

Identifying Challenges in Developing Undergraduate Global Health Programs

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### **Literature Review**

Global Health as an academic field is relatively new. It stems out of the fields of Public Health and International Health. Public Health emerged in the 19<sup>th</sup> century, and introduced the idea of prevention versus tertiary care, decision making based on strong evidence and data, focus on populations versus individuals, and social justice and equity-based decisions (Koplan et al., 2009). International Health developed next, with a focus on applying public health principles to low and middle-income countries, while considering local and global impacts (Merson, Black, and Mills, 2006). Following International Health, researchers and practitioners of Global Health addressed health issues as a result of rapid globalization. In contrast to its predecessor, Global Health issues have “transnational determinants,” rather than specifically crossing borders (Koplan et al., 2009). In attempting to define Global Health, Koplan et al.’s (2009) definition includes topic areas such as health equity, transnational health issues, collaboration between disciplines, and addressing both individual and population based care.

Trying to define the competencies expected of undergraduate Global Health programs is difficult because little literature exists. There is a gap in our knowledge because core competencies have yet to be established for undergraduate programs, so we are only able to draw from more established graduate Global Health programs. However, in looking at Global Health programs on the graduate level, some topics covered include global burden of disease, cultural diversity and health, human rights and ethics, and health systems (Johnson et al., 2012). In trying to define competencies further, Jogurst et al. (2015) categorized 52 competencies into a few main domains, including strategic analysis, ethics, partnering, and global burden of disease. In looking at Global Health curricula at liberal arts institutions, Hill et al. (2012) noted that

Global Health values align with the standard liberal arts education, namely, critical thinking, problem-solving, communication skills, social responsibility, ethical actions, and “knowledge of the wider world through experience and integrated study in the arts and sciences.”

One issue raised by McCall & Iltis (2014) concerns Global Health field experiences. The authors define “voluntourism” as “undergraduate student involvement in short term medical volunteer work in resource poor settings.” Challenges may arise when there are unclear descriptions of the students’ roles in working with communities. An eagerness of students to “fix” the community might be overzealous and disrespectful. Additionally, some concerns arise around the insufficient ethical training required pre-departure. A study by Bernheim et al. (2008) noted the usage of journaling during a required fieldwork placement to address, perhaps to address the importance of reflection during the field experience. Bernheim et al.’s article also addresses the interdisciplinary nature of Global Health, by describing how the University of Virginia’s undergraduate Global Health minor is taught by faculty from different schools and departments, including Arts and Sciences, medicine, engineering, nursing, and architecture, among others. The authors further discuss specific course requirements for the minor, including a language requirement, health policy, an introduction to Global Health course, a capstone thesis project, and 80-120 hours in a public health field placement.

Drain et al. (2016) looked at similarities and differences between eight institutions that offer undergraduate Global Health degrees. Each of the programs reviewed were established within the last 10 years. The authors found that most programs require an introduction to Global Health course and a community-based research methods course. Programs were categorized as having a public health-orientation, medical anthropology-orientation, or a biomedical-orientation in their core curriculum, although programs included faculty from varying disciplines. The

authors found that only one school at the time aligned with competencies outlined by the Consortium of Universities for Global Health (CUGH). Most students in the Global Health programs went on to pursue higher education in a medical or nursing school, other advanced degree, or involvement with international non-profits (Drain et. al, 2016)

The current article builds on qualitative interviews by Maring and Ahmed (2018), which included qualitative interviews with faculty members at a mid-Atlantic school about the content of their Global Health courses and expectations for their students. Three important foci of the authors were program competencies as an introduction to Global Health, programs as support for students' professional and academic goals, and courses to develop critical thinking. Based on their findings, they recommended that undergraduate Global Health programs focus on familiarity with Global Health concepts and frameworks, and graduate-level programs focus on ability to apply concepts and frameworks (Maring & Ahmed, 2018).

Previous research notes the importance of setting specific goals and competencies before beginning to develop the curriculum for a Global Health major, and addressing foundational skills including critical thinking, humility, ethics, communication, and international experience. This article builds on previous publications by collecting data from a larger sample size. We used a mixed-methods survey distributed electronically, and had responses with global perspectives which provide a richer understanding of the current state of undergraduate Global Health education across many universities and colleges.

