Testimony before the Primary Health and Aging Subcommittee
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Good morning Chairman Sanders, Ranking Member Burr, and Members of the Subcommittee. My name is Joseph Nichols, and I am a Family Medicine resident at the MedStar Franklin Square Family Health Center in Baltimore, Maryland.

I'm grateful for the opportunity to share with you today the perspective of a young primary care physician anticipating a long career of service to the poor and underserved. My testimony today will focus on the pipeline that led me to become a primary care physician, my view from the front lines of primary care training, and some concrete actions that the subcommittee can take right now to grow the primary care workforce this country so desperately needs and deserves.

I was born and raised in Harlingen, Texas, a small community on our nation's southernmost border with Mexico. My family's world was upended when, at the age of three, I was diagnosed with acute lymphoblastic leukemia. While I would not wish a diagnosis of cancer on anyone, in retrospect it led to the best things that have ever happened to me. It kindled a lifelong interest in medicine as a means to help others in need, and it helps me to identify with the suffering of patients and families that I treat. I did fine with my treatment, and I went on to enjoy about as normal a childhood as I suspect I could, growing up in that unique part of the world.

Given my lifelong interest in medicine, when the time came, I applied to the South Texas High School for Health Professions, a public magnet high school which offers students a high quality educational experience focused on pursuing careers in health-related fields. "Med High", as it is affectionately known, results from a novel partnership, since 1984, between Baylor College of Medicine and the South Texas Independent School District. Med High has has been repeatedly ranked among the top 100 high schools in the nation by Newsweek and U.S. News & World Report and has demonstrated consistent success in producing health care professionals. Three other students in my graduating medical school class also shared the stage with me at my high school commencement, including our high school salutatorian. Other members of my graduating high school class went on to become dentists, pharmacists, nurses, public health workers, physician assistants, doctoral level researchers, and a variety of other health and non-health related professionals as well.

Until the end of high school, it was my ambition to return to South Texas as a pediatric oncologist. I looked for every opportunity to follow this dream, and so I applied to the Premedical Honors College, what was at the time an eight-year full tuition and fees scholarship offered by the University of Texas Pan American and Baylor College of Medicine.

A number of changes have affected the scholarship program and its sponsoring institutions since my time there. The Premedical Honors College was founded in 1994 as a Hispanic Center of Excellence, with federal dollars from the Division of Disadvantaged Assistance at HRSA. The Premedical Honors College soon opened it its doors to students from all ethnic backgrounds,

losing federal funding. It was for a time supported by funds from both institutions and by a small group of generous private foundations. However these private donors eventually shifted focus to other worthy endeavors. Meanwhile, the endowments of both institutions were hit very hard in the recession. Despite funding challenges, both sponsoring institutions remain committed to the success of the Premedical Honors College, even as The University of Texas Pan American reorganizes itself as the University of Texas Rio Grande Valley, in order to better serve the educational needs of students from the southernmost region of South Texas, and increasingly, Hispanic students from across the nation.

When I was admitted to medical school as a high school senior, you can imagine how excited I was to tell the pediatric oncologist who inspired my career choice. When I shared with him my hope to follow in his footsteps as a doctor for children with cancer, he expressed great pride for my accomplishments. But to my surprise, he discouraged me from this career path. He explained that he entered the field as a young resident feeling that the abandonment of children with cancer and their families constituted the greatest injustice in medicine of his time. I should state that my doctor not only entered into the field pediatric oncology; he pioneered it. He led the team that produced the first cures for childhood leukemia. By the time I was treated for cancer, his work and the work of many others brought survival rates for several types of childhood cancer above 90%, whereas when he was starting his career, many of these diseases had been a death sentence. More work on childhood cancer remains to be done, but as his career began to wane, he had the satisfaction of seeing other challenges rise to prominence.

This wise physician, whose life's work saved my life, encouraged me not to follow in his footsteps, but instead to go where the need was now greatest, as he had done at the beginning of his career. To him, the need was now greatest for primary care physicians. Moreover, he felt that all the compassion and dedication that had been borne into me as a cancer survivor would make me exceptionally well suited for this equally noble career path.

I took his advice seriously. It occurred to me that primary care is a necessity hiding in plain sight. **Primary care is something needed and deserved by everyone, and yet it has a constituency of no one. Nobody raises her hand and says, "I have primary care disease."** This would be the field where I would leave my mark.

The quality and rigor of the advanced placement program at my health careers-oriented high school allowed me to complete almost an entire year of college coursework as a high school junior and senior. So I was fortunately able to finish my undergraduate degree in only three years. I invested my year before starting medical school in studying epidemiology at the University of Texas School of Public Health, in Houston.

In public health school, I learned how to think about health in terms of populations. I learned, paraphrasing the words of another physician champion of social justice, that people live not only in bodies, but also in families, neighborhoods, communities and populations. The physical and social environments have a profound impact not only on our health, but also on our potential for health, even at the genetic level. Health is largely a product of where and how people live, learn,

work, worship, and play. Those of us working together in the fields of public health medicine cannot therefore meaningfully alter the health or health potential of a person or a group without partnering with people beyond the exam room and the hospital. And the most effective interventions are those which focus not on doing things to people or for people, but rather with people, building on their inherent strengths, and working together to build healthier environments and practice healthier behaviors.

So I was excited after my year at public health school to enter medical school and begin learning how to go about helping people to achieve this thing called health. You can imagine my disappointment when I found that we spent almost our entire time talking about diseases, when clearly health is so much more than merely the absence of disease. Few of my other classmates seemed to notice, or to be bothered by this.

We know that a majority of first year medical students enter medical school considering careers in primary care. Unfortunately we are also aware that far fewer than the majority of medical school graduates will go on to practice primary care. This forces us to consider what we're doing, or not doing, to lose students to other specialties that may not address the pressing workforce needs of our nation. An important part of medical education is what has been termed the "hidden curriculum"-- the inculcation of attitudes and belief systems that are distinct from procedural and intellectual knowledge. This hidden curriculum contains some of the most noble features of our profession, namely compassion, altruism, honesty, and the value of hard work. Unfortunately, the hidden curriculum in many medical schools turns students away from careers in primary care, due to the misperceptions it perpetuates about our specialty, its practitioners and our patients.

You have no doubt heard many other primary care physicians recount stories of attending physicians and classmates discouraging their choice of specialty. In all honesty, I don't recall being harassed for pursuing a career in primary care while at Baylor College of Medicine. In fact, a good number of my classmates confided in me that they wished they could practice primary care as well. These students gave a variety of reasons for following other career paths.

Some of my classmates said that the breadth and depth of knowledge underlying primary care was too vast and difficult to master. Other students said they lacked or could not develop the social skills necessary to manage long term relationships with patients in the context of these patients' families and communities. But in almost every case, my classmates who opted towards subspecialty training and away from primary care did so in part because they worried they could not afford to repay their student loans as a primary care physician.

I'm certain that this point has been made to the subcommittee before. But to show how extraordinary this part of my story is, allow me to tell it another way. **Even at the least expensive private medical school in the country, many medical students abandon plans of becoming primary care doctors because of student loan debt.**

So I applied myself in my clinical years, training in the full variety of different types of hospitals available to BCM students, including a large inner-city public hospital, a freestanding children's hospital, a Catholic hospital, a well-endowed private hospital, and the largest Veterans Administration hospital facility. I received excellent preparation for providing high-quality primary care to socially disadvantaged and medically complex patients at Baylor College of Medicine. However I also understand why medical schools struggle in producing primary care physicians, especially for the poorest and sickest patients where primary care doctors are most desperately needed now.

Most students completing a family medicine clerkship are exposed to dysfunctional and antiquated models of primary care delivery, often in settings where the fewest resources are available, and yet where the sickest patients by necessity seek care. Medical students keenly sense the frustration and helplessness, often thinly veiled, of providers trapped in inefficient and inadequate systems.

My family medicine clerkship was an exception that proved the rule. Through some advanced planning and extra effort, I arranged to spend my month-long family medicine clerkship two hours east of Houston, training in a one hundred-year-old rural practice, run by a third-generation primary care physician who was an immediate past president of the Texas Academy of Family Physicians. This practice cared mostly for sick and elderly rural patients who had no other reliable source of primary care available in the rural Texas Hill Country, and they did so by building a practice perfectly suited to the needs of their patients. Doctors there anticipated the need for an electronic medical record in the mid-1990s, and they were already using their EMR to its full capabilities a full ten years ahead of our more recently determined meaningful use deadlines. These physicians served various key roles in the community, including school board member, trustee of the local bank, director on the board of the local critical access hospital, high school sports team physician, radio talk show host, and local county health officer. Almost all the characteristics of the patient centered medical home that so many practices are trying struggling to embrace even today were already present in this practice, simply because this seemed like the right way to do things, and because the doctors working there had the capability and commitment to make things better, from one day to the next.

My experiences with an innovative, rural Texas family medicine practice stood in stark contrast to those of my colleagues who stayed in Houston, placed in dysfunctional urban family medicine clinics, where patients were more often than not swept downriver further and further each day, despite the most heroic efforts of the providers. **Even though as medical students we trained in nearly every kind of hospital commonly encountered in the healthcare landscape of the United States, our outpatient primary care experiences were, by comparison, an afterthought. We had every opportunity to interact with many subspecialist physicians who were leading their respective fields, but we had almost no opportunities to be mentored by primary care physicians providing cutting edge care.** It was possible for only a small motivated minority of students, like myself, to experience the sort of advanced model of primary care practice in training that is vital for meeting our country's needs.

Many of us in the so-called safety net toil day after day, trying desperately to rescue patients from a rapidly flowing stream of suffering, saving them one by one from drowning. Meanwhile, what our health care system most keenly lacks is the ability to work effectively upstream, addressing the forces like poverty, social isolation, and racism that push Americans into the river of disability and poor health every day.

Somehow I survived medical school. I must take a moment to thank the then Dean of Students at BCM. He is a kind and wonderful man who was and is incredibly supportive of his students, and of me in particular. He went out of his way to encourage each student selecting a career in primary care, confiding in us that he (a Harvard educated surgeon who had graduated with honors from medical school at Baylor) did not feel personally capable of undertaking a career path as challenging as primary care. "You are the real doctors," he told me, summarizing his admiration for primary care. **As wonderful as it was to hear the Dean of Students affirm my career choice, it saddens me that he shared this message with me privately, and at the end of my third year of medical school, after all of my classmates had selected our medical specialties, rather than at the very beginning of our training and over the course of our difficult first few years.**

I decided to pursue my family medicine training in a residency program where I would spend most of my days trying to pull patients out of the river, but with regular opportunities to venture upstream. At the MedStar Franklin Square Family Health Center, we take primary care to our patients. We follow some patients in the nursing home. We sometimes go on house calls for patients that cannot make it into the office to see us, often bringing along reinforcements from our multidisciplinary care management team, including a nurse care coordinator, medical and clinical social workers and a pharmacist, along with medical and pharmacy students from a variety of schools, including Johns Hopkins School of Medicine. In between, my journeys upstream have taken me to our local county health department, the Maryland state health department, the governing body of the American Academy of Family Physicians, the Robert Graham Center, and the United States Capitol, on more than this one occasion.

I met patients like Mr. Simms, whose story I'm sharing with you today with his permission. Mr. Simms is a loving husband and father, who used to support his family working 12 hour shifts five or more days a week as the manager of a chain restaurant serving 24-hour breakfast. An unfortunate combination of eating too much of his restaurant's food, not getting enough exercise outside of working such long hours, and a genetic predisposition resulted in Mr. Simms developing diabetes in the prime of his working years. His disease was advanced by the time it was diagnosed, and he needed insulin therapy from the beginning. His long and irregular schedule, and the lack of a refrigerator at work where he could safely store his insulin, prevented him from giving himself the medications he needed to manage his disease.

He soon lost his job after he developed a serious infection of one of his feet, requiring amputation of several toes. This would be the first of many surgeries and complications to befall Mr. Simms as a result of his diabetes. Unfortunately, with the loss of his job, he also lost his health insurance. I met Mr. Simms almost 20 years after his diagnosis. He was uninsured and

had nearly been bankrupted by his medical bills. And like many Americans, he was nearly underwater on his mortgage. His wife continued working, and she made just enough money to prevent him from being eligible for many of the more common forms of public assistance. Mr. Simms worked out a deal with the bank that enabled him to keep his house; however he was required to maintain very strict limits on his debt, which any further medical bills would upset, resulting in the loss of his home.

Caring for Mr. Simms, and patients like him, I became adept at considering the myriad social and economic forces that affect health in America. On some rare occasions, I can even use these forces to my advantage. For instance, the great majority of medications that I use routinely are found on the $4 list of medications available from big-box store pharmacies. These medicines are tried-and-true, and I take two of them myself every morning. It is tempting to believe that this is an affordable way of providing patients with good quality medical care. **Four dollars for a 30-day supply of medicine suddenly becomes expensive for patients living on a fixed income who need to fill six or more of these prescriptions every month. Meanwhile many essential medications remain absent from these lists.**

My patient, Mr. Simms, is a personal hero of mine. Despite multiple partial amputations of both feet, prolonged hospitalizations and nursing home stays, and the recent loss of an eye to a complication of diabetes, he remains cheerful, and he continues to teach our residents and our care coordination staff about the needs of patients like him. There are already other patients in our practice like Mr. Simms, including his own son. Little Regi, as everyone knows him, already shares many chronic illnesses with his father. Although Little Regi is 25 years younger than Mr. Simms, his disease progression lags behind his father's by only 5 years or so. The moral of this story: **If we do not take swift and decisive action to grow the primary care workforce and to empower it with the tools it needs to address the upstream causes of chronic disease, already strained safety nets may break, failing from the weight caring for multiple generations of medically complex patients simultaneously, for the first time in history**.

More patients surge down the river and become tangled in the net every day. **We must recognize that my patient, his son, and others like them are afflicted primarily by poverty. Although poverty often masquerades as a chronic disease like diabetes, hypertension, addiction, or depression, we must not be distracted by this ruse. We must commit ourselves to moving upstream to prevent others from becoming sick, even as we tend to the sickness that is already upon us.**

So what then must we do?

First we must shorten the path to medical training. BCM and other medical schools have previously successfully experimented with a three-year medical school curriculum, during a time in the past when a shortage of physicians was feared. We have the opportunity to refocus medical education not on learning everything that one needs to know, but rather on learning how to learn. Recognizing that medical school is simply a stepping stone into a lifelong

process of learning, empower each graduate with the tools that she will need to tailor a lifetime of learning and practice to meet the needs of her patients

Next we must make the total cost of medical education more affordable for students committed to careers in primary care. In doing so, we must consider the total cost of training, from undergraduate education through the duration of residency. Programs like the National Health Service Corps Scholarship Programs and Loan Repayment Programs are especially critical, linking students and residents to training in primary care specifically for the disadvantaged and underserved.

Next we must identify students likely to enter careers in primary care early on, as early as high school, and support these students with a long range pipeline approach leading to medical school admission and to eventual primary care careers. Invest in novel and effective educational programs, such as health professions magnet high schools, as key sections of this pipeline. Patch the pipeline along every section with extra support and advisement for students from disadvantaged backgrounds, helping the students that will be most likely to practice and be effective at delivering primary care to disadvantaged patients in the future. This investment will pay great returns in the future. In the meantime, we need to increase primary care production now, so the early experiences of students entering medical school in the next few years present a critical opportunity to retain trainees in the primary care pipeline.

Encourage the development and expansion of advanced primary care training sites in academic medical centers through grants for research and training, especially targeted at the academic primary care practices where most students receive their first exposure to primary care. Create the same opportunity for medical students early in their training to emulate primary care innovators as they have to be impressed by subspecialists. While we must continue to advance all fields of medicine, in the near future we should focus funding for research and training especially on primary care, which has urgent catching up to do.

Support and expand the Teaching Health Center program as a better approach to caring for and training with the medically underserved. The most vulnerable and most disadvantaged patients continue to fall in the river of illness and disability every day. Rather than baptizing students in the river, let's give them a boat. The Teaching Health Center is a boat with a motor. The students and residents that train in Teaching Health Centers will receive the specialized training they need to become the primary care physicians that must, in the coming years, right the inequities that underlie the majority of the excess healthcare costs that we as a nation collectively bear. And while we set about growing the primary care workforce we need and deserve, our sickest patients will benefit from improved medical care in the mean time.

I want to conclude by saying that my education does not belong to me; I did not purchase it or win it. It's rather something with which I have been entrusted. Like all medical students, my education was heavily subsidized by federal and state funds, in addition to the numerous

scholarships which I also received from public and private sources. I feel a profound responsibility to use my education and skills in service to society, and to pass these skills and knowledge on to the next generation of physicians, who will care for myself, my family and my neighbors in the future. **I want nothing more or less than to belong to my community, to dedicate my labors to its health and well-being, and for us to care for one another.**

Even though my story may seem exceptional, I am not. While it requires a lot of hard work to get where I am today, I also had a tremendous amount of help from great number of people and programs. I'm a living example of a well researched finding that individuals coming from socially or educationally disadvantaged backgrounds are more likely to pursue careers in primary care. I'm also confident that without the ongoing support of a number of unique programs stretching back to high school, I would not have been able to achieve admission to medical school, and I would not have been able to pursue this goal. Other students deserve to benefit from the excellent sort of training opportunities that I had, and these sorts of programs show great promise for growing the primary care workforce our country needs and deserves.

And I pray I live to see the day when one of my former patients will share with me her ambition to follow in my footsteps, helping others as I once helped her. I pray that I may have the satisfaction of saying that the problem to which I have dedicated my life has been vastly improved. I pray that she will devote her energies to a different challenge, what is then the most pressing matter of her day.

Thank you, and be well.