Perspectives

Potential Role for Institutional Review Boards in Curbing Medical Voluntourism in Global Health at American Academic Centers

Timothy S. Laux, MD

Global Health Fellow at the HEAL Initiative, University of California San Francisco, San Francisco, CA, USA Jan Swasthya Sahyog (People's Health Support Group), Ganiyari, Bilaspur District, Chhattisgarh, India Currently enrolled in Masters of Public Health (MPH) coursework online through Berkeley School of Public Health, Berkeley, CA, USA

Across disciplines, consensus exists that medical voluntourism (as practiced by US-based health care professionals and professionals-in-training) is of questionable benefit to overseas health care practitioners and systems. This concern stands in sharp distinction to the increasing quantity of US-based global health activities, widely deemed "voluntouristic." This laxity in standards runs counter to the high level of self-policing otherwise seen in medicine. Various degree programs and certificates have been either created or proposed with the aim of identifying those passionate about long-term global health work but these programs have ultimately failed to reduce the incidence of global health voluntourism. To address the persistent concern of voluntourism, Institutional Review Boards (IRBs) might perform the role of adjudicating the appropriateness of proposed global health work for US-based academic health care professionals. This role would ultimately not be punitive, but instead it would serve to support committed practitioners while critiquing those in need of additional oversight. Such a system would add work to an already overburdened IRB system and would require new forms of expertise from IRBs. Despite these anticipated challenges, there is a need for formal, institutionalized review of all global engagement at the level of the individual. IRBs could perform such a role in ethically consistent but flexible ways.

An Oft Repeated Conflation

I recently watched a TEDx talk given by my global health mentor, Dr. Sriram Shamasunder of the University of California, San Francisco. He spoke of his years of work as a doctor in global health settings, both within and outside the United States. The talk was a multi-disciplinary discussion about why the medical and non-medical suffering of some "matters" while the suffering of others is ignored or forgotten. In years of in-country, long-term global health work, he explored the realities of clinical suffering in global health settings, showed acumen in medical anthropology and linguistics and referenced historical systems like colonization and their modern manifestations. This multidisciplinary approach allowed him to discuss how access to creating and maintaining a historical narrative can be intimately tied to health outcomes and human rights. This was not a talk that could have been given solely based on long distance interactions or knowledge of the academic literature. This talk could only be given by someone with years of work experience overseas, by someone who is one of the pioneers of making global health a viable career option for passionate U.S. based health care professionals and by someone who has founded a global health fellowship that recruits equally from applicants hailing from high and low resource settings. In short, it demonstrated years of daily commitment to global health. Like many people passionate about global health, I want to carry a similar level of commitment throughout my career.

After the TEDx talk, it was a common response for listeners to compare their two week volunteer vacation overseas to my mentor's experiences. This conflating of someone's days of annual commitment with true multi-disciplinary, justice-based praxis is not uncommon. This piece will refer to the sum of that lack of preparation, language skill, expertise and longitudinal planning rooted in privilege seen in such "voluntourist vacations" and similar activities as "medical voluntourism." In this essay, I will argue that it is important for

overseas health practitioners and health care systems, global health as a discipline and US-based global health practitioners serious in their work as professionals to distinguish the global health voluntourist from serious global health practitioners like my mentor. The existing Institutional Review Board (IRB) structure is uniquely suited to perform the role of delineating these individuals for US academic center based global health professionals.

The Pervasiveness of US Global Health Opportunities: A Sign of Strength or a Symptom of Sickness?

Throughout this paper, voluntourism describes an activity for someone coming from a more privileged setting that is ostensibly helpful but ultimately beneficial largely and only for the privileged individual. Medical voluntourism will be used to describe medical work where local health care professionals and health systems do not benefit after the individual has left and where there is neither meaningful longitudinal, collaborative relationship nor quantifiable output like publications, posters, quality improvement activities or treatment protocols. While the term "medical voluntourism" will generally be applied to physician examples throughout this piece it can apply to all healthcare professionals.

The literature of disciplines like medicine, sociology and anthropology accepts as a well-established tenet that medical voluntourism is a worrisome trend. ²⁻¹⁹ At best, medical voluntourism is edifying for the US-based practitioner while minimally beneficial to the local residents and the local health care system and its professionals; ^{2-5,8,17-21} at worst, it is actively harmful. ^{2-4,6,8-10,12,16} Medical voluntourism has been implicated in creating redundant or inappropriate care while diverting patients from the established, local public health care system and weakening the very same by siphoning off critical local health care workforce. ^{2,6-10,12,16} Medical voluntourism

sometimes addresses both acute medical issues without sufficient support for possible emergencies and chronic medical issues without chronic care infrastructure in place.^{2,5,7,8,11,16,17} In doing such work, medical voluntourism often serves to further entrench inequalities it supposedly hopes to address^{8-10,12} leading to phenomenon like "internal brain drain".^{8-10, 12, 22, 23}

If these observations are true, it behooves us to stop medical voluntourism. In a review of the literature, there is a shocking lack of meaningful long term follow-up regarding the effectiveness of medical voluntourism, perhaps because such work is not conceived of in the arena of the long term. Concerns about medical voluntourism are seeping into the mainstream media, alternative media and even blogs. ^{7, 8, 24, 25} When asked, Malawian and Guatemalan medical professionals noted some positive aspects to the presence of foreign health professionals—generally related to approachable personality types or addressing of educational shortcomings created by the nature of work as Guatemalan or Malawian health care professionals—but raised major cross-cultural concerns relating to patients and adapting to care settings and ultimately wondered if many physicians possessed self-serving motivations. ^{18, 20} This piece will not further recapitulate arguments on why medical voluntourism is problematic but will propose a possible system to check medical voluntourist activities. It will not discuss medical voluntourism outside of the health professions or prior to enrolment in medical school but will instead target global health practitioners.

Interest in global health continues to grow even as concerns about medical voluntourism mount in the literature. 17, 21, 26-28 As of 2008, approximately half of US medical schools advertised global health opportunities on their websites. 17 A passing interest in global health without further career intentions suffices to open opportunities for Americans. 29 This reality is problematic for two reasons: 1) those with a passing interest are most likely to be shunted towards medically voluntouristic activities and 2) the low bar of a passing interest demonstrates a laxity in standards that runs counter to specialization in the American medical education system. First, it will generally be easiest to place those with a passing interest into voluntouristic activities simply because of their nature as short-term commitments with minimal preparation or need for expertise. We have already discussed the multiple, cross-disciplinary concerns with voluntourism. Second, this laxity in standards is perplexing. Let us assume global health work is its own form of medical specialization.

As with any other form of medical specialization in the US, a passing interest would rarely suffice to create opportunities. One must first demonstrate a serious commitment involving further education, skill acquisition, research interest and professional networking to cardiology or oncology. Only then do further opportunities blossom. Yet, someone with only passing interest in global health can find him/herself at the very front lines of global health work without making any such commitment. Global health too often is a field with minimal oversight compared to other medical specialties. This lack of oversight allows not only a host of inappropriate and misguided activities to happen but also to occur under the auspices of doing good.

How do we begin to address these worrisome trends and lax standards in medical voluntourism in global health? Can a unifying degree program bind global health together? This act itself is difficult because the term "global health" is nebulous, often meaning different things to different people or in different settings.30,31 Like public health, global health is both its own area of expertise requiring specific, additional training and a general field able to cut across all medical specialties, though, unlike public health, it has not developed into a unique discipline but instead functions as a subdiscipline of many other disciplines in health care. Perhaps, like public health, an officially recognized degree program(s) is needed to allow for easier delineation of those with and without expertise and to serve as a pathway forward for serious, future global health professionals while dissuading voluntourists. The Diploma in Tropical Medicine and Hygiene (DTM&H) is one example with graduates doing key global health work all over the world. DTM&H programs generally are short, intensive classroom and clinical based courses with a focus on tropical medicine.32 Nonetheless, in reviewing two online DTM&H programs' curricula (the Mahidol course in Thailand and the Gorgas course in Peru), 32,33 these programs focus on infectious diseases. In the case of the Gorgas course, since inception, one in five students has been an infectious disease doctor with infectious disease representing the subspecialty with the highest enrollment numbers.³⁴ This fact limits generalizability as the burden of noncommunicable disease steadily grows worldwide. Similarly, recent innovations like Wilderness Médicine or Disaster Preparedness are important steps forward in terms of specific training modalities. In the case of Disaster Preparedness training in the US, it is largely housed in Emergency Medicine, 35,36 and like the DTM&H to infectious disease, is most

applicable to practitioners trained in the Emergency Department. It will be difficult to create a unifying Masters of Public Health or Masters of Population Health equivalent for global health. The field sprung up too quickly and too diffusely,³⁷ and is too far reaching to allow for such a solution.

Others suggest health board certification or competencies to organize and provide oversight to global health.38,39 This idea is hard both philosophically and logistically.⁴⁰ As mentioned above, global health professionals have enough difficulty defining health;" one could imagine years of infighting about what does and does not belong as part of a certificate program or on an exam. In a field that is sometimes mired by partisanship and an almost colonialistic approach to divvying up spheres of foreign influence,⁴¹ questions loom large about which present or future governing body or institution will administer said certificate or

"The literature of disciplines like medicine, sociology and anthropology accepts as a well-established tenet that medical voluntourism is a worrisome trend. At best, medical voluntourism is edifying for the US-based practitioner while minimally beneficial to the local residents and the local health care system and its professionals; at worst, it is actively harmful."

test and how it will do so.

It appears previous degree programs do an excellent job of identifying committed global health professionals but are perhaps less successful at dissuading voluntourism. The critical task of dissuading the misguided but well-intentioned is an important step forward for our field and will require an oversight that cannot be rooted at the level of a governing body or unifying degree. As global health has taken on so many real and valuable manifestations at so many different US academic institutions, ¹⁹ such oversight must occur at the institutional level under a unifying set of guiding principles.

The Imperfect Case for IRBs

For US-based academic centers, the institution itself seems an appropriate location to place the locus of control for medical voluntourism. Larger oversight than this level would require the creation of a whole new bureaucracy, while smaller than this would be the current standard of policing this serious issue at the level of the individual. Most medical institutions already possess a diverse ethical body which meets regularly to determine the appropriateness of activities with clear ethical implications. This body is usually called the Institutional Review Board (IRB). IRBs can provide voluntourism oversight in a manner reminiscent to how research is vetted in the same setting.

IRBs already traffic in ethics, but only as ethics relates to research. Their development is intimately linked to the history of highly unethical research that was done not only by cruel regimes but also by well-intentioned scientists with tunnel vision for research quality who subsequently hurt human study participants. 42-45 While global health voluntourism is not as obvious harmful; as noted previously, its utility is very much in question. Global health professionals are reaching a crossroads similar to researchers faced after learning of chronic, untreated syphilis in the African American community during the Tuskegee Experiment. What must be done to build an oversight system that allows global health professionals to complete their work with independent verification of ethical conduct? As they do for research ethics, perhaps IRBs can help address the issue at the looming ethical crossroads before us: what can be done to stop global health work that is not properly planned by individuals without cultural or linguistic competency and no long-term plan to collaborate with existing health systems longitudinally?

IRBs are usually well connected to the medical campus research infrastructure and are already conscious of research work overseas. The international projects of which the IRB would be aware are often the strongest, best established and longest running international collaborations at an institution and, in many cases, are the only international projects whose worthiness had to be adjudicated by outside authorities, including international partners and funding mechanisms. This means IRBs not only have a sense for what is happening in the field but also what is possible given the institution's resources and expertise. In this way, IRBs could help coordinate global health professionals with overlapping work focuses, whether geographic or topical. Stories of global health colleagues happening upon another colleague from their same, US-based institution while working at their international site are not uncommon. While there is nothing intrinsically wrong with this event, it is a bit embarrassing and highlights the occasional isolation and lack of communication even among like-minded and similarly focused individuals. While the IRB likely cannot play a coordinating role, the IRB's existing knowledge base could at a minimum make these individuals aware of each other even if just through something like an online register whereby the IRB application itself prompts you concerning other work in your field or geographic region of interest and provides contact information.

IRBs also have the ability to apply unifying ethical principles on a case-by-case basis, as they already do in research work. This fact allows IRBs some limited flexibility. As more IRBs address the appropriateness of proposed/ongoing global health work, we would see the development of a *de facto* standard which all overseas work must clear to receive any IRB's blessing. Despite this *de facto* standard, the limited flexibility will be critically important for one specific group of global health professionals: those individuals looking to get established in the field.

Imagine two fourth-year medical students who want to go to

Guatemala for four weeks. The IRB can differentiate between one student who has Spanish or indigenous language(s) fluency and who has made inroads establishing relationships with Guatemalan health professionals and another student who has not. The latter student would not be allowed to do a visiting rotation at another US-based medical center with this level of preparation and similarly would not be allowed to go to Guatemala. Similarly, we can imagine two final-year fellows nearing completion of specialization training who express a desire to go Malawi. One fellow has a track record of high quality projects and publications in another region of the world that are now completed, and expresses a desire to find a new overseas institutional home with which to collaborate long term. The other fellow has been to many overseas sites but has minimal evidence of substantive previous work. The first fellow has an established track record and should be given the opportunity to begin new work. The second fellow should be made aware of a pattern of voluntouristic behavior and should be held to a stringent standard prior to clearance for his/her work. The IRB would never be able to figure out who really wants to go on a sightseeing vacation and who wants to simply build their resume, but it could maintain the above standards.

It would be necessary to maintain a lower standard for new global health professionals, whereby it is easier for them to get clearance for their first work abroad. Not all these individuals will decide to pursue careers in global health. This lower standard would mean that a portion of global health work would not lead to productive long term collaborations, though the work that would be done would be more carefully thought out an appropriately vetted. This is a compromise that must be made so individuals can be allowed the opportunity to experience the field and make an informed career decision. However, one can imagine the standard becoming more stringent as one adjudicates more experienced global health professionals as in our examples above. In all of the above, the IRB could serve as a space for reflection about one's mission and its focus.

Global health is already a diverse, multidisciplinary field requiring competency in not only medicine but also social sciences, anthropology, history and linguistics. IRBs are already one of the few places on a medical campus where individuals with non-medical backgrounds play a pivotal role; in fact, IRBs cannot work without those individuals. As global health is contingent on the input of a multi-disciplinary team, IRBs are uniquely situated to be of service to global health.

What Would this Role for IRBs Practically Look Like?s.

Ultimately, the IRBs would play a similar role to the role they currently play in research. However, while traditionally the IRBs research work is a critique of a certain project, in this role the critique would be of the individual or small team. Even though this individual-level evaluation could be punitive, its ultimate goal would be to affirm people who do high quality global health work and help to thoughtfully critique individuals whose planning and collaboration needs work in an iterative process. The goal is not only to stop voluntourists but grant well-meaning individuals in danger of falling into voluntourism the best opportunity to avoid these pitfalls. Committed but inexperienced individuals willing to work with the IRB's critiques could be plugged into established mentorship and collaborations at an institution, where their energies can be redirected in more positive directions.

The logistics of the process would likely follow a similar pattern. Each individual or small group would likely need to submit an up-to-date CV and short statement of intent to the IRB. This would serve as an initial screen and lend itself to a formal, face-to-face interview. The interview would be a critical portion of adjudicating the individual or small group. Each individual would likely be interviewed in a two-part fashion. During the first section, he or she would be asked at some length about previous experience overseas through the use of his or her CV or passport. This section would serve to establish each individual's level and pattern of previous global health work to best determine how most fairly to assess his or her application. This section would also most likely serve as the screen for concerns related to previous voluntouristic behaviors. Multiple short trips without longitudinal work and a lack of quantitative output would serve as red flags to the IRB. In the second portion, the individual's proposed

"It appears previous degree programs do an excellent job of identifying committed global health professionals but are perhaps less successful at dissuading voluntourism. The critical task of dissuading the misguided but well-intentioned is an important step forward for our field and will require an oversight that cannot be rooted at the level of a governing body or unifying degree."

current activity would be scrutinized with the lens and necessary intensity established by the first part of the interview. Language fluency or competence could also be assessed at this time. To this end, each IRB would make use of certain general principles that could be broadly applied to each individual. Follow-up interviews could be performed in an as needed fashion as part of an iterative process. As noted earlier, there would be no "one size fits all" approach but rather a more generous inclusion of individuals new to global health work with more stringent criteria for those with previous experience, especially voluntouristic experience. The following criteria could serve as a baseline which each IRB could use to create its own rubric regarding individuals and small groups:

As simplistic as this sounds, each individual must possess a carefully considered plan of action. This plan cannot be limited to "seeing patients." Each individual must demonstrate a needed and novel contribution. This contribution can be the possession of a skill that is not currently present in the global health setting with intent to teach that skill over time or the willingness to undertake a project for which there are not sufficient local personnel currently.