### **Methods**

This study, a collaboration between University of Maryland, Child Family Health International (CFHI), Consortium of Universities for Global Health (CUGH), and Alleghany College/AAC&U, seeks to survey faculty about their expectations for an undergraduate Global

Health program in terms of the ideal components of a Global Health major through an online mixed-methods survey. The University of Maryland Institutional Review Board approved the research. The eligibility criteria restricted participation in the study to faculty and staff who currently teach, formerly taught, or coordinated a course with Global Health content.

We designed a mixed-methods survey about Global Health education focusing on the undergraduate level, and distributed it to Global Health educators. The respondents included faculty and staff (e.g. tenure track and professional track instructors, program directors and coordinators) at universities on six continents. The participants received a recruitment email detailing the purpose of the study and requesting their participation. Surveys were completed online through Qualtrics. Seventy-six respondents completed part or all of the survey. Most respondents heard about the survey through an email listserv or through CUGH emails or newsletters. Other recruitment was done through Child and Family Health International (CFHI), direct email contact, a colleague referral, an information booth, and a LinkedIn group post. Participants answered questions about the Global Health courses they teach, and about challenges that arise in creating undergraduate Global Health programs. Examples of topics addressed include required textbooks, program location, course themes, field experience requirements, and course syllabi. Survey responses were analyzed using qualitative methods. Specifically, thematic analysis was used to identify, analyze and report patterns within data. Analyses were conducted and reports generated. Open, axial, and selective coding were completed for one open-ended question (Qualitative Research Design, Maxwell).

## **Results**

### **Demographics**

Respondents were adults age 18 years and older, and participating faculty and staff who have either previously or currently teach or coordinate a course with Global Health content. There were 76 respondents. Fifty-five identified as female, 19 male, and two did not identify a gender. Participants' primary country of residence was the United States, with one or more responses from Canada, Pakistan, Cameroon, Uganda, Nicaragua, Lebanon, Australia, and Italy. Regarding the type of institutions represented in the responses, 31% worked at a university, 11% liberal arts college, 2% non-academic organization, and 2% other.

Most programs were housed in interdisciplinary programs such as Arts and Sciences, Medical or Nursing schools, and schools of Public Health. Among departments, the highest number of programs were housed in anthropology, public health, and medical and community health (Figure 1). Most of the undergraduate Global Health courses were part of a Public Health or other major, a Global Health minor, Global Health certificate, a Global Health minor and major, or a Global Health "pathway". There were also Global Health courses that were not connected to a formal degree. Study investigators were interested in exploring the potential for overlap between undergraduate and graduate Global Health degree programs. However, 82% of respondents reported that they were not concerned about overlap. In response to a question about how long their course has been offered, the largest number of responses reported offering a Global Health course for two to four years, followed by five to seven years. This demonstrates that Global Health as an academic concentration is relatively new.

