

# Enhancing student professional and personal development: Best practices for student engagement from over a decade of hosting Global Health Case Competitions

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## Abstract

An interdisciplinary and innovative Global Health Case Competition (GHCC) has been hosted since 2011 by the Vanderbilt Institute for Global Health. The GHCC invites undergraduate, graduate, and professional students across Vanderbilt University to tackle global health challenges as a way to build skills in global health project development and professional competencies. Since its launch, the GHCC has prioritized student leadership by engaging over 120 student leaders and 200 student volunteers who design and manage every facet of the competition. From conceptualization to presentation, students, along with university mentors, play a vital role in crafting an intentional GHCC that provides participants with a global health experience that enhances professional skills in critical thinking, creativity, and collaboration. Case competitions have been growing in popularity, particularly in consulting and finance, but an evidence-based framework for planning and evaluating these competitions, especially in global health, has not been established. Through surveying student participants, volunteers, and leaders, we have identified five best practices: student ownership, partnership with an external global health organization, interdisciplinary and interprofessional approach, institutional support, and mentorship. Analyses of these principles on student impact have suggested a direct association with students' overall experience as well as positive growth in their personal and professional development. These principles can inform similar competitions at other universities and could catalyze experiential learning opportunities on real-life global health issues.

## Introduction

Since 2011, the Vanderbilt Institute for Global Health's student organization has hosted an annual Global Health Case Competition (GHCC). This week-long extracurricular event challenges interdisciplinary teams of undergraduate, graduate, and professional students to think critically and apply their theoretical knowledge to a real-world global health-related scenario or "case." Students analyze the issue critically to rapidly develop a comprehensive, innovative, and sustainable solution that they present to judges in a public forum.

Student engagement encompasses elements of behavior, cognition, and emotion (Fredricks et al., 2004; Kahu, 2013). Furthermore, student engagement in health professions education includes career-related active, collaborative learning; students engaging as partners in their education; community and psychological safety; and technology-enhanced learning (Kassab et al., 2023). Such engagement, including experiential learning, has been cited as an underlying factor in student achievement (Kong, 2021). Student engagement and student success are often used to assess overall institutional quality (Kuh, 2009). Case competitions have become a tool to help measure such quality (Burke et al., 2013). By boosting student self-efficacy, participation in case competitions increases oral and written communication skills, critical thinking, and understanding of multiple perspectives (Carter et al., 2019). Application of classroom learning to practical problem-based scenarios, like the cases offered by the GHCC, has also been shown to cultivate a career-ready workforce (Jackson et al., 2016). These outcomes help students improve their self-confidence, broaden their educational horizons, and be prepared to engage with external audiences.

Case competitions, especially those in global health, have become increasingly common, but information, best practices, and evaluations of these competitions are scarce (Ali et al., 2011; Lockeman et al., 2022; Plakhotnik et al., 2020). This case study manuscript contributes to the literature by providing insights from student feedback and our experiences hosting a global health case competition for almost fifteen years.

Annually, we have collected post-competition feedback from participants and debriefed with student leaders and volunteers to better understand the strengths and challenges of the competition. Feedback revealed that almost all students would recommend participating in the GHCC to a friend, and they were satisfied/very satisfied with the case topic, event organization, and team collaboration. Participants reported that they developed a myriad of professional competencies, including teamwork and interdisciplinary communication. Some participants even reported that the GHCC case topic was the primary influencer in changing majors or post-graduation plans.

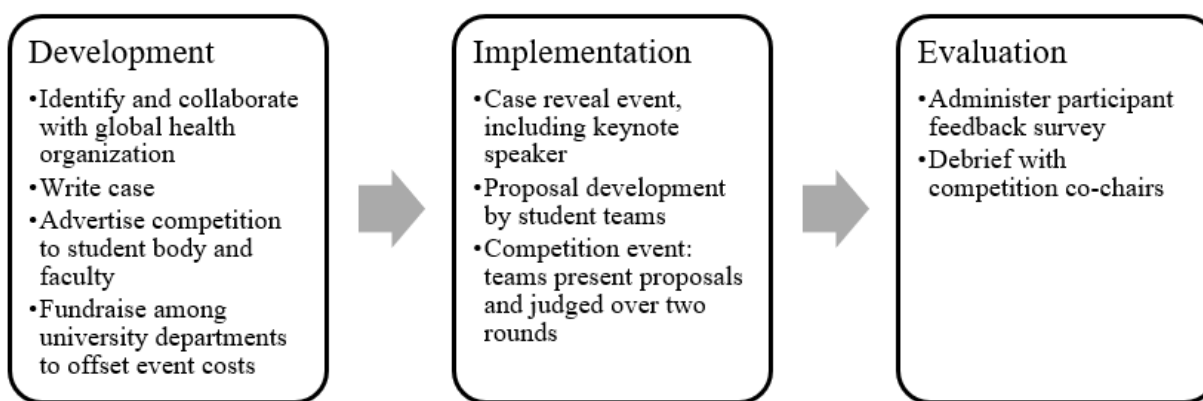
Drawing from the literature, our experiences over almost fifteen years, and feedback from competition participants, we have identified five best practices that can inform the development of similar competitions:

1. Student Ownership and Leadership
2. Partnership with an External Global Health Organization
3. Interdisciplinary & Interprofessional Approach
4. Institutional Support
5. Mentorship

## **Program Description + Evaluation Methods**

Student leaders from a broad range of undergraduate majors and graduate programs across the university organize all aspects of the annual GHCC over eight months (Figure 1). In

planning the competition, student leaders liaise with an external global health organization and field experts to create the case scenario based on a need identified by the organization. Leaders receive mentoring from campus staff and faculty in hosting the event. During the competition, interdisciplinary teams receive the case and have a week to research the issue and develop a proposal. Teams have the opportunity for consulting appointments with an organizational representative and campus centers for professional development. On competition day, teams present their proposal to judges from the organization and university faculty, and judges select a winner after two rounds of judging. Competition day also includes a keynote speaker from the organization. To annually evaluate the GHCC, participants complete an evaluation survey, and student leaders debrief with their advisor. The evaluation study received ethical approval from the Vanderbilt Institutional Review Board (#210689).



**Figure 1: Timeline of case competition development, implementation, and evaluation**

### Best Practices

A university-wide GHCC serves to represent the global health analog of hands-on experiential learning that is found in training other science, technology, engineering, and mathematics (STEM) and non-STEM career professions. Through intentional design, we believe that students and campus institutions can benefit from hosting a global health case competition. Based on student survey feedback and our experiences in hosting, we have identified five best practices for creating an impactful and engaging competition (Figure 2).

In reviewing descriptive results from survey participants, we found high satisfaction with team collaboration, event organization, and the relevance of the case topic in the GHCC. Notably, satisfaction with team collaboration, which includes working with students across fields, and organization, which provides for student-led and institutionally-supported initiatives, was associated with increased odds of experiencing a personal and professional impact compared to those who were unsatisfied. These findings underscore the importance of 1) an interdisciplinary approach as a best practice, as collaboration across fields enhanced participants' competition experience and built professional competencies. The findings also highlight the pillars of 2) student leadership and 3) institutional support. The

organization of the GHCC, which is driven by student-led leadership, is complemented by institutional support, ensuring that the event is impactful to students and well-structured.

Findings revealed that the case topic impacted some participants' career decisions. Topics are significantly enhanced through 4) partnerships with international organizations that work directly in the field, providing real-world context, and 5) mentorship for students during the competition. This collaboration enriches the case scenarios and offers participants insights from global health practitioners and researchers.

We utilized survey data to inform our model and best practices directly, highlighting the critical elements of student ownership, interdisciplinary collaboration, institutional support, and mentorship (Figure 2). These components emerged as essential best practices that contribute to the success and impact of the GHCC, as evidenced by participant satisfaction and skill development.



**Figure 2: Five best practices for global health case competitions**

### *1. Student Ownership and Leadership*

As a student-led event, participants, leaders, and volunteers are ingrained in the fabric of the competition. Student leaders lead every facet of the competition and hone professional skills as they develop and implement the event, write the case, market the competition, recruit participants and volunteers, coordinate judges, and evaluate the event. Before the school year begins, student leaders connect with an international organization focused on

global health, such as a clinic in Kenya or a hospital in Guyana, and they collaborate to write a case that benefits the organization while being challenging and insightful for students. During the fall semester, students advertise the competition among the student body to encourage participation from all programs across campus and fundraise to cover competition expenses. In the spring semester, students coordinate all logistics to host a competition for over 100 participants and coordinate travel for invited international guests from the partner organization.

Coordinating the GHCC helps student leaders develop creative and critical thinking skills through case development, advertising, leading peers, and teamwork. They learn to lead and communicate with peers in high-pressure situations and to collaborate with professionals from various disciplines and countries. Through engaging with the partner organization, they gain insight and perspective into a global health issue and organizational considerations that are important when working in global health. Student ownership throughout the competition allows students to engage actively in learning, tackle pressing global health issues, and develop professional skills that would otherwise be marginally addressed if organized by a non-student group.

## 2. *Partnership with an External Global Health Organization*

Over the years, we have found that competitions that have been planned in collaboration with a partner global health organization are more successful and engaging for students. To have sustainable engagements with organizations, students are encouraged to leverage long-standing connections with university partners so as not to engage in “parachute science” (de Vos, 2022) or unethical, misaligned, or unbalanced partnerships (Eichbaum et al., 2021). In preparing the case, student leaders meet with organizational leaders to select a pressing challenge in which the creation of proposed solutions by students could benefit the organization and its community. In these discussions, student leaders gather information about the issue and learn more about the local context. At the competition, organizational members serve on the judging panel and receive all proposal presentations to use in their work.

