I think it safe to say that just about everyone connected to resident recruitment has been amazed by the number of medical students who have had experience with or have expressed interest in work in low-income countries. Indeed, a growing number of our surgical residents envision themselves becoming involved in the nascent branch of global health, now increasingly referred to as global surgery.\(^1,2\)

Given the growth of attention and the fact that many of these trainees are among our brightest and most motivated, global surgery can no longer be ignored as a boutique interest.

Many practicing surgeons engaged in volunteer medical mission work have mentored and encouraged surgical trainees interested in global surgery, but the collective response by academic surgeons to global surgery has been mixed. Although some have been very supportive, the more typical response has been simply to ignore the trainees' interest or to dismiss it as adventurism (which, granted, it sometimes is). This inattention would be understandable if the peak of the trainees' ambitions were to have an experience with surgical care in an interesting foreign country. However, we are now seeing a growing cadre of trainees for whom this is not the extent of their ambition—trainees who want to build academic careers in global surgery research. The tendency of academic surgeons to ignore global surgery adds insult to injury. Global surgery already suffers plenty of disregard from the global health community. Paul Farmer once famously described global surgery as “the neglected stepchild of global health,”\(^3\) but in some respects, global surgery is also the neglected stepchild of academic surgery.

The distinguishing characteristic of academic surgery is the addition of surgical education and research to the delivery of clinical care. The importance of academic surgery's engagement in global surgery education was recently described in this journal by Dr Haile Debas, a widely respected and eloquent spokesman for surgery in the field of global health.\(^4\) I concur with his views of surgical education and will herein focus my comments on the role of academic surgery in global surgery research specifically.

Regrettably, the growth and development of research in global surgery has been considerably stunted by a lack of engagement by academic surgeons. Too much of the global-surgery research that I see residents producing suffers from a lack of scientific guidance and academic mentorship. Although many of their projects are admirably ambitious and innovative, they are often only marginally investigative and would not stand up to the rigorous standards to which we hold our residents engaged in domestic research. Many of the projects that our trainees undertake in the global sphere might garner the support of philanthropists, industry, and nongovernmental organizations, but few would receive a score from funding agencies, where decisions are based on scientific review. As academic surgeons, we are largely to blame for this situation. It is time to consider seriously how we engage our trainees who propose research related to global surgery.

As academic surgeons, we should be just as encouraging of surgical research in the global sphere as we are in the domestic sphere but also just as demanding in terms of scientific standards. We should ask hard questions. Is the hypothesis clear and testable? Is the study design sound? What are the exposures? What are the primary and secondary outcomes, and how will you measure
them? Have statistical power and sample size been addressed? What are the potential sources of confounding, and how will they be managed? We should also help our trainees navigate other important research matters, such as informed consent, human subjects’ protection, resource management, and budgeting. Academic surgeons should not consider themselves unqualified to provide mentorship to a trainee pursuing a global-surgery research project simply for lack of having worked or traveled abroad. On the contrary, the high standards and sophistication of surgical research so carefully crafted in the domestic sphere are among the greatest needs of surgical research in the global sphere. Granted, it’s hard work because conditions in low-resource settings are challenging, but to deprive poor populations the benefits of truly scientific inquiry only compounds their problems.

The engagement of established academic surgeons would also boost the range and depth of surgical research in global settings. Most of what is now being reported from low-income countries is descriptive, with a focus on needs assessment, burden of disease, and surgical capacity. This is truly important work, but it does not represent the breadth of health services research that we employ domestically.

The area of health services research that is most glaringly underrepresented in global settings is the study of value—specifically, quality and cost. In the United States, our preoccupation with value is driven by a monumental challenge that is ubiquitous in low-income countries: the desperate need to deliver more care with fewer resources. Ironically, in the United States our research agenda approaches this problem by addressing quality, cost, and efficiency, whereas in low-income countries our research agendas are too often limited to pointing out the obvious lack of resources. (Again, descriptive studies of resource limitations and unmet surgical need are good work that should be done, but the impact of such studies is typically limited to advocacy before ministries of health and aid organizations that are already hogtied by economic realities.) The full armamentarium of health services research that we employ in the United States— including outcomes assessment, process improvement, appropriateness, operating room efficiency, safety, system design, resource management, incentives, and leadership structures—aims to create systems of surgical care delivery that wring the greatest possible health benefits out of every resource available. The imperative to improve quality and value is even greater in low-income countries with severely constrained resources. Local knowledge, persistence, and a willingness to rough it will help our trainees survive in global settings, but it is health services research skills that will make them successful investigators with the potential to effect real change.

Some have argued for establishing an academic surgical subspecialty in global surgery.5,6 Although there are practical concerns that this would address, creating such a distinction could further isolate global surgery from the larger academic community, to the disadvantage of trainees. Fortunately, a few academic global surgery fellowships have emerged that offer broad exposure to the science of surgical care delivery, thereby planting these trainees more squarely in the pipeline of academic success.7 I believe that the efforts of the next generation of global surgery academics to improve access, capacity, quality, and value in low-income countries will be much more successful if they are effectively challenged, guided, and mentored within the greater academic surgical community.

REFERENCES