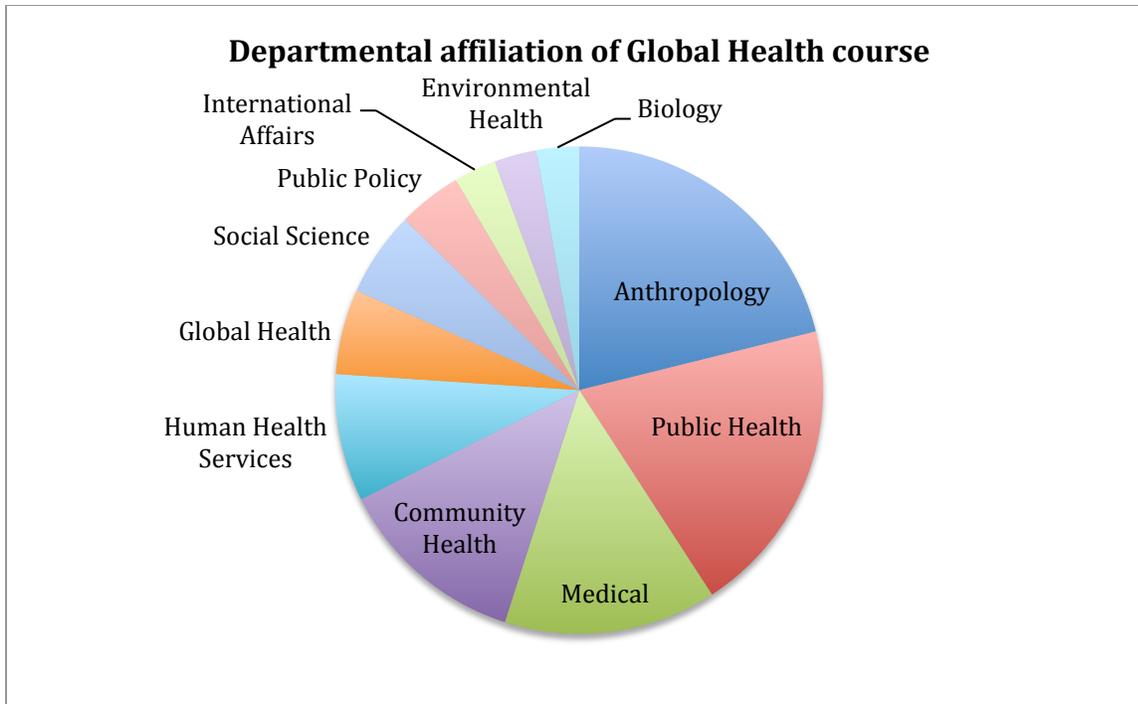


Figure 1. Departmental affiliation of Global Health course.

Participants noted that they collaborated most frequently with health professions advising, study abroad, and service learning. Regarding institutional support for their Global Health program, 35 respondents reported receiving a large amount of support, 25 reported a moderate amount, and 13 reported little to no institutional support.

### **Course curricula, competencies, themes**

In response to a question about the range of courses that related to Global Health, courses fit into four main categories: public health, anthropology, medical/nursing/dental programs, and multidisciplinary courses (Table 1). Some examples of public-health-type courses included Global Health Foundations and Biostatistics. Anthropology courses included Health and Healing Across Cultures, and Medical Anthropology. A number of respondents were educators in different medical settings. Thus, some medical-themed courses included Community Pediatrics

and Comparative Healthcare Systems. The final category of courses was multidisciplinary, and included such courses as Politics of Pandemic and Outbreak Response, and One Health Policy.

<b>Public Health</b>	<b>Anthropology</b>	<b>Medical/Nursing/Dental Programs</b>	<b>Multidisciplinary</b>
Introduction to Public Health	Medical Anthropology	Community Pediatrics	Politics of Pandemic and Outbreak Response
Global Health Foundations	Anthropology of Global Health	Comparative Healthcare System	Hogs, Bats, and Ebola: An introduction to One Health Policy
Biostatistics	Population Displacement and Global Health	Global Health in Social Medicine	Entrepreneurial Problem Solving in Global Health
Power, Sex, Gender, and Global Health	Health and Healing Across Cultures	Indigenous Medicines of Latin America	Study Abroad in The Gambia (focus more on development than health)

Table 1. Example Global Health courses.

Regarding themes formally addressed by Global Health courses, the most common response was “Global Burden of Disease,” followed closely by “Social Determinants of Health” and “Health Disparities” (Figure 2). The next most common answers included, “Organizations Involved in Global Health,” “Communicable Diseases,” “Public Health,” and “Culture Studies” (Figure 2). Other salient responses included chronic disease, human rights, ethics, health systems, gender, maternal health, Global Health funding, and child health. The most common textbooks used were “Reimagining Global Health” by Farmer, Kim, Kleinman, and Basilio

(n=11), “Global Health 101” by Skolnik(n=10), and “Introduction to Global Health by Jacobson (n=5).

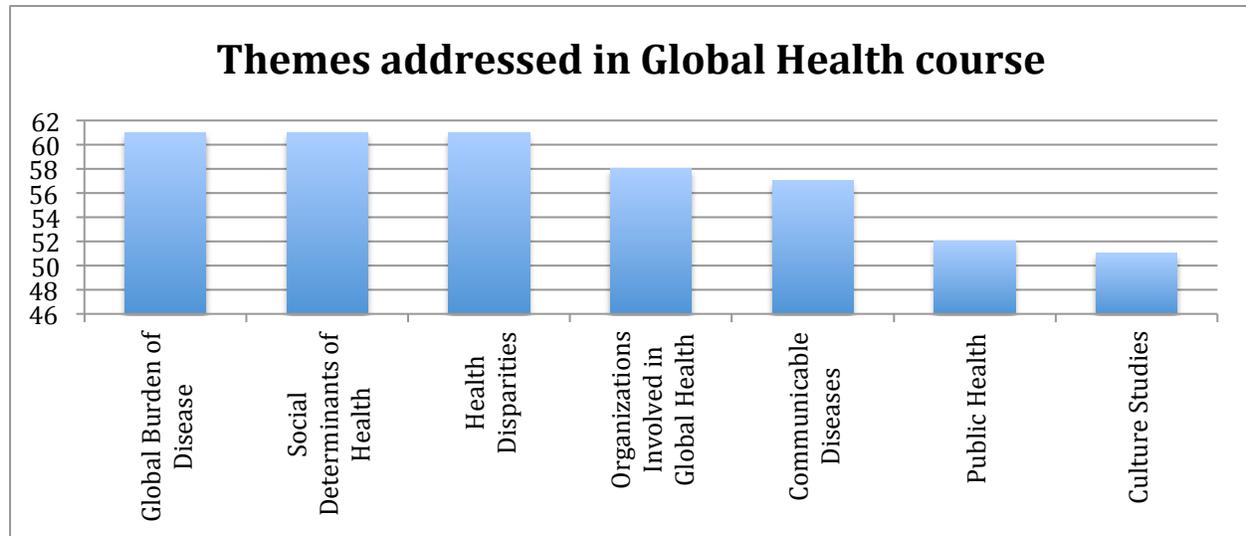


Figure 2. Themes addressed in Global Health course.

There did not appear to be a standardized set of competencies utilized by all Global Health programs. The results demonstrated that 89% of respondents reported that their course was not designed to meet standardized competencies. The most common competencies that were utilized were discipline-specific (51% of respondents). In order of frequency of responses, the standardized competencies that were used included ASPPH (Association of Schools and Programs of Public Health) Competencies (18%), One Health Initiative, CUGH (Consortium of Universities for Global Health) Interprofessional Global Health Competencies, GHEC (Global Health Essential Core Competencies), and AAC&U VALUE (Association of American Colleges & Universities Valid Assessment of Learning in Undergraduate Education) Rubric (3%).

### **Field experiences and pre-departure training**

About 22% of respondents said that field experiences are encouraged but not required, and 16% of respondents reported that their programs do require a field experience (Figure 3). Of those who responded that their programs do encourage or require a field experience, most are

“domestic” or “local” and some are “international” or “overseas” experiences. Programs offer field experiences in partnership with their university, through faculty partnerships, or through outside organizations that faculty or the universities have vetted. A smaller number of respondents said that students organize their own field experiences. Respondents noted that field experiences did not include hands-on patient care. Just under half of the respondents (49%) reported that their programs do not encourage or require a field experience.



Figure 3. Field experience requirements.

While 51 respondents noted that they are concerned about ethics and safety during field experiences (Figure 4), only 37 respondents reported that their program has a pre-departure training to prepare students for ethical and safe field experiences. However, most of the programs that offer pre-departure training make it a requirement. The average pre-departure training lasted four or more hours. Trainings included an online travel preparation course in addition to in-person instruction, a one-credit course, a semester-long course in addition to

specialized workshops, and a seminar. A majority of respondents (86%) reported utilizing critical reflection in their Global Health course.

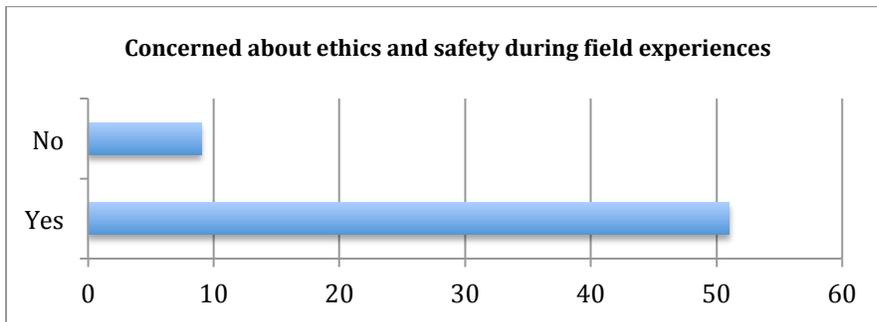


Figure 4. Concern about ethics and safety during field experiences.

### **Students' future aspirations**

An area for exploration among undergraduate Global Health course instructors is students' future aspirations. With regard to graduate or professional goals, 61% of respondents said that their students are pre-health, 30% said that their students were not pre-health, and 10% were unsure of their students' future aspirations. Most respondents believe (50%) that they are preparing students for a Masters in Public Health, medical school, degree in the social sciences, or entering straight into the workforce in a Global Health field (Figure 5). A small number of respondents reported nursing, One Health, planning and community development, international education, Peace Corps, and non-profit management. Finally, one respondent noted that the faculty role was to prepare students to be well-rounded active global citizens with a strong social justice framework.

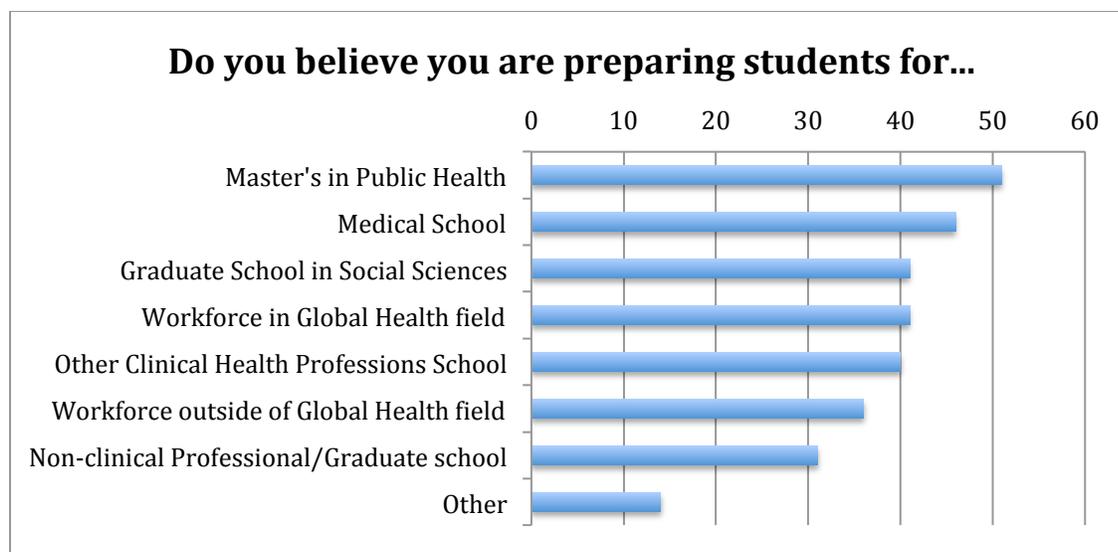


Figure 5. Future careers undergraduate Global Health programs are preparing students for.

### Open-coding

The final question on the questionnaire asked participants, “What are the biggest challenges you face with your Global Health course(s)?” The question had an open-ended response format and responses were analyzed using qualitative methods. The question received 58 responses. Thematic analysis was conducted using modified open, axial, and selective coding. That is, an emergent process was used for three distinct phases of analysis with the final leading to six primary themes emerging from the analysis. Themes included: students, curriculum development, funding, institutional support, reciprocity, and resources. Several sub-themes emerged from each of the six themes.