Organizations benefit from the plethora of innovative, researched ideas presented to address their challenge, and they have later incorporated these ideas into their initiatives. For example, in 2018, leaders partnered with emergency medicine physicians at the public hospital in Guyana’s capital to write a case on developing a transportation network for emergency services throughout rural Guyana. After the competition, the physicians used proposals presented in the competition to develop a white paper and plan for creating emergency service transport. The 2019 and 2023 competitions partnered with a non-governmental organization that provides healthcare services in rural Kenya. Project proposals have informed the clinic’s expansion of non-communicable disease services and plans to address water quality issues in the community.

Student leaders and participants also benefit from collaboration with organizations. In partnering, leaders develop cross-cultural humility and communication skills and learn how to collaborate with an organization. Additionally, the case topic, the keynote speaker, and competition judges generally come from the organization, which helps in planning these essential competition elements.

Competition participants benefit in many ways from close access to the organization. The case should be appropriately complex and grounded in real-life challenges to resemble issues that students might encounter working in global health, which might seem abstract to university students who do not have direct exposure to the field. We found that collaboration with a global health organization helps competition participants contextualize, relate to, and become enthusiastic about the case. Moreover, in alignment with decolonizing approaches to global health education, partnerships with global health organizations encourage participants to think critically through a lens that emphasizes local context, elevates local knowledge and expertise, and is mutually beneficial (Eichbaum et al., 2021). We believe that such collaboration is essential to student learning about global health partnerships, brings the case to life, and contributes to students' reported satisfaction with the GHCC. These elements enhance student engagement and contribute to active, experiential learning.

### *3. Interdisciplinary and Interprofessional Approach*

Interprofessional education is a necessary component in training the global health workforce and has been used by the World Health Organization to improve workers' ability to provide high-quality care (Herath et al., 2017). Global health challenges are complex and require multiple professional fields to collaborate in developing comprehensive solutions. As global health problems become more expansive, the need for team-based interdisciplinary and interprofessional approaches becomes more vital (Smith & Ram, 2020). Global health education programs predominantly engage medical students, residents, and physicians (Liu et al., 2015). The GHCC broadens this scope by introducing interdisciplinary and interprofessional global health education at the undergraduate level, fostering early exposure and sustained interest in the field.

As students develop the case in partnership with the global health organization, perspectives from multiple professions and fields are considered and incorporated. The case challenges students to consider all sides of the issue and address multiple sectors. Participants must use a multidisciplinary lens to solve problems, which prompts innovative and robust solutions (McKune et al., 2016).

GHCC leaders have been intentional about the composition of teams. To facilitate considering diverse approaches and to mirror real-world professional work teams, student teams must include at least three majors or programs, and are encouraged to have participants who represent various training levels and cultural backgrounds. This focus on diversity and interdisciplinary work is essential to competition and successful teams. Within

these teams, students learn to communicate and collaborate across sectors and become more prepared for the workforce (Carter et al., 2019). Working in interprofessional teams can expand one's perspectives and help one to think more creatively. In their book, *Transforming Global Health*, Smith & Ram (2020) argue that global health equity can be achieved by challenging college students across majors to think broadly and creatively, demonstrating the importance of interdisciplinary collaboration.

#### *4. Institutional Support*

In addition to collaboration from a global health organization, student leaders are supported by the university institution in several ways. The institution provides funding, resources, space, and other logistical support that help student leaders create a robust environment for the competition. We recommend that departments across an institution invest in and support the competition. Student leaders contact department leaders to request in-kind donations such as food, promotional materials for participants, prizes for the top three teams, and thank-you gifts for judges. These contributions create a welcoming environment for participants and judges.

Student leaders strategically collaborate with campus centers and institutes to co-host guests from the global health organization. As a co-host, the center helps GHCC cover travel costs and often invites the guests to speak in other lectures or conferences, creating additional benefits for the guests and the center. For example, in conjunction with the 2017 competition, the university's Center for Latin American and Caribbean Studies co-hosted guest judges and keynote speakers from Haiti and created a campus-wide "Haiti Week" with events utilizing these guests as speakers.

Leaders also engage institutional resources, such as Career Services, to provide professional development for student teams, including guidance to develop and deliver an effective presentation. Faculty and staff from across the institution often serve on the diverse, interprofessional judging panel. These individuals contribute time to the competition outside of work hours. Institutional support contributes to a smooth and impactful competition experience for students, and hence, we believe that, indirectly, institutional support contributed to students' reported strong satisfaction with the GHCC and their desire to recommend it to a friend.

#### *5. Mentorship*

Mentorship is an important element of the GHCC in helping guide leaders, encouraging reflection, and promoting psychological-safe community. Leaders meet regularly with faculty and staff advisors who have been guiding competition leaders for years. These mentors have been selected to represent various fields and backgrounds. Leaning on decades of experience, the mentors provide guidance in managing programs, building teams, and navigating challenging situations. This mentorship exposes students to project management tools and strategies that global health professionals use, