient on the wards is circumstance; the decision to care for that person is not voluntary and requires no altruistic personal sacrifice. In contrast, that same student or faculty physician volunteering in a free clinic is truly providing public or social service. According to this definition, a required rotation in a free clinic can be considered service learning, but the work is not service in its purest sense. Nonetheless, the institutional decision to support that clinic and care for that uninsured patient is voluntary and may impart, or role model, a sense of service and self-sacrifice to the learner. As discussed below, there is evidence to support this notion.

Finally, service is a core precept in definitions of professionalism set forth by the AAMC (service is described in the first report of the Medical School Objectives Project³⁶ as “a commitment to provide care to patients who are unable to pay, and to be advocates for access to health care for members of traditionally underserved populations”) and the American Board of Internal Medicine³⁷ (service is defined in both the “Principle of Social Justice” and the “Commitment to Improving Access to Care”). Interestingly, it is not addressed as a general competency for graduate medical education in the Accreditation Council for Graduate Medical Education’s³⁸ Outcomes Project.

Signature Programs

What curriculum approaches can help to achieve these aims? Although most of the published literature on this topic focuses on the immediate effects of service learning activities on knowledge and attitudes toward community service, some evidence suggests that the effects of such experiences may stimulate a more durable commitment to genuine service. O’Toole et al³⁹ showed that spontaneous volunteerism among second- and third-year primary care medicine residents rose from 41.2% to 100% after institution of a required service learning rotation for first-year residents. Categorical medicine residents, for whom the first-year service experience was optional, showed no similar increase. A report by Davidson⁴⁰ indicated that over 90% of students in their last year of medical school felt that a first-year service learning activity had influenced their career choice. The Liaison Committee for Medical Education’s 2007 adoption of an accreditation standard requiring all schools to provide sufficient opportunities for students to participate in community service should facilitate further study into the short- and long-term impact of such experiences on trainees’ attitudes and behaviors.

We offer examples of programs already in place at our institutions to illustrate firsthand how health care delivery and education rooted in the mission of social justice can encourage true service among medical trainees.

Health care delivery

University of Texas Medical Branch. *Frontera de Salud* is a service organization founded and staffed by University of Texas Medical Branch (UTMB) medical, nursing, and health professions students whose mission is threefold: (1) to deliver cost-effective care to communities in need, (2) to further the clinical competency of the student volunteers, and (3) to encourage the volunteers to reflect on the profession of health care as a moral practice.

During third-year clerkships at public clinics in the Rio Grande Valley of South Texas, UTMB medical students were inspired by the misfortune of the working poor, for whom health care was often inaccessible. To aid these patients, they began the *Frontera de Salud* service mission. Six weekends each year, teams of medical, nursing, and other health professions students make the 800-mile round-trip from Galveston to south Texas to conduct well-woman clinics at the Brownsville Community Health Center (BCHC), as well as health fairs and home visits in Cameron Park, an impoverished *colonia* on the outskirts of the city. During clinics at the BCHC, *Frontera* teams perform gynecological and breast exams, well-woman check-ups, and wellness counseling, all supervised by a clinician who consults with students concerning suspicious findings and arranges for physician follow-ups. After clinic, the students travel to Cameron Park to conduct home visits and, on Sunday, return for a community health fair where Cameron Park residents are screened for blood pressure and blood glucose and undergo other chronic disease monitoring. To prepare students for these experiences, volunteers participate in extracurricular tutorials focused on the well-woman exam, home visits, and preclinical management of prevalent diseases, as well as preventive services based on the promotion of healthy lifestyles.

These volunteer activities provide health professions students opportunities to perfect burgeoning clinical skills, gain familiarity with community-based preventive services, learn about the social determinants of health, and express the altruistic service ideal of the health professions. Intrinsic to the *Frontera* experience are discussions of ethical

practice, cultural sensitivity, and professional responsibility.⁴¹

In addition to the volunteer weekend trips, formal *Frontera* electives allow motivated students to receive academic credit for more extended service to the community. Through these activities, students not only learn the challenges and strategies of providing access to care but also gain experience as advocates of access for the medically underserved.

Frontera's commitment to Cameron Park has resulted in the creation of a permanent health care infrastructure, including the establishment of a satellite clinic in the *colonia* as well as a community-based health education and promotion program. The community-based program now employs five *promotoras de salud* (lay health educators) and a full-time community nurse delivering lifestyles education, nutrition, and fitness programs to the 10,000 residents of Cameron Park and surrounding communities. Dissemination of the *Frontera* model has occurred through the program's expansion to include chapters at the University of Texas Health Science Centers in San Antonio and Houston, involving hundreds of health professions students enabling the organization to reach out to additional underserved Texas communities in the Webb, Nueces, Bexar, and Galveston counties. These successes have been recognized and supported by the AAMC's "Caring for Communities" award and funding surpassing \$2 million from a variety of sources, including the UTMB President's Cabinet, the University of Texas System Office of Health Affairs, the Texas Department of State Health Services, and the University of Texas Academy of Health Science Education. *Frontera's* history illustrates how a required student experience can help AMCs nurture altruism, stimulate community service, improve public health, and restore public trust in communities they serve.

University of New Mexico. New Mexico has the third-largest frontier population in the United States, the second-highest medically underserved population, and fewer than average physicians per capita. With a commitment to serving the entire state, the University of New Mexico (UNM) Health Sciences Center (HSC) has pioneered the Health Extension

Regional Offices (HEROs) program.⁴² It is based on the land grant universities' agricultural Cooperative Extension Service, whereby extension agents of the university are placed in every county to educate local farm families in the latest science and technology to improve local productivity and quality of life. Similarly, UNM HSC-trained HERO agents across the state connect community health priorities with appropriate UNM HSC expertise and resources in any mission area—education, clinical service, research, or health policy. HEROs focus on the health of impoverished and marginalized populations by reducing health disparities and addressing the underlying social determinants of disease.

HERO agents' contributions are wide ranging. One, a Navajo social worker, collaborated with a UNM medical student and a tribal Cooperative Extension agent working on the eastern Navajo reservation to create a health careers summit for Navajo middle-school students. The intervention was designed in response to the tribe's desire to keep youth in school and "grow their own" health professionals. The successful summit featured hands-on demonstrations of careers in medicine, nursing, pharmacy, and dental hygiene. The program was followed by assignment of mentors and plans for follow-up summits.

A second HERO agent who directed a health professions branch campus in the southeast New Mexico town of Roswell responded to an urgent call from the state's largest food bank. The bank was concerned about the many "food deserts" in that area of the state—rural frontier towns far from full-service grocery stores. In these food deserts, almost all children were on free lunch programs, and food insecurity was high, but the community had not established food pantries for monthly food distribution to needy families. These communities did, however, have ready access to convenience stores and fast food restaurants on the highways. As a consequence, rates of obesity and diabetes are highest in these areas. The bank believed that health screening and referral services coupled with food delivery would encourage the food desert towns to establish pantries. It worked. UNM students volunteered to man the

mobile health vans, and pantry food access has now spread to five new sites.

Both examples illustrate how HEROs invite health science students to engage in community-based service learning experiences that address important social and economic determinants of health outside the traditional medical model.

Mount Sinai School of Medicine. Mount Sinai Visiting Doctors (MSVD) is the nation's largest academic home care program, providing medical care and psychosocial support to homebound patients and their families. The program was modeled after the Little Sisters of the Assumption, a community family health service that has been providing care to indigent residents in East Harlem for over half a century.

MSVD makes more than 5,000 home visits each year to over 1,000 patients throughout Manhattan. Services include 24-hour physician availability, social work case management, collaboration with community social service and nursing agencies, and care coordination during hospitalization. Our patients range in age from 20 to 104, with an average age of 81 years. About one third of our patients receive palliative care in the home, and of those who pass away, almost two thirds die at home.