**Students.** Participants in the study reported high student demand for Global Health courses, but noted a lack of resources such as mentors, advisors, and sufficient faculty. They also note the challenge of teaching a range of student background knowledge, age, abilities, and behavior all in one classroom. Some respondents reported frustration in trying to teach students to think independently, critically, and more broadly. According to one respondent, “Most of my

students have never been outside of a 30 mile radius from their hometowns and it is challenging to introduce the challenges and considerations of working globally.” A common thread was the misunderstanding among both students and faculty about what Global Health means. One respondent shared, “I teach in a Christian university, and many of my colleagues and students assume that Global Health means ‘medical missions.’”

**Curriculum.** Respondents reported that they had too much material to cover in a short period of time, and suggested that there be more pre-requisites for taking Global Health courses. As one respondent noted, “The biggest challenge is that many students do not have any prior exposure to the topic, so it would help to have more offerings in both introductory Global Health and international organizations so that students could take them beforehand.” Furthermore, participants noted the challenge in creating a lecture hall-style curriculum that is contemporary and includes exposure to field experiences in Global Health engagement.

**Funding.** Funding issues revolved primarily around equity in access to Global Health courses and overseas experiences. For instance, one respondent noted, “With very few faculty engaged in international work and little university support for student travel it can be difficult to introduce other perspectives and expertise into the course.”

**Institutional.** There were a number of challenges pertaining to the institution. At a number of schools respondents found it difficult to include Global Health courses in an already packed core curriculum. Additionally, participants found that a lower value was placed on teaching Global Health in comparison to other required courses. For example, a respondent from a nursing school noted, “Public health, let alone Global Health, is not tested on the nurse licensing exam. Therefore, neither are a big priority of the department.” In addition, respondents reported that Global Health courses were undervalued by the institution and by other faculty.

One respondent noted, “The ‘hard’ science faculty want us coordinators to upgrade to a Global Health major so that it would be a ‘dumping ground’ for their pre-med students who are floundering in their courses.” A number of respondents reported attempting to create a Global Health certificate, minor, or major, only to be denied by their department or institution. One respondent noted as a challenge, “Precarious employment. I developed the only undergraduate medical anthropology course in [city name] but did so over 6 years while on short-term contracts. My structural position was my greatest impediment.” Relatedly, a shortage of tenured faculty to teach Global Health courses was reported.

**Reciprocity.** Many respondents noted the importance of building reciprocity with the communities when students travel for field placements or study abroad programs. They reported that they felt challenged by ensuring productive overseas experiences for both the students and the individuals and families who live within the community. One respondent reported, “a concern every time I take students overseas is making sure the students and the community get as much as they need from each other.”

**Resources Abroad.** While many of the challenges reported by survey respondents pertain to their home institutions, challenges were also noted with regard to infrastructure in global settings. Some respondents noted the myriad challenges of access to power, running water, and connectivity. For example, one participant reported, “in low resource settings country, infrastructure is a major problem as well as internet connection in order to access quality Global Health contents from developed countries.”

### **Discussion**

As an academic field, Global Health is relatively new. Emerging from a background of public and international health, Global Health addresses transnational determinants of health on

both the individual and population-level, and includes collaboration between different disciplines. This paper examined the challenges faced by educators teaching Global Health courses on the undergraduate level. Seventy-six respondents replied to a mixed-methods survey, providing global perspectives on teaching undergraduates about Global Health. The primary challenges faced by Global Health educators on the undergraduate level include issues revolving around students, curriculum development, funding, institutional support, reciprocity in field placement communities, and resources. Many respondents reported a greater student demand for Global Health courses than there are faculty to teach, and yet, these instructors do not feel support from other faculty members. Others felt that their institution does not place sufficient importance on teaching Global Health, compared to other subject areas. Some respondents noted that it is difficult to create a lecture hall-style Global Health curriculum that is appropriate to effectively address current topics in the field. Regarding field experiences, some respondents were concerned about ensuring that both the community and the students gain from field experiences.

