the need to attend to similar issues in the United States.

We believe that physicians in training, teaching, and practice would be wise to consider the old adage of "think globally, act locally" when they ponder becoming involved in global health. Given its definition—global health is "the area of study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide"[1]—the application of global medicine (the clinical part of work physicians do to address global health issues) is as necessary within our borders as it is outside them.

The practice of global medicine in the United States involves working with immigrants and refugees, tackling problems of economic poverty and social inequity, dealing with educational marginalization and health illiteracy, and addressing issues of maldistribution and access common in urban and rural areas alike. It much more closely resembles a sustainable practice linking primary care and public health than an episodic subspecialty model of medicine.[2]

Understanding the practice of global medicine in this country is ultimately about reconceptualizing boundaries. Spatially, it means opening our eyes to the needs that exist all around us, outside the periphery of medicine's core professional consciousness. Professionally, it means looking beyond biomedicine and technology toward a practice of social medicine. Educationally, it means putting *underserved* on the same pedestal as *global* and promoting them as equal parts of the same service activity. Personally, it means recognizing that the welfare of one group is connected to the welfare of another, wherever they may be.

As physicians, medical educators, residents, and medical practitioners contemplate involvement in global health, we encourage them to look close to home for opportunities to practice and teach global medicine here in the United States. The underlying principles of global health and global medicine demand no less.

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To the Editor: Along with views toward social responsibility in medicine, global health equity, and addressing health disparities, the interest of U.S. medical students and residents in global health activities has increased. However, many training programs developed to respond to this interest focus on international experiences[1] and overlook valuable domestic opportunities to address and teach global health.

Currently, the non-U.S.-born percentage of the population is 12.5%,[2] with 7% to 11% reporting a history of torture.[3] Also, millions of undocumented immigrants and tens of thousands of refugees arrive annually. However, most practitioners lack sufficient training to address their needs and therefore miss the opportunity not only to serve these underserved populations properly but also to better prepare themselves for the international health setting.

I propose comprehensive domestic global health training for medical students and residents that covers the global burden of disease, immigrant and migrant health, and the health of refugees and survivors of torture and sex trafficking, and addresses core competencies in health disparities, cultural competency, health and human rights, and tropical and travel medicine.

The curriculum should include didactic sessions using real case studies with interactive discussions of the demographics, sociocultural factors, health care barriers, clinical presentations of diseases, and epidemiological and public health issues. Also, there should be clinical exposure that is systematic, ongoing, and with proper supervision and resources, complemented by practical experience working with grassroots organizations to address social determinants of health.

Such a comprehensive curriculum could help trainees gain cultural competency skills by addressing different health perceptions and sociocultural barriers, and by teaching clinical skills to diagnose and address unfamiliar diseases and travel health issues. The curriculum would (1) help trainees recognize the broader sociocultural and political factors that cross the boundaries of countries and affect the health of populations, (2) foster trainees' understanding of the relevant public health and epidemiological issues, and (3) help trainees develop skills in collaborating with community organizations to improve access to health care. Such teaching would also provide them opportunities not only to address health disparities domestically when they are unable to travel internationally but also to better serve other vulnerable populations in this country.

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In Reply to Ventres and Page and to Asgary: Drs. Ventres and Page express concern that global health education diverts attention from domestic health issues. While we fully agree that significant global health issues exist among underserved domestic populations, we feel that teaching global

health education complements, rather than competes with, domestic health training. As stated in 1969 in the Journal of the American Medical Association,[1]

> If, as a routine, young American doctors were encouraged to spend some months working in a developing country … the result could only be better medicine at home and abroad.

Global health education allows trainees to identify health disparities, and international experiences provide practical exposure that cultivates interest in addressing these issues and an opportunity to understand innovative low-resource approaches to medical care and health promotion. Many trainees who engage in international rotations return passionately invigorated about domestic health inequalities and want to serve their communities. Furthermore, exposure to international medical care can lay the foundation for reverse innovation—the importation of approaches, technologies, and systems from the "developing" to the "developed" world.[2] As health equity, cost-effectiveness, and public health promotion take priority in the United States, reverse innovation for health may become an increasingly relevant output of global health exposure.

We agree with Dr. Asgary's suggestion for comprehensive domestic global health training for medical trainees, but we favor different approaches for medical students and residents. Medical students can participate in classroom time and community-based practical experiences, while residents are suited for specialty-specific training and advanced preparation for advocacy, partnership, and interdisciplinary collaboration. We have previously suggested structured global health education during undergraduate and graduate medical education,[3] and we are publishing a guidebook for developing global health programming.[4]

Others have called for the development of global health education standards and core competencies,[5] and we agree that developing formal guidelines for global health education would be beneficial. Implementing core competencies, as Dr. Asgary suggests, would give educators more direction for curricula, ensuring that all medical trainees receive a minimal exposure to global health issues. Ultimately, this exposure will lead to better medicine, public health, and advocacy—both abroad and at home.

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Specialized Residency Programs May Help Stem the Tide of Physician Burnout

To the Editor: We read the report by Lipner et al[1] with great interest. The report is significant in highlighting that, at least for exceptional physicians, an alternative specialized approach to residency training that follows a short-track research pathway and reduces clinical training to two years is possible without sacrificing patient care or clinical judgment.

We maintain that for some physicians, a "short-track" specialized pathway could streamline graduate education, give earlier exposure of areas of interest to trainees, and lessen concerns regarding length of training. More important, we feel that specialized pathways in graduate medical education have the potential to stem the increasing tide of physician burnout.[2] Indeed, a recent study found that as many as one in two physicians have symptoms of burnout.[2]

While calls have been made for policy makers and health care organizations to make changes addressing burnout, the role of graduate medical education remains largely unexplored; more research is needed. Even so, it seems clear that since physicians who spend more time in their most meaningful area (i.e., clinical care, education, or research) have been shown to experience significantly less burnout,[3] early specialization makes particular sense. Alternative pathways in those three areas could not only give trainees a head start in focusing on the specific areas of medicine they are most passionate about but also increase the likelihood for them to maintain a successful career in their chosen area.

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In reply to Shah et al: We agree it would be desirable if educators could find a way for residents to focus on their unique interests in training while also mastering the competencies essential for independent practice. Our study demonstrated that internal medicine research pathway candidates, typically