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Best Practices in Global Health Practicums: Recommendations from the Association of Pacific Rim Universities

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Introduction

Global health education programs play a critical role in developing a competent workforce and leaders poised and able to address current and future global health challenges. Due to overwhelming student demand for education in this emerging field, numerous academic institutions around the world now offer degrees or concentrations specifically related to global health. This growth has also led a number of relevant academic groups, including the Consortium of Global Health Universities and the Association of Public Health Programs and Schools, to outline global health competencies to help guide schools in curriculum development [1, 3, 4, 8, 33]. A common theme of these lists of competencies is the recognition that global health expertise goes beyond public health training; it requires additional skills relevant to global health and development to make contextual change and population impact, including appreciation for different political and health systems, cultural competence, and the ability to work in diverse multi-cultural teams [12]. Many of these competencies are best acquired through real-life practice, rather than in the classroom.

Acknowledging this, academic programs in global health often recommend, or even require, that students to complete practicums (also called international rotations, electives, placements or internships) abroad. Generally, they are short-term (between 2 and 8 weeks) opportunities for students to work with a host institution abroad.

Much of the literature on global health practicums relates to experiences of medical students from North America [9, 11, 16, 18, 20, 24, 26, 31, 32]. Generally, students report very favorable experiences with a multitude of benefits, including the acquisition of new clinical skills, increased cultural competency, increased awareness regarding health challenges in resource-constrained health systems, and greater overall self-confidence [16, 18, 31, 32]. Some students also view practicums as a way to become more competitive in the job market [11, 16]. As with domestic practicums, international practicum experiences are also useful in helping students appreciate global health within a real-world setting, giving them the opportunity to apply what they have learned in the classroom. For host countries and institutions, short-term visits from foreign students can help address health disparities and the shortage of skilled health care workers or researchers, provide educational or training opportunities for the hosting institution, as well as help foster international partnerships [4, 31, 34].

However, many potential challenges of international practicums have been highlighted, including concerns regarding student safety and well-being, the limited time and resources of host institutions to manage adequately students, limited contributions by students due to the lack of skills and abilities, the lack of mutual benefit, and lack of agreement regarding the program objectives [4–6, 9, 16, 19, 21, 22, 25, 27, 31].

The objective of this paper is to report on the efforts of the Association of Pacific Rim Universities' (APRU) Global

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Health Program (GHP) to develop collaboratively a set of recommendations regarding global health practicums for academic institutions. APRU is an international consortium of 45 research universities in the Pacific Rim, representing 16 countries, 120,000 faculty members and approximately two million students. The APRU GHP was launched in 2007–2008 to foster collaboration in global health in a regional context. The GHP's membership is composed of APRU faculty members who are actively engaged in global health research and education. The GHP's activities in research, education, and service on a wide range of health topics illustrate the diverse dimensions of global health. One key focus of the Program is global health education and training at the undergraduate, graduate and post-graduate levels. A broad range of international practicum and immersion experiences are offered by members of the group, both as sending and host institutions.

Methods

The APRU GHP conducted a one-day workshop to develop a set of recommendations to help academic institutions establish global health practicums, or improve existing programs. The workshop was held during the annual conference in Taipei, Taiwan in 2014. The 43 participants working in global health included students, faculty members, academic program administrators, and non-governmental organization (NGO) staff, from 13 Pacific Rim economies (Malaysia, Thailand, Hong Kong, Japan, the Philippines, Indonesia, the United States, China, Taiwan, Australia, South Korea, Singapore, Mexico) represented many disciplines, including medicine, nursing, public health, law, communications, and business. The workshop began with a presentation examining the existing literature. Then, the group was divided into small groups of six to eight participants from a range of countries and disciplines to discuss three main questions: (1) What are the objectives and potential benefits of a global health practicum?; (2) What are the main challenges that can arise in global health practicums?; and (3) What are the recommended practices in order to minimize these issues? One faculty with experience in organizing, administering or leading global health practicums facilitated each group's discussion. Participants were encouraged to examine the issues from different stakeholder perspectives, including students, university international offices, and hosting organizations and were asked to share their own experiences and lessons learned. The workshop concluded with a debriefing from each group. A second workshop was held the following year during the APRU Global Health Program's annual conference in 2015 in Osaka, Japan, to further discuss the themes. Over the next year, the co-authors of this paper provided

additional direction and leadership to refine the guidelines until consensus was reached among the group.

