10. The Accreditation Council for Graduate Medical Education Surgical Residency Review Committee, in cooperation with the American Board of Surgery, released guidelines in April 2011 for approved general surgery rotations.

The major medical—and specifically surgical—challenge in sub-Saharan Africa is the inadequate workforce. With 25% of the global burden of disease, this region has only 2–3% of the global medical workforce to address this burden. In my opinion, the 5 great “surgical” challenges are as follows:

1. Safe airway and anesthesia management
2. Trauma (ie, trauma, trauma, trauma): Prevention, long bone fractures, osteomyelitis, spine and head trauma, and burns
3. Antenatal and perinatal care; women’s health issues
4. Cancer
5. Analgesia—Perioperative pain management; palliative care

These are areas that we as academic or community surgeons can address intentionally.

Individual surgeons have several choices about how they might engage a vocation or avocation in global health:

1. Live there: Government versus a nongovernmental organization
2. Visit there annually: Many places versus 1 place regularly
3. “Hold the ropes”: Be an informed activist

4. Be part of or support an organization’s effort at education, skills transfer, etc (eg, AAS, SAGES, or PAACS)

For low and middle countries, the local surgeons and physicians should dictate, direct, and deliver the care for their people; therefore, their priorities are paramount. We have an opportunity to help, advise, and support their efforts and perhaps enable improvements in the timely delivery of basic care. Although we cannot “fix” their problems, we do have the opportunity to partner with our colleagues as we seek to address disparities and improve access and care broadly and globally. We must, however, focus on sustainability.

Dr Calland has highlighted the current climate, the threats to academic development, disincentives to academic and clinical departments, and disincentives to the individual surgeon, including educational indebtedness, but also the rewarding opportunities. Noting that “all politics is local,” there will likely be individual decisions, arrangements, and compromises for the short term. Most specialties in the now “Balkanized” discipline of general surgery started out as “interest” foci. The academic track for global surgery seems to be on that same path. We can ask with Dr Nwariaku “Where to go from here?” The encouraging factors are that this quest is important; there is a very definite sense of perceived need, exceptional colleagues are already on the journey, and probably MOST IMPORTANT OF ALL—our younger generation WANTS to participate.

Commentary: Academic Surgery and Global Health

Haile T. Debas, MD, FACS, San Francisco, CA

From the Maurice Galante Distinguished Professor of Surgery Emeritus and Director of the University of California Global Health Institute, San Francisco, CA

It is timely and most appropriate that we discuss how and why academic surgery should engage in Global Health. We are indebted to the authors for raising this agenda for discourse.

Many universities, both private and public, appear to have developed a strategy to have a substantial and meaningful global reach in the 21st century. Within their programs of global health, surgery is the least represented discipline. As the authors state, a similar situation exists when one looks at the role of surgery in a global public health strategy in general. I will focus my remarks on why and how Academic Surgery should engage...
in Global Health from the perspective of surgical education and training.

I see a nexus among 3 historic realities—a nexus that provides a unique opportunity to create a win–win outcome.

The first reality is the unprecedented, pervasive, and passionate interest of medical students, residents, and young faculty in Global Health, a phenomenon alluded to by the authors and obvious to most General Surgery program directors. This interest is deep, genuine, and abiding, and it is clear to me, that our students and trainees understand the barriers and complexities of engaging in Global Health better than do most of us. Therefore, the critical importance of involving students, residents, and young faculty in any planning on how this engagement should occur. The passion and energy of the young will provide the necessary momentum to any coordinated program that Academic Surgery may wish to initiate.

The second reality is that the clinical experience of surgery residents has continued to diminish as hospital stays keep decreasing, as surgical care moves more to the outpatient setting, and as the nature of surgical procedures themselves have changed with the advent of minimally invasive procedures. As a result, surgery residents see fewer in-patients, have less experience with pre- and postoperative management, and perform fewer “open” procedures. Adequate experience in “open” surgery will always be needed, even in such conditions as biliary tract disease, which is performed increasingly by minimal access techniques. The potential for American residents to have a rewarding surgical experience in low and middle income countries (LMICs) is huge. Careful planning, sensitivity, and developing a trusting partnership with LMIC academic institutions are absolutely required to take advantage of this opportunity. This partnership can have a win–win success both for our surgery residents’ education but also for the institution hosting the residents. The willingness of the American Board of Surgery to accredit overseas electives albeit under the current prescribed conditions has given impetus for surgery programs to consider this training avenue to augment the clinical experience of their residents.

The third reality is the deplorable condition of universities in low-resource countries. Over the last 2 decades, many universities in sub-Saharan Africa have been decimated by the neglect of and lack of investment in higher education by their countries. To quote the New York Times, “Africa’s best universities, the grand institutions that educated a revolutionary generation of nation builders and statesmen, doctors and engineers, writers and intellectuals, are collapsing” (New York Times Sunday, May 20, 2007). Medical schools have to cope not only with crumbling infrastructure but also with severe shortage of teachers at a time when their governments are requiring them to double—or, in some cases, quadruple—student admissions. The wards and operating rooms are ill-equipped, and teaching in the clinics and wards is often inadequate despite the size and richness of patient mix. There is much that American Academic Surgery can do to improve dramatically this situation if it genuinely dedicates itself to help these institutions build and improve the quality of their academic and clinical programs.

The intersection of these 3 realities creates a perfect opportunity to plan strategies which, at the same time, quench the thirst of our trainees to give back, provide our residents unsurpassed opportunities to augment their clinical skills, and most importantly for American universities, with all their resources and unparalleled expertise, help improve vastly the quality of surgical education and care in resource-poor countries.

So, what strategies are required to achieve these laudable goals?

Although ad hoc efforts by individual universities has a place, major success will require a coordinated effort by Academic Surgery to convince donors (private or public) of the serious commitment by Academic Surgery to improve the quality of training of not only its own students and residents but also that of on-site trainees in the medical schools in low-resource countries. This effort will require strategic planning and is likely to be best achieved if global surgery programs in departments of surgery in the United States develop a consortium to plan and execute an initiative to develop long-term, educational partnerships between the United States and LMIC institutions. In my opinion, for such an ambitious endeavor to succeed, there has to be an organizing body, such as the American Surgical Association (ASA), Society of University Surgery (SUS), or the American College of Surgeons (ACS), preferably in collaboration with such entities as the Association of American Medical Colleges (AAMC), the National Institutes of Health Fogarty Center, and the Sub-Saharan Medical Schools Study (SAMSS) funded by the Bill and Melinda Gates Foundation.

The importance of Surgery in Global Health is increasing, and a unique opportunity for global surgery has now presented itself because of the
confluence of many related circumstances. My hope is that we will take advantage of this unique opportunity to benefit the clinical training of our surgery residents and to contribute to capacity building in surgical education and care in developing countries.

Commentary: Charity begins at home

William P. Schecter, MD, San Francisco, CA

From the Department of Surgery, University of California, San Francisco General Hospital, San Francisco, CA

The plight of the one billion impoverished souls in the developing world is unimaginable, but the poor health of the 46.2 million Americans living in penury is a national disgrace and unacceptable. Lifestyle decisions have obvious health consequences, but poverty in and of itself affects health adversely irrespective of discretionary health-related behavior.

Low-income Americans are sicker and use 2 to 4 times the health care resources compared with affluent patients (Cooper RA. Health, Poverty and Healthcare Spending. Geographic differences in health status and health care spending reflect geographic differences in wealth and poverty. Personal communication, August 23, 2010). Even residence in an economically depressed neighborhood is associated with poor health after other variables are controlled, including income. The adverse health effects span the spectrum of human disease, including cardiovascular, pulmonary, metabolic, and malignant disorders. Poor people also have an increased risk of both intentional and nonintentional injury. The epidemic incidence of gunshot wounds among poor urban minority youth is especially disturbing.

An increasing number of impoverished Americans seek care in resource-constrained urban safety net hospitals stressed already to the limit. Access to care for the rural poor is even worse. In 2006, 925 (30%) of the 3,107 counties in the United States lacked a single surgeon, and nearly 9.5 million Americans lived in those counties. Lack of access to operative care has a direct association with the greater rates of mortality after trauma in these “surgical deserts.”

Community health centers are an important component of the safety net but are usually limited to primary care. Low-income, uninsured patients who require operative care usually rely on ad hoc, pro bono services by a community surgeon or seek treatment in an emergency room. Surgical volunteer networks in the San Francisco Bay Area, Orange County, and North Carolina have made an organized response to this challenge. Operation Giving Back, a program of the American College of Surgeons, serves as a clearing house for both efforts by global and local volunteers. Although thousands of patients have been helped by these efforts, the overall health of our nation has not changed.

The major determinant of life expectancy above a minimum level of household income is equity of income distribution. The greater the inequality of income distribution, the greater the rate of mortality. This is true when one compares life expectancies among different countries and among the different states of the Union. Unless the increasing inequity in income distribution is addressed through investment in education and social infrastructure, the health of our nation will continue to compare unfavorably with other industrialized countries.

The current focus on global health is a positive development, but much work is also required at home. One thing is clear—despite the emphasis on “the broken health care system,” the overall health of our nation, like the health of the world, is a question of political economy, not medicine. Good policy is based on accurate information derived from research. Academic surgery, in collaboration with the American College of Surgeons, should also vigorously engage “the Surgery of Poverty” right here at home in the United States; this may be the most pressing domestic health issue of our time.