Addressing the Primary Care Deficit: Building Primary Care Leaders for Tomorrow

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Background

On July 1, 2010, the Johns Hopkins Hospital will launch an innovative combined internal medicine–pediatrics (MP) residency program in Baltimore, MD, to prepare physicians to care for inner-city families and to lead urban primary care during the next century. Ultimately, this program will produce physician leaders who can serve as system-level agents of change while providing effective, longitudinal, comprehensive, coordinated, person-focused care for the inner-city patient.

Primary care is an integral component of a well-functioning health care system.¹ Unfortunately, the number of residents entering primary care is declining. According to the Alliance for Academic Internal Medicine, Senate Finance Committee Chairman Max Baucus, Council on Graduate Medical Education, Association of American Medical Colleges, and others, the United States is facing a physician shortage and primary care crisis.^{2–5} With impending health care reform emphasizing the critical role of primary care, the emergence of primary care physician leaders is crucial.

Baltimore—East Baltimore in particular—is a prime example of a major city with a health care shortage, as determined in the 2008 Maryland Physician Workforce Study⁶ sponsored by the Maryland Hospital Association and the Maryland State Medical Society. The November 2008 RAND Corporation health study⁷ provided an in-depth analysis of ambulatory care–sensitive hospitalizations and emergency department visits among Baltimore City’s residents and concluded that the lack of primary care leads to many unnecessary emergency room visits and hospitalizations. RAND estimated that Baltimore City might need 130 000 to 159 000 additional primary care visits, concentrated in areas where primary care capacity is particularly constrained.⁷

Unlike other areas, cities face a workforce crisis, while simultaneously contending with health problems that face the inhabitants of the inner city. These include chronic disease, substance abuse, poverty, behavioral issues, psychiatric illness, and health care disparities. Lack of access to primary care exacerbates these issues, and addressing them requires leaders in primary care.

The Johns Hopkins Internal Medicine–Pediatrics Program

In Baltimore, Johns Hopkins plays a crucial role in the health care of the underserved. The departments of internal medicine and pediatrics consistently produce leaders in specialty medicine and research, but have generated few leaders in primary care. We have designed our new MP residency program to train physicians in the inner-city, outpatient environment. The dual certification in internal medicine and pediatrics will prepare our graduates to comprehensively care for patients of all ages throughout the entire life cycle, and the urban health emphasis will help them to address health disparities. Our MP program can be a powerful model for addressing the national shortage of primary care providers. A study by the Robert Graham Center⁸ revealed that many physicians choose careers in specialties other than primary care. Our program intends to substantially shift residency training to primary care and to underserved settings. Our MP urban primary care training program will stress patient and provider relationships, while keeping effects of the family and community in perspective.⁶ Our resident physicians, through experience, will realize that primary care involves caring for individuals in the full social, environmental, behavioral, and economic framework.^{1,6}

Curricular Foci

Our program will couple traditional MP curriculum with expanded training in the needs and problems prevalent in urban settings, such as psychiatric illness, urban violence, and substance abuse. Throughout, there will be a focus on the issues that disproportionately afflict an urban environment. These issues will be addressed and tackled on a regular basis, as the residents care for their patients via case-based conferences. Moreover, the residents will have specific rotations dedicated to the following topics.

Urban Health

Through a partnership with the Urban Health Institute, residents will learn methods to minimize barriers to care

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and maximize care opportunities, collaborate with community health workers to provide in-home or in-community interventions, and forge bonds with the community by meeting community leaders and participating in outreach activities.

Public Health

The Baltimore City Health Department (BCHD) will provide clinical experiences as well as policy and program development. Residents will spend time at the Health Department, learning about the scope of clinical services, observing and participating in programs, and helping to contribute to policy and program development.

Substance Abuse

Residents will participate in an intensive 4-week rotation as well as a longitudinal experience. Residents will perform universal screening, incorporate evidence-based practices for early intervention, make appropriate patient referrals to specialized treatment programs, and practice treating opioid addiction with sublingual buprenorphine in the ambulatory setting. They will work with faculty who have specialty training in addiction medicine, and the necessary waivers to prescribe buprenorphine (a semisynthetic replacement drug for opioid addicts). Working longitudinally with patients who have substance abuse issues will be good training for the residents, preparing them for dealing effectively with this patient population.

Psychiatry

Residents will participate in a 4-week rotation as well as a longitudinal experience. Residents will receive enhanced psychiatry education emphasizing diagnosis of major psychiatric illnesses, outpatient treatment of major depression, identification of patients with dual diagnoses, and assessment of patients at risk for violent, antisocial, or suicidal behavior.

Urban Violence

Residents will perform domestic violence/sexual assault evaluations for children and adults. They will analyze the impact of domestic violence while providing collaborative medical care. They will join the police department for their monthly domestic violence autopsy conference devoted to systems analysis and process improvement.

Care for Patients With Human Immunodeficiency Virus

Residents will care for patients infected with human immunodeficiency virus (HIV) in a federally qualified health center. This rotation will allow residents to gain expertise in outpatient HIV care and experience how care is delivered in such centers.

Prison Medicine

Many of our patients (juveniles and adults) will have spent time in the prison system themselves or know someone who

has. The best way to appreciate how this affects the community is to become involved in the type of care offered in correctional institutions. Our residents will assist in providing intake examinations, make recommendations regarding laboratory tests and further diagnostic evaluations, and help perform episodic and health maintenance evaluations.

Setting

The residents' continuity practice will be a cornerstone of the program. Our residents will have clinic once weekly (at minimum) during inpatient rotations, but during ambulatory or urban health rotations, our residents will have clinic 2 to 3 times per week. They will also have ambulatory care block time. The setting for the residents' ambulatory practice is the East Baltimore Medical Center (EBMC), located in one of the most underserved and disadvantaged communities in the city. It is the epicenter for Johns Hopkins' new health zone community outreach program, The Access Program. This program allows our patients access to specialty care at the Johns Hopkins Medical Center. The EBMC-MP clinic will be specifically designed to facilitate patient-centered medical home (PCMH) care-delivery systems. This system is a team-based model of care led by a personal physician who provides continuous, accessible, and coordinated care throughout a patient's lifetime.

Multidisciplinary Care and Learning

The MP practice will also be a paradigm-training model in which residents and nurse practitioner (NP) students work and train together as part of an NP student/urban health MP resident interprofessional educational initiative. In our model, NP students and MP residents will learn with, from, and about each other, using a "communities of practice" model.⁹⁻¹¹ This will facilitate the personal and professional development of these individuals, promote collaboration, and improve the quality of care. As primary care delivery continues to evolve, the ability to lead and work within an interdisciplinary team will be crucial and our residents will learn multiprofessional, patient-centered, and relationship-centered care in a collaborative environment.¹²

Our program combines core MP curriculum with specialized training in urban health and primary care to create uniquely trained physicians. It is an example of Johns Hopkins Medicine's commitment to pioneering programs in medical education and patient care. While there are resident clinics that use a multiprofessional model of care, we know of no other model where NP students work and train with MP residents. Our approach will place MP residents and NP students in the same environment from the outset of training. Junior residents and NP students will learn to care for the same patients in one clinic from the outset of training. They will share patient panels and work as practice

partners while learning about each other's strengths. Upper-level residents will serve as mentors and preceptors for NP students. Residents and NP students will share a common ambulatory curriculum and patients. Through this interaction, learners will gain a greater knowledge of each other's capabilities and comfort levels and will learn the skills of interprofessional collaboration while caring for complex community-based patients.

Competency Focus

All residents of the urban MP program will demonstrate competency in the Accreditation Council for Graduate Medical Education's 6 core competencies: patient care, medical knowledge, interpersonal and communication skills, professionalism, practice-based learning and improvement, and systems-based practice. Our residents also will need to demonstrate a commitment to the community, superior culturally competent communication and motivation skills, and an enhanced understanding of innovative systems that can change health care delivery.

A major focus will be effective cross-cultural communication. Drawing on patient-centered and culturally competent approaches, this curriculum will foster physician self-awareness and build skills in such areas as eliciting patient perspectives, building rapport and common ground, involving patients in health decisions, and motivational interviewing for behavior change. In addition to periodic assessment using standardized patients, residents will perform self-assessments, set goals, and build learning plans with our communication experts.

Measures of Effectiveness

It is our intent to create an MP program that will train leaders in a new field of internal medicine–pediatrics, focused on addressing the health care needs of an urban population, and to create a model that can be widely applied elsewhere. To our knowledge, our program's focus on urban health is unique. Other programs have focused on the social contexts of health, but they tend to be in internal medicine, pediatrics, or family medicine, not MP.^{13,14} After completing 4 years of specialized urban MP residency, graduates will have the opportunity to put their knowledge to use by working part time in a clinic dedicated to the care of vulnerable, underserved patients, while simultaneously working on a master's degree in public health, education, psychology, or business administration in health administration. We plan to measure our success by evaluating the changing behaviors and attitudes in our residents, as well as by assessing the program's effectiveness in addressing some of the primary-care access disparities found in East Baltimore. Indicators of successful outcomes will include decreased emergency department usage and admission rates for patients cared for by the program's residents and faculty, and graduates practicing and

contributing to improved health status in urban communities. Another measure of the effectiveness of the program will be the career paths residents choose after completing the program and their impact on the health of their practice community health care systems. We envision that our graduates will continue to work with the underserved, whether in research, clinical settings, public health, health policy, or advocacy careers.

Local and National Benefit

Our program will create primary care leaders who can effectively care for patients, collaborate with other health care professionals, and lead the treatment of patients and families in Baltimore and other urban communities. We anticipate that our graduates will become the future leaders of urban primary care on a local, state, and national level. Ultimately, this model of training, when proven successful, could be implemented and adapted by other institutions in similar settings to address urban primary care needs across a range of cities and other settings.

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