Results

The participants delineated three types of practicum experiences, including (1) faculty-led trips abroad; (2) university-sponsored, formal structured programs; and (3) those that students go on independently, typically opportunities that students identify on their own and that are not formally part of the academic institution's program. They commented on the similarities and differences of each of these experiences. A number of objectives, challenges, and recommendations for the development and implementation of global health practicum were discussed. A synthesis of the multiple perspectives of students, academic coordinators, university program administrators, and hosting organizations from low-and middle-income countries (LMIC) and high-income countries (HICs) are presented in Table 1.

Practicum Objectives and Benefits

It was widely acknowledged that practicums have a range of benefits for students that make them virtually indispensable in terms of global health training. From students' perspectives, practicums motivate them to engage in career development activities while also fulfilling program requirements. Students felt that practicums were extremely useful in helping to understand how the main principles of global health apply in real-life settings. There were practical, career-related benefits to students, such as helping them be competitive for graduate school or job applications. Practicums helped them learn more about what job-related activities they might do in their global health careers. For those who hadn't spent much time in LMICs, practicums helped them decide if global health is an appropriate career choice.

Faculty members and staff felt that the main benefit for students was the opportunity to visit resource-constrained settings and witness the social, cultural and environmental determinants, giving students a better understanding of global health disparities and real-world challenges. They stressed the role that fieldwork can have in helping students to see the implementation of theory, translating theoretical concepts into real-life global health practice. Another primary objective was to build global citizens through the promotion of social responsibility among students in HICs. They stressed the role that immersion in other cultural settings plays in improving students' cultural competency skills and appreciation for other cultures. Such experiences can promote students' self-awareness, reflexivity, and can positively impact students' confidence and self-efficacy. In addition, tasking students with writing reports/reflective journals

Table 1 Perspectives on Global Health Practicums from LMIC and HIC participants

Participants	Benefits	Challenges	Recommendations
Students	• Motivate to engage in career development activities • Understand how the main principles of global health apply in real-life settings • Help become competitive for graduate school or job applications • Learn more about what job-related activities they might do in their global health careers • Decide if global health is an appropriate career choice	• Differing expectations • Language and cultural barriers • Effective mentorship • Financial costs • Unclear roles and responsibilities	• Clear objectives • Effective mentorship • Program evaluation • Safety protocols
University Academic Coordinators and Program Administrators	• Positive impact on students' personal and professional development • Opportunity to visit resource-constrained settings • Witness the social, cultural and environmental determinants, giving students a better understanding of global health disparities and real-world challenges • Implementation of theory, translating theoretical concepts into real-life global health practice • Build global citizens through the promotion of social responsibility among students in HICs • Improving students' cultural competency skills and appreciation for other cultures • Promote students' self-awareness, reflexivity, and can positively impact students' confidence and self-efficacy • Hone foreign language proficiency, time management, communications skills • Promote team work, leadership and organizational skills • Build research capacity among students • Generate resources to redress inequities between LMICs and HICs • Strategic way to recruit top students	• Differing expectations • Student misconduct • Effective mentorship • Language and cultural barriers • Lack of mutual benefit • Lack of financial resources dedicated to practicum programs • How to ensure the value of the practicum and safety concerns	• Student selection • Clear objectives • Effective mentorship • Pre-trip orientation • Pre-requisite competencies and ethics training • Increased funding • Program evaluation • Safety protocols
Hosting Organizations	• Promote community engagement and learning • Creation and strengthening of networks, relationships, and collaborations • Collaborative relationships lead to new research studies and products of these studies, i.e. publications or conference presentations • Research development among host country staff and community members; bi-directional sharing of information	• Potential for conflict between hosting and sending institutions • Student misconduct • Unclear objectives • Unclear roles and responsibilities • Lack of mutual benefit • Language and cultural barriers • Financial costs to hosting institutions • Failure to acknowledge contributions of host institutions and communities	• Contribute inputs in student selection • Have inputs in the development of clear objectives • Effective mentorship • Pre-trip orientation • Pre-requisite competencies and ethics training • Increased funding • Program evaluation • Safety protocols

or blogs and sharing their experiences in the classroom can enrich class discussions as well as promote student self-reflexivity. Practicums can also help students hone foreign language proficiency through interactions with research participants, local community members, patients and healthcare providers. Students can further cultivate their skills in time management, and communication with diverse groups. Practicums also often encourage teamwork and leadership as students practice organizational skills, as well as build their capacity to conduct community based training workshops, clinical care, research, write policy briefs/reports and/or administer programs. Working in community settings is

an important learning opportunity for future health professionals as they engage with local government leaders and community members to better understand health system issues, since most clinical based training for medical, nursing, allied health, midwifery, dentistry students tends to be based in hospitals and other clinical institutions. Depending on the program, active engagement of professionals/faculty members could be a benefit, as this level of mentorship is often not provided during coursework.

In terms of the main benefits to sending and host institutions, the creation and strengthening of networks, relationships, and collaborations was identified. These relationships can be between students, between institutions and universities, across disciplines, and between health care workers and the population being served. Practicums can help foster collaborative relationships with institutions in other countries, potentially leading to new research studies and products of these studies, such as publications or conference presentations. Not only do practicums have the potential to build interprofessional, cross disciplinary, clinical, public health and research capacity among the students, they can also build capacity among staff, or community members in the host country and can facilitate bi-directional sharing of information. Participants also felt that an important role of global health practicums is redressing inequities between LMICs and HICs. For example, practicums can be instrumental in generating services or resources that would not have otherwise been available. Partnerships that are formed between the institutions could lead to new funding for research collaborations.

Finally, faculty and academic program administrators felt that sending institutions may enhance their ability to recruit top students by offering practicums. As many universities aim to increase their global presence and visibility, as well as their reputation for being leaders in international education and research, offering such programs can be strategic in meeting those goals.

Challenges

The second discussion question related to the potential challenges associated with global health practicums. The groups identified eight major challenges: (1) conflicts between partners; (2) language and cultural barriers; (3) student misconduct; (4) lack of mutual benefit; (5) effective mentorship; (6) lack of financial resources dedicated to practicum programs; (7) how to ensure the value of the practicum; and (8) student safety concerns.

One important challenge identified was the potential for conflict between host and sending institutions. In some of our experiences, this was unfortunately a common problem which can jeopardize existing relationships and collaborations between partners. One major source of such conflict is differing expectations between students, programs and hosts. It was widely acknowledged among the participants that programs are often developed with little consideration of the true benefits and costs of the program for host institutions and communities. Students often require more assistance and other resources than is anticipated by sending institutions and host institutions often receive little or no compensation for the service they are providing, creating feelings of resentment. Some participants felt that host institutions had little say in the development of the practicum objectives, or in the selection of student interns. In addition, they felt that the roles and responsibilities of each partner, as well as students, are often vague, contributing to the likelihood of misunderstandings. Another source of conflict was ownership of data and any products that result from the practicum. Participants from host institutions felt that failure to acknowledge the contribution of partners from the hosting institution or from the community in terms of publications and conference presentations was common.

Cultural and language barriers were also perceived to be major potential contributors to conflict. A lack of awareness or disregard for religious or cultural practices by students could result in misunderstandings. Students may not have the language fluency to effectively communicate with community members, which not only severely limits their interactions and learning opportunities and heightens this risk. Such issues are especially problematic in community-based research.

The third major challenge identified was student misconduct, including unethical or inappropriate behavior. Sometimes this relates to blatant student misbehavior. However, more commonly, such behavior is not intentional, but instead reflects a lack of communication of expectations to students about appropriate behavior or students' lack of understanding about the local culture. For example, students might be unaware of cultural norms surrounding public consumption of alcohol, appropriate dress, loud discussions in public places, or other culturally inappropriate behaviors. Such behavior can also point to a lack of mentorship, or lack of understanding about the objectives and expectations of the practicum. Students can be put in uncomfortable positions by host institutions by being asked to perform duties that are beyond their skills set or confidence level, which can also lead to ethical dilemmas in terms of providing sub-standard care to community members. Questionable behavior may also result from students' lack of awareness about the ethical standards of research, such as confidentiality, privacy, informed consent, and coercive practices. This seems to happen more frequently in clinical settings. Some programs accept all students who apply, instead of establishing a system to screen students to identify and reject students that may not be suitable candidates for the practicum experience. This would include students who are not prepared to

act independently, who may not be able to adjust to living in resource-constrained settings or in new cultural settings.

It was also noted that practicums are frequently very one-sided, benefitting the sending institutions much more than host institutions. Partners at host institutions, often located in LMICs, may feel that they are being exploited because they receive little compensation yet are tasked with numerous responsibilities. Such tasks may create an increased work burden for hosting institutions that are already understaffed and may not be able to adequately support these activities. Scarce resources, especially manpower, may be diverted from community work or patient care to assist students, such as translators or escorts or guardians when security concerns are present. This creates a very ineffective use of resources and also ethically questionable situations in which the needs of the sending institution take precedence over the needs of the host institution and community. In addition, it was noted that practicums are often uni-directional, offering limited or no opportunities for host institutions to send students to train at the sending institution.

This challenge also related to the sustainability of the programs. Such programs, especially short-term international medical trips, have been called "voluntourism", or "intellectual tourism" [21, 23, 24] and have been criticized for being paternalistic. Depending upon the level of engagement of the practicum partners, programs or services that students engage in during their practicums may not be sustained once they leave, widening the very disparities that practicums purportedly address. In such cases, efforts that were designed to improve the health and welfare of local residents become detrimental to the community, potentially causing mistrust and resentment.

A fifth challenge is effective mentorship before and during the practicum. Faculty who had experience with global health practicums related that they often spent a significant amount of time mentoring students doing practicums but that this time was rarely acknowledged by their departments. The importance of mentorship cannot be overstated, yet it is often overlooked in terms of time commitments. Furthermore, host institutions may bear the majority of the mentorship responsibilities without receiving adequate compensation. In addition, students who do not go on formal, university-organized trips may not have a faculty mentor from their university to oversee their work, which can inhibit the quality of the work produced, and increase the potential for conflict between partners.

The sixth challenge identified was lack of financial resources dedicated to providing and managing practicum programs. With little funds available for students to engage in such experiences, this means that only students who can self-fund their trips can participate. We noted that, with few exceptions, it is the wealthier students that typically participate in such experiences. We see this inequity as a major limitation of such programs. A lack of a budget for administering practicum programs can also create challenges in ensuring that academic institutions devote enough time and resources towards adequate student preparation, faculty mentorship, and proper program evaluation in the long-term.

Another main challenge is how to ensure that a practicum is a valuable experience for students. Faculty raised the important question of how to guarantee that students are sufficiently engaged in the work, and that the work is meaningful. Academic program administrators emphasized the difficulties of actively facilitating learning from long-distance, especially in settings with limited internet connectivity. They also highlighted the difficulties in evaluating the success of the practicum experience both in terms of student learning and the impact that the program has on the research or community in which the students are engaged. Since the experiences are so diverse, it may not be feasible to set up a formal, standardized evaluation process. Students focused on how to ensure that they meet the objectives and requirements of the practicum program. This was especially a concern if students don't participate in a faculty-led or university-sponsored program but instead conduct an independent practicum that they have set up on their own.

The final challenge recognized was safety concerns for students while in the field. While abroad, students may be at risk for a range of potentially unavoidable health and safety issues, including crime, infectious diseases, conflict and violence, natural disasters, and road injuries. Yet, many participants related that their institutions lacked any formal safety and security protocols for students who go abroad.

Best Practices

The third area of discussion was best practices that can help address or minimize the challenges identified by the group. Here, we present eight specific recommendations that relate to these challenges: (1) student selection; (2) clear objectives; (3) pre-trip orientation; (4) pre-requisite competencies and ethics training; (5) increased funding; (6) effective mentorship; (7) program evaluation; and (8) safety protocols.

Student Selection

We recommend a strict selection process for students applying for global health practicums in order to minimize potential problems. A competitive application system can help institutions determine if the students are prepared and mature enough for a cultural immersion experience. Students can be screened for maturity, flexibility, adaptability, and dependability through interviews or written applications. Their objectives for participating in the program and their willingness to learn and adapt to different environments should be carefully reviewed. Each partner

should play an active role in designing the program and choosing the participants; the hosting institution should receive applicants' CVs and have the opportunity to conduct interviews by teleconference with potential interns. Host institutions should propose criteria for student selection, as well as offer ideas about the best way to match hosts and students based on the host institutions' interests and needs. Participants also felt that practicums in which the student will receive course credit and/or a final grade might encourage more responsible student behavior, whether it is through a faculty-led course or through international independent study. Another suggestion was to have faculty and practicum coordinators steer students who might not have previous international experience or who may have challenges working independently in a foreign country towards faculty-led programs. Institutions were encouraged to offer short-term trips led by faculty in order to offer international exposure to students that may not be suited for longer-term, independent experiences abroad.