Global health work occurs in teams. Each individual must demonstrate the existence of the team in which s/he will work. This team will likely include both overseas healthcare systems and their professionals and other US-based global health professionals. Where appropriate, these teams should maintain a "two-way" system of benefit wherein not only the US-based global health professionals but also the overseas professionals stand to gain from the collaboration, ideally equally. By identifying a team, US-based health professionals will be plugged into existing healthcare infrastructure and hopefully avoid redundant care. Some have proposed that ethical review must occur at the level of the local community,⁴ and this qualification attempts to address that critical critique.

Language Fluency/Ability to Communicate

The visiting US-based health care professional cannot be so linguistically limited as to be completely dependent on others. Language competency or the use of compensated translators should be the stated aims, knowing that overseas settings can often be so busy that the extra time good translation requires makes language competency the first among equals. Some hospital systems already make use of testing to establish if health care personnel have enough competency in a language to use it to communicate with patients and their families. This same testing system could be applied to the IRB process and perhaps run concurrently with the face-to-face

interview.

Cultural Competence/Historical Background

This is perhaps the characteristic which is most difficult to readily measure, but each individual should have a sense for the social norms, history, geography, political realities and quirks of a place.

Funding

Individuals should be able to demonstrate access to funding for all proposed work in global health settings.

Track Record

As noted previously, each individual should be graded against a level of commitment appropriate for their level of training and previous global health work. Individuals with lengthy histories of collaborative publications and systems improvement can be given more flexibility in proposed work, while those with a history of one-off trips should be closely scrutinized. *Redundancy*

The IRB can serve as a check of two or more individuals about to undertake redundant work or serve to connect those where

collaborations seem possible.

In a review of the requirements for visiting international students posted on various US medical school websites, most require a clear plan, documented language competency (often via formal testing), cultural competence and funding / tuition documented in advance prior to acceptance into any programs. If we recognize the importance of these criteria in our own facilities, we must also recognize their importance when our people travel to other care settings. Ultimately, the IRB must have the ability to say "No" to an applicant / small group whose project is either terminally misguided or unable to address the IRB's concerns much as US based institutions can say to overseas visitors.

IRBs as Global Health Screeners – An Idea, but Not a Perfect Idea

Individuals who have worked with US academic center IRBs in international arenas are very likely dubious of this suggestion. IRBs are notorious for making requests that are untenable if not impossible in many lower resource settings. IRBs can make requests of researchers based on assumptions about infrastructure or patient populations that work well in their home setting but which might be problematic in low resource settings. Examples may include the proper storage of biological samples at -60 degrees Celsius or the literacy of possible study participants affecting how informed consents can or should be performed. For the researcher working

with the IRB in the IRB's traditional role, these frustrating interactions can make one feel a large disconnect between one's USbased institution and one's global research

These are fair concerns. As regards serious global health work and medical voluntourism, the IRBs will not adjudicate the overseas work unlike traditional research. The IRBs likely do not need to be particularly familiar with the overseas setting outside of monitoring language competency. The IRB does, however, need to be able to block or bless an individual's work based upon the above criteria. If an IRB is aware of a care provider who treats chronic diseases but who is not a partner with a team or healthcare system that can provide the long-term follow-up care chronic diseases demand, the IRB does not need to know the country or region of interest to know that this individual's work is in need of additional foresight.

Many will justifiably point out that much medical voluntourism is occurring in settings outside of academic institutions, such as religious groups or non-governmental organizations (NGOs). In the case of the latter, they often possess permanent staff (including locals) with a clear mission and focus that all individuals working with said NGO must follow. Many NGOs do laudable work; others have been linked to questionable practices. Nonetheless, a burgeoning industry related to short term overseas work grows constantly around many of them. Such work cannot be adjudicated similarly to the proposals in this piece, as neither religious groups nor NGO's tend to have an independent, intra-agency body capable of (near) bias-free self-critique. These groups cannot be the gatekeeper of global health work much as researchers are no longer allowed to be of research and global health professionals should no longer be allowed to be of medical voluntourism. This is why research done by NGOs in conjunction with US academic center based global health professionals must still be reviewed and approved by the IRB. While IRBs can address this research, the use of IRBs at US-based academic medical centers cannot stem the tide of short term overseas work and its related issues within the larger issue of voluntourism.

Finally, this idea would require the expansion of the IRBs themselves. Many IRBs are already heavily over-subscribed and this task would only add to their workload. This shortcoming is undeniable. More people would need to be hired. It may be that small, separate, global health focused "sub-IRBs" would need to be created within the larger superstructure, initially at institutions with larger global health presences and then at other facilities as needed. Different institutions would put these suggestions in place on a case-by-case basis as no one approach would serve all academic centers. Nonetheless, the speed at which global health and its associated voluntourism is expanding demands difficult but important

interventions and the IRB's presence and skill set often a unique opportunity. The issue of voluntourism will only become harder to curb.

Conclusion

Widespread concern about medical voluntourism exists due to its creating of redundant and inappropriate care without proper short and long term follow up, while also molding the local health workforce to suit its own needs. ^{2,5-12,16,17} A workable solution to addressing voluntourism has not been found in the form of a new bureaucracy or diploma/ degree program, though these programs are laudable and important. The current status quo of individual-level monitoring is not working. This paper presented the case for US-based academic centers to place this control in the hands of pre-existing IRBs. Despite the shortcomings of this idea, there is a need for formal, comprehensive review of all global engagement at the level of the individual, much as IRBs themselves were created in a time when there was a new recognition of a need for formal ethical review of all research activities. IRBs are existing, geographically widespread ethical bodies that can consistently and independently address the ethics of global health professionals occurring at their respective institutions, while allowing for some local flexibility within a larger ethical framework.

Acknowledgment

I am greatly indebted to Ms. Anita Chary (St. Louis, MO, USA), Dr. Naman Shah (Martinez, CA, USA), Dr. Sriram Shamasunder (San Francisco, CA, USA), Dr. Shaheen Chowdhury (New Delhi, India), my global health co-fellows in the HEAL Initiative (www.healinitiative.org/) and the editors of Journal of Global Health for their invaluable criticisms and encouragement in the writing of this piece.

- Shamasunder S. Whose Suffering Matters Less and Why? In: TEDx Berkeley, editor. 2016.
- Ackerman L. The Ethics of Short-Term International Health Electives in Developing Countries. Annals of Behavior Science and Medical Education. 2010;16(2):40-3.
- DeCamp M. Scrutinizing global short-term medical outreach. Hastings Cent Rep. 2007;37(6):21-3.
- DeCamp M. Ethical review of global short-term medical volunteerism. HEC Forum. 2011;23(2):91-
- Dharamsi S, Osei-Twum JA, Whiteman M. Socially responsible approaches to international electives and global health outreach. Med Educ. 2011;45(5):530-1.
- Dupuis CC. Humanitarian missions in the third world: a polite dissent. Plast Reconstr Surg. 2004;113(1):433-5
- Kushner J. The Voluntourist's Dilemma. The New York Times Magazine. 2016.
- Martiniuk AL, Manouchehrian M, Negin JA, Zwi AB. Brain Gains: a literature review of medical missions to low and middle-income countries. BMC Health Serv Res. 2012;12:134.
- McLennan S. Medical voluntourism in Honduras: 'Helping' the poor? Progress in Development Studies. 2014;14(2):163-79.
- 10. Snyder J, Dharamsi S, Crooks VA. Fly-By medical care: Conceptualizing the global and local social responsibilities of medical tourists and physician voluntourists. Global Health. 2011;7:6.
- Wolfberg AJ. Volunteering overseas--lessons from surgical brigades. N Engl J Med. 2006;354(5):443-

- 12. Provenzano AM, Graber LK, Elansary M, Khoshnood K, Rastegar A, Barry M. Short-term global health research projects by US medical
- students: ethical challenges for partnerships. Am J Trop Med Hyg. 2010;83(2):211-4. 13. Proehl J. Risks of voluntourism. Emerg Nurse. 2015;22(9):15.
- 14. Banatvala N, Doyal L. Knowing when to say "no" on the student elective. Students going on electives abroad need clinical guidelines. BMJ. 1998;316(7142):1404-5.
- 15. Bezruchka S. Medical tourism as medical harm to the Third World: Why? For whom? Wilderness Environ Med. 2000:11(2):77-8.
- 16. Citrin DM. The Anatomy of Ephemeral Health Care: "Health Camps" and Short-Term Medical Voluntourism in Remote Nepal. Studies in Nepali History and Society. 2010;15(1):27 - 72.
- Crump JA, Sugarman J. Ethical considerations for short-term experiences by trainees in global health. JAMA. 2008;300(12):1456-8.
- Green T, Green H, Scandlyn J, Kestler A. Perceptions of short-term medical volunteer work: a qualitative study in Guatemala. Global Health. 2009;5:4.
- 19. Liu Y, Zhang Y, Liu Z, Wang J. Gaps in studies of global health education: an empirical literature review. Glob Health Action. 2015;8:25709.
- 20. Natasha Parekh APS, Ihunanya Mbata, Adamson S Muula, Thuy Bui. Malawian impressions of expatriate physicians: A qualitative study. Malawi Medical Journal. 2016;28(2):43 - 7
- 21. Nathan LM, Banks EH, Conroy EM, McGinn AP, Ghartey JP, Wagner SA, et al. Global health training in US obstetrics and gynaecology residency programmes: perspectives of students, residents programme directors. Postgrad Med J. 2015;91(1082):685-91.
- Bristol N. NGO code of conduct hopes to stem internal brain drain. Lancet. 2008;371 (9631):2162.
- 23. Larsson EC, Atkins S, Chopra M, Ekstrom AM. What about health system strengthening and the internal brain drain? Trans R Soc Trop Med Hyg.
- 2009;103(5):533-4; author reply 4-5.

 24. Wesby M. The Help and Harm of the \$173 Billion
 "Voluntourism" Industry. Wilson Quarterly
 [Internet]. 2015. Available from: http:// wilsonquarterly.com/stories/the-help-and-harmof-the-173-billion-voluntourism-industry/.
- Stanton M. The Almost Doctor's Channel [Internet]2015. Available from: http://almost. thedoctorschannel.com/14323-2/.
- 26. Khan OA, Guerrant R, Sanders J, Carpenter C, Spottswood M, Jones DS, et al. Global health education in U.S. medical schools. BMC Med Educ. 2013;13:3.
- 27. Knudson MM, Tarpley MJ, Numann PJ. Global surgery opportunities for U.S. surgical residents: an interim report. J Surg Educ. 2015;72(4):e60-5
- 28. Schutze GE. The Way Forward for Global Health
- Training Programs. Pediatrics. 2015; 136(3):571-2. 29. Birnberg JM, Lypson M, Anderson RA, Theodosis C, Kim J, Olopade OI, et al. Incoming resident interest in global health: occasional travel versus a future career abroad? J Grad Med Educ. 2011;3(3):400-3.
- 30. Campbell RM, Pleic M, Connolly importance of a common global health definition: How Canada's definition influences its strategic direction in global health. J Glob Health. 2012;2(1):010301
- 31. Koplan JP, Bond TC, Merson MH, Reddy KS, Rodriguez MH, Sewankambo NK, et al. Towards a common definition of global health. Lancet. 2009;373(9679):1993-5.
- 32. University of Alabama Birmingham School of Medicine: The Gorgas Course in Clinical Tropical Medicine. Diploma Course: Curriculum [Available http://www.uab.edu/medicine/gorgas/
- 33. Mahidol University Faculty of Tropical Medicine. Curriculum: Standard Criteria for Graduate Diploma 1999 [Available from: http://www. tm.mahidol.ac.th/bstm/programs/dtmh/ curriculum.html.
- 34. Freedman DO, Gotuzzo E, Seas C, Legua P, Plier DA, Vermund SH, et al. Educational programs to enhance medical expertise in tropical diseases: the Gorgas Course experience 1996-2001. Am J Trop Med Hyg. 2002;66(5):526-32.
- John Hopkins Medicine: Emergency Medicine Disaster Fellowship. [Available from: http:// www.hopkinsmedicine.org/emergencymedicine/ fellowship_programs/disaster.html.