In addition to medical history and physical exams, patients are assessed for nutritional risk, functional capacity, depression, home safety, advance directives, symptom burden, and elder abuse.

Home visits provide an opportunity for trainees to appreciate critically important but typically invisible aspects of a patient's life, such as family, poverty, and culture. Every Mount Sinai School of Medicine (MSSM) medical student, internal medicine resident, and geriatrics fellow rotates in the program.

In 2003, MSVD started the New York Metropolitan Area Consortium on House Call Medicine (www.machcm.org) to expand services for the homebound and increase collaboration and education for home care providers. Examples of our community-based research projects include assessing and alleviating caregiver burden, recognizing the predictors of dying at home, and identifying ways to

reduce hospitalization and emergency room use.

Most important, MSVD sees itself as an advocate for the homebound. The program successfully works with the Medicare Rights Center and the New York State Pharmaceutical Association to address inequities in medication coverage.

Education

UTMB. At UTMB, we have formally broadened the traditional biomedical model of medical education to include five themes that are essential for the modern practice of service-oriented and socially responsible medicine: public health and prevention, evidence-based medicine, health care delivery (including quality, cost-effectiveness, and interprofessional teamwork), health care economics and policy, and professionalism. The societal obligations of physicians and academic medicine are addressed across these five themes. Integrating these themes into required courses and clerkships throughout our four-year curriculum ensures that all students will acquire and demonstrate competence before graduation. In addition, all UTMB senior medical students complete a service project in the community where they take their required ambulatory community medicine selective.

For UTMB students with a deeper interest in public health and service learning, there are optional scholarly tracks in global health, public health, rural medicine, and bilingual medicine. These tracks provide students with five to six months of classroom and service learning experiences during the four-year curriculum and require a scholarly product. Selective and elective credits are awarded for these experiences. Successful completion of a scholarly track is recognized on the student's transcript, in the commencement program, and by a certificate of completion included with the diploma. For those wishing to pursue more extensive education and training, a five-year combined MD-MPH program is available.

UNM. The public health certificate program at the UNM School of Medicine integrates meaningful community service into medical education. All medical students matriculating in 2010 will be

required to obtain a 15-graduate credit public health certificate, and all residents are offered the opportunity. Focus areas include the social determinants of health and disease, disease prevention and health promotion, development and advocacy of health policy, community participation, and social responsibility. This project is intended to address disparities in health by educating 21st-century medical students and residents to apply skills and concepts related to public health and poverty medicine. The planning of this initiative was made possible by an AAMC-Centers for Disease Control and Prevention grant for the creation of a regional public health education center.

The public health certificate program fulfills a social contract to improve the health of communities in two ways. It links medical students, residents, and faculty with communities to address unmet needs. More important in the context of this article, it lays the foundation for future service by (1) stimulating interest in communities, (2) including a population perspective in thinking about causes of and potential solutions to health problems, and (3) giving students skills, such as training and experience in advocacy, that go beyond the biomedical model.

Finally, the public health certificate program gives students a choice regarding the type of community projects, interventions, and research they pursue. It recognizes that the integration of public health concepts and medicine cannot be limited to periodic community contact but must pervade all phases and venues of the curriculum, including the dominant hospital rotations. There, students are asked, "How could this admission have been prevented?" and "What policy changes will improve the quality of care and health outcomes of your inpatients?" Students and residents have responded to these questions by making important changes in clinical services.⁴³

MSSM. At the East Harlem Health Outreach Partnership (EHHOP), students, volunteer faculty, social workers, nutritionists, and community representatives collaborate to address the complex health care needs of East Harlem's uninsured. This service learning free clinic advances humanism by

training lifelong advocates and leaders in health care for the poor and underserved. Although it is entirely voluntary, nearly 80% of the Mount Sinai student body work to staff the clinic.

EHHOP's core beliefs about the connection between public service and medical education are

- Faculty and students must work collaboratively to optimally meet the educational needs of students.
- Students need and want ongoing meaningful exposure to underserved populations so that they can be optimally trained to serve as advocates and humanistic health care providers.
- In the process of developing and managing an outreach program from the ground up, students learn more about the population they serve, its health care and socioeconomic needs, and leadership and advocacy skills than they otherwise could in the traditional curriculum.

Volunteer faculty oversee patient management and role model ideal clinical and advocacy skills while students staff all departments. An on-site social worker and psychiatrist actively teach students about mental health needs, social stressors, and benefits enrollment and emphasize the notion that effective medical care must be multidisciplinary.

EHHOP students are paired with patients and supervised jointly by teaching seniors and faculty. Students are responsible for navigating the benefits process for qualified patients, advocating on behalf of patients for care traditionally restricted to the insured, and participating in cost-effective and multidisciplinary decision making.

The teaching seniors are a group of highly accomplished senior medical students specifically recruited because of their interest in honing their teaching skills in an active clinic setting. Their teaching opportunities include the medical management of patients as well as opportunities to convey the socioeconomic barriers to effective management, the ethical quandaries in caring for the medically underserved, and the model behaviors necessary to become advocates for the uninsured.

The crucial ingredients to this successful model for service learning are the many

opportunities for collaboration and shared learning between faculty, students, and social workers. Because of the complexity of navigating health care for the uninsured, each opportunity for patient care is thought out meticulously and delivered by an array of students in consultation with faculty representing various disciplines.

For example, an insured middle-aged woman who presents with vaginal bleeding would simply undergo an ultrasound and endometrial biopsy to rule out a malignancy. At EHHOP, such a patient requires a student–radiology liaison to set up the ultrasound appointment in a timely fashion. The student clinical team must confer with the volunteer attending to understand the ultrasound findings and determine the course of treatment. The students must also ensure patient understanding and address patient concerns while simultaneously learning how to deliver bad news, particularly when resources are limited. The student–social work liaison coordinates with benefits enrollment to assess the correct charity scale level of payment for a gynecology referral. The student–referrals liaison coordinates with gynecology to obtain a timely appointment and discusses the case with a gynecologist on faculty to obtain approval for reduced-cost services.

Ultimately, this case is presented by students in various educational settings to allow the maximum number of students to learn the complexities of the pathophysiology, systems navigation, cost-effective diagnostic and management decision trees, sociological and psychological impacts on the patient, and health care disparities. To make these teaching experiences more meaningful than the traditional curriculum, they are managed by teaching seniors and knowledgeable faculty, and they provide opportunities for discussion about creative and ethical ways to manage the uninsured.

Conclusions

Given the current state of health care in the United States, the current Flexnerian model of medical education must be expanded to place social responsibility and community service on par with science as the basis for medical training. The recent report by the Robert Graham

Center and Josiah Macy, Jr. Foundation⁴⁴ explores the relationship between training and the health care workforce career decisions made by students and residents. Among the report's nine final recommendations, the one that has the greatest bearing on what and how we teach is number five: "Shift substantially more training of medical students and residents to community, rural, and underserved settings."⁴⁴ The report notes that these clinical settings "are associated with profound changes in students' ultimate specialty and location of practice."⁴⁴ This comprehensive and timely study reinforces the notion that a focus on service in the medical school curriculum can and must have a significant impact if we are to "secure access to sustained health care relationships for all people in the United States."⁴⁴

Looking forward to the next 100 years, our curricula must revolve around patients and their communities, as opposed to disciplines or the needs of the profession. The context for the clinical care we deliver, the science we create, and the education we provide must be the medically disenfranchised. Underserved communities are the instructional setting that allows schools of medicine to make service the unifying concept of a medical education. Care of the underserved (1) allows AMCs to fulfill their duty to society, (2) instills in our trainees an understanding of and empathy for the plight of the uninsured, (3) teaches our students the importance of lifelong advocacy, leadership, and professionalism, (4) provides trainees insight into the shortcomings of the American health care system and motivation to work for its improvement, and (5) improves the health of the communities in which AMCs are located. These are the greatest manifestations of integrity and humanism to which our students can aspire.

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