Clear, Specific Objectives and Guidelines

Clear and specific objectives and guidelines should be developed in collaboration with the hosting institution. Misunderstandings or miscommunications often result when the specific objectives and responsibilities are not adequately outlined. Practicums are often structured differently, as there may be short-term faculty-led trips, programs in which students are sent on their own to an existing program, or even those that students identify on their own. Regardless of the practicum structure, institutions should clearly outline the objectives of each practicum experience. These objectives should be based on the set of competencies that students are required to meet in their degree programs, and should be communicated with students. Agreement on the objectives and guidelines of practicums can help minimize misunderstandings with the sending and host institutions. The roles and responsibilities of each partner should be clearly delineated and all partners should also be aware of each other's roles and expectations. In order to avoid misunderstandings caused by differing expectations, MOUs (memorandum of understanding) or formal affiliation agreements should be established. For example, partners should make specific agreement about the honoraria, as well as any ownership of data and research products, and authorship of publications. In addition, many programs lack the attention to promoting students' self-reflexivity as a formal program objective. Academic institutions must consider ways that the practicums can foster the development of social responsibility and global citizenship among students in order to adequately address the potential long-term benefits to students.

Student Pre-trip Orientation

Students need to understand acceptable behavior and the penalties for non-compliance. In order to assure that these are communicated clearly, and to minimize potential challenges, a structured pre-departure orientation should be offered to brief students on appropriate behavior, health and safety issues, and cultural norms. Students should be made aware of expectations, who their field supervisor is, policies about tardiness or required work schedule and days off. This training is helpful in minimizing cultural conflicts between host and students. Providing information from previous practicum students' experiences could be valuable. Linking students going on practicums with students or faculty members from that country was also recommended so that they can share their knowledge about the local context and potential safety concerns.

Pre-requisite Competencies and Ethics Training

Student participation in practicums should require a minimal level of training in ethics. As applicable, students should be required to complete training on ethical standards in a clinical setting, in research with human subjects, and/or in community-based research. They should also be required to complete a course or, at a minimum, attend an orientation on cultural sensitivity or cultural competency. Students should be required to earn ethical clearance from their own institutions and any host or community organizations. Mentors should ensure the host institution or country has granted permission to conduct research. We also recommend having at least one global health-related course as a pre-requisite. Finally, we strongly encourage giving priority to students who have a minimum level of language proficiency in practicums based in countries where a foreign language is spoken.

Increased Funding

We recognized the financial challenges that sending institutions may face in providing international practicum opportunities for students. However, we believe that sufficient funding for such programs should be considered a priority because of the significant impact of such experiences on student education and training in global health. Academic institutions should aim to work within the various offices of the institutions, as well as government and private sector partners, to find opportunities for financial support to allow all interested students to engage in such activities. The potential resources that students may require, such as translators, should be assessed. Honorarium should also be

established so that host field supervisors or host families are adequately compensated for their time.

Mutual Benefit and Reciprocity

It was noted that practicums often benefit the sending institution much more than the hosting one. Traditionally, many programs are designed as uni-directional transfers from HICs to LMICs but this was perceived to be short-sighted. Practicum programs should be perceived as opportunities for bilateral education, with both sides learning from each other. A practicum should be viewed as a partnership between organizations and institutions for mutual benefit and each member should be considered an equal partner. The true benefits and costs of the program need to be worked into the cost of the experience from the start and the two institutions need to work closely together on developing the terms of reference for the visiting students to ensure that they are using their time to benefit both parties. Participants also discussed the optimal length of an international practicum. The potential value of the work to the hosts should determine the minimum time commitment in the field.

The sustainability of the programs in the host country was another important consideration in ensuring mutual benefit. The ultimate goal of the practicum should be to develop projects which benefit the host institution, the community members, and the students. Although not uncommon, projects should not be established merely for the sake of specific research projects but -instead with long-term relationships in mind. The community should be actively involved in the project and the projects should be based on community members' needs and priorities. Annual programs should attempt to build off of the work of previous years' programs in order to avoid duplication of efforts. An important lesson learned by some of the workshop participants was that projects should continue to expand and evolve each year instead of being repeated. This contributes to higher satisfaction among partners in the community. Students are most often on the ground far too short a period of time to make any meaningful contribution to a public health program and receiving institutions can suffer from numerous small, poorly thought out initiatives that never get off the ground. To counter this, partnered institutions need to establish ongoing projects that students can contribute to during their often very short stays rather than trying to think up something new or independent each time. Over time the consolidated effort can result in meaningful outcomes. Projects that can be conducted in phases that build on each other are optimal for such short-term experiences, as students in different cohorts could work on the project at each phase. For example, phase one might include the development and testing of a study instrument, phase two could include data collection, and phase three could include data analysis, phase four could include dissemination of the results, and phase five could include the development of educational flyers or the creation of a video based on the results. In the experience of some of the workshop participants, the scope of work done by students has been evaluated, refined, and expanded over time in response to the community's needs.

Networks or groups of universities should work together to create shared projects if they are working in the same host country in order to develop a community on a global scale. The participants identified the need to try to develop more collaboration on the part of the sending institutions so that efforts are more synergistic, and cost-effective for both parties. It is common for multiple academic institutions to have practicums in the same country, and even same community. However, the sending institutions rarely share information or work together. More coordination could help avoid duplication of efforts and can reduce the burden to the host institution. This will encourage sharing resources and knowledge regarding practicums; for example, within APRU, multiple universities send students during the summer to work together in one location with one faculty member overseeing the group.

Effective Mentorship

Good communication and close collaboration is required between organizations in order to support student activities during the practicum. Regular communication between the host and sending institutions and students is fundamental to the program success. Adequate supervision is essential to students' active engagement and successful practicum experience, particularly while they are in the field. Whether the practicum is a faculty-led program or one in which the student works independently abroad, programs should require close supervision and mentorship of each practicum student. Designating a faculty member to oversee international practicums can help to streamline this process. Students should be required to develop a specific proposal in consultation with their faculty and local mentors outlining their scope of work and any deliverables with a timetable. We also recommend that the mentorship efforts of faculty are factored into performance evaluation in order to encourage better quality mentorship. This could be done through student evaluations of mentors, having faculty mentors log the hours they dedicate to mentorship, and providing awards and special recognition to outstanding mentors.

Evaluation of the Program

We also recommend conducting periodic evaluations of practicums to assess whether the practicums are achieving the goals of the program. Practical assessments and formal program evaluation from multiple perspectives are

recommended. We noted that the evaluations may have to be tailored to fit the practicum design, should be contextually-based, and should be done both in the short-term and in the long-term by all stakeholders—students, hosts, sending institutions and communities. Students should be evaluated by supervisors, communities, and host organizations. Incorporating host institutions' feedback into this process should not be overlooked. Universities can evaluate the program based on number of students enrolled and graduated, faculty members' time and efforts, student and host institution feedback, and unexpected obstacles. Student feedback immediately following the practicum can help eliminate practicums that did not meet program objectives. We recommend debriefing sessions with students soon after they return. Another strategy is to hold student practicum presentation sessions and invite faculty and students to attend.

Evaluation should assess the structure of the practicum program itself, as well as former students' achievements during and after the program. Reflexivity should be considered a major goal of the practicum experiences. Students should also complete self-assessments through journals, blogs, or surveys in order to facilitate self-reflection. Students should be tracked after graduation to determine what impacts, if any, the practicum had. For example, data collection should include metrics such as presentations or publications relating to the practicum, additional global health fieldwork, and global health-related academic and career paths. The long-term impact of the experience on students' career trajectories could help institutions ascertain the program's value. Finally, in-depth analysis of the true benefits and costs of the program for host institutions and communities is also a critical component of the evaluation.

Safety Protocols

The importance of the establishment of guidelines and protocols for the prevention and management of health and safety issues cannot be overemphasized. Such activities require careful assessment and planning. Several potential mitigation strategies were identified. Academic institutions should require formal registration of students with the local embassy, vaccinations and prophylactic medications, travel insurance and medical evacuation insurance, and outlining specific protocols for safe clinical care practices as appropriate. We recommend providing a written guide to these policies. Regular communication between the sending and host institutions should be mandated. Guidelines should outline a detailed response to any emergency issues by each partner. Counseling for students on behaviors that inhibit and protect personal safety (such as walking alone at night, excessive drinking of alcohol, or consumption of potentially unsafe food or water) should also be part of the required pre-trip departure training.

Discussion

Most of the available literature regarding global health practicums come from North America and from the perspective of the sending institution, and thus may fail to offer perspectives of institutions from other countries, especially those of LMICs which suffer a significant proportion of the global disease burden. Here we provided a summary of the workshop discussions around developing best practices for global health practicums from a diverse group of participants from 13 economies in the Pacific Rim region, representing both sending and hosting institutions. Our recommendations are based on experiences of our institutions from a range of diverse viewpoints of students, faculty, program administrators, NGO staff, and government officials.

Our group identified a multitude of potential benefits that practicum provide for students, including exposure to global health practice in a real-world setting, and the acquisition of new skills. However, we also identified a range of challenges, including several potential serious ethical dilemmas. We observed that some programs prioritize the interests and needs of the sending institution rather than the needs of the host institution, or without consideration of the health context of the country. Responding to this criticism, we underscore the need for institutions to critically examine the practicum experiences that they organize or approve for their students. While many programs may have the best of intentions, in reality they may lead to negative impacts or even unintentional harm to those involved. For example, students may perform clinical care for which they are not qualified, or the work that is done is not sustainable, leaving the community feeling resentful. Furthermore, as others have noted, practicums can sometimes promote "intellectual tourism", which involves the application of traditional academic knowledge and practice to new cultures without sufficient regard for the partners in the hosting countries [15, 19]. We agree with other scholars that practicums often fail to sufficiently include the viewpoints and experiences of the host countries [8, 10, 15, 19, 29]. Joining these critics, we call upon sending institutions to take responsibility to ensure that experiences are linked to the local context and are based on the needs of the host institution. The short duration of the typical practicum can present challenges [30]. We recognize the practical issues that limit students' ability to spend a significant amount of time in the field, including family responsibilities and budgetary constraints. However, we believe that short-term practicums can be valuable to all partners if designed appropriately.

While students may become more sensitive to the social determinants of health and the contextual factors that influence health of populations in LMICs [2, 17, 25, 32], it has also been noted that practicum experiences can also intensify power differentials, accentuate cultural differences, and

perpetuate cultural and professional superiority [13, 14, 30]. Our discussions highlighted the importance of global citizenship, social responsibility and a better, contextual understanding of health inequities as major goals of the practicum experience. We emphasize the importance of personal transformation and building students' long-term commitment to social change as part of developing the practicum objectives [15, 19, 23].

We also highlighted the importance of adequate preparation of students prior to participation in a practicum, including language proficiency, and ethics training. Pre-trip orientations, as well as post-trip debriefings, are essential to the success of a practicum program. Decamp et al. [7] reported on an ethics curriculum for short-term global health trainees, which is available for free on the internet.

As students who are applying for employment or entry into academic programs are often evaluated based on their previous global health experience, we encourage academic institutions and potential employers to critically assess the value of these experiences. In order to avoid contributing to the problem of poorly-designed practicums that have little real impact, we must develop a system to evaluate their impact and quality. Simply having a global health practicum experience on a resume should not be enough. We commit to reviewing student applications with a critical lens to assess of the type of work that was involved and its potential impact, whether positive or negative. More work is needed to establish a rigorous evaluation procedure.

As others have noted, designing metrics to evaluate whether practicum programs are achieving their goals can be challenging because practicums are often structured differently depending upon the individual opportunity. Along the lines of the recommendations by Sykes' [31] review of short-term medical service trips, we concur that the systematic measurement of impacts on the populations these programs serve should be considered a necessity. Institutions that initiate global health practicums should work with the host institutions and communities to ensure strong data collection and outcome assessment so that both positive and negative outcomes can be appropriately gauged.

We also noted the importance of sustained mentorship, especially during the practicum experience. Shah et al. [28] have made excellent suggestions for the responsibilities of mentors and trainees from both the sending and host institutions with a comprehensive list of preparation and activities that need to be conducted before, during and post-practicums.

Conclusions

The experiential nature and real-world exposure of global health practicums makes them virtually indispensable as a component in the education and training of students. However, practicums can also pose difficult resource-related, logistical and ethical challenges to institutions. We call on institutions that offer global health practicums to be mindful in the development of practicums to ensure that they have the biggest potential impact to *all* partners.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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