Previous articles on the topic of Global Health emphasize the importance of setting specific goals and competencies before beginning curriculum development for an undergraduate Global Health program. Additionally, previous articles discuss the importance of foundational skills in Global Health courses including critical thinking, humility, ethics, communication, and international experience. In Drain et al.'s 2017 article, the authors conducted a systematic review of eight undergraduate Global Health programs by reviewing school websites, the Consortium of Universities for Global Health (CUGH) database, and discussions with key leaders in Global Health education.

This project received 76 responses to a mixed-methods survey, providing a broader understanding of the current state of Global Health education across many universities/colleges globally. This article furthers the findings of the importance of a multidisciplinary approach to Global Health courses, understanding ethical challenges in resource-limited settings, and recognizing contextual factors of health. One unusual finding of the study was a lack of concern regarding overlap between undergraduate and graduate Global Health programs, as based on previous research this seemed an apparent issue.

Future research should address the future academic and professional pursuits of undergraduate Global Health students, to further fine-tune undergraduate Global Health curriculum development. Conducting this research with students themselves would provide an interesting, new perspective on the topic of undergraduate Global Health courses. Additionally, identifying a specific set of competencies is important in creating a common curriculum for undergraduate Global Health programs. The competencies should be reviewed and validated by faculty from multiple disciplines. In addition to competencies, future research should address necessary foundational courses, to ensure that students taking Global Health courses have a solid introduction and are better prepared for handling courses requiring more complex discussion. Further research should address which readings, if any, should be required across undergraduate Global Health programs. Furthermore, there should be discussion on building a framework of expectations for field experiences, pre-departure requirements, and post-travel reflection. Further research should look into which department, Global Health should fall under, and which schools or departments should collaborate regarding faculty instructors and curriculum development.

Limitations include some questions in the mixed-methods survey that were not worded clearly, as some respondents' answers did not specifically address the question or selected "other" and gave redundant answers to the options listed.

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## Appendix A

**Survey questions**

Q2: Demographics

Q3: What best describes your institution?

Q4: What best describes the undergraduate Global Health program at your school?

Q5: What are the names of courses you teach related to Global Health?

Q6: What schools is your Global Health course/program housed within?

Q7: Which department(s) is your Global Health course/program housed within?

Q9: How many years has the Global Health course been offered:

Q10: How many students (maximum) are enrolled in the course (approximately)?

Q11: Which year are the undergraduate students who register for your course?

Q12: Are there any pre-requisites required for your course?

Q13: Please specify the pre-requisite for your course:

Q14: Select all themes that are formally addressed in your course

Q15: If you require a textbook for your course, please list the textbook(s) you use:

Q16: Is your course designed to meet a targeted set of goals as set by an outside institution such as ASPPH or CUGH?

Q17: If you are utilizing a targeted set of goals or competencies for your course, which are you utilizing?

Q18: Are the majority of your students who take your course pre-health (i.e., planning to pursue a health-related graduate/professional program)?

Q19: Do you require or encourage a field experience in your Global Health course?

Q20: If you encourage or require a field experience, how is it structured?

Q21: If students do field experiences, do the field experiences involve hands-on patient care in hospitals or clinics?

Q22: Are you concerned with the ethics and safety (of patients and/or students) or actions taken by undergraduate students during field experiences in Global Health?

Q23: Is there any instruction/pre-departure training to prepare students for ethical/safe field experience/experiential learning?

Q24: If there is a pre-departure training, is it required?

Q25: How long is the instruction/preparation for ethical/safe field experiences/experiential learning?

Q26: Are you concerned with overlap between your undergraduate program in Global Health and graduate programs in Global Health or other professions?

Q27: Do you believe you are preparing students for...

Q28: Do you use critical reflection in your Global Health course:

Q29: What other offices (if any) do you collaborate with on campus?

Q30: Please provide a copy of your syllabus, which will be blinded.

Q31: To what degree do you think you have institutional support for your Global Health course(s)?

Q32: What are the biggest challenges you face with your Global Health course(s)?

Q33: Emails for follow up

Q34: How did you hear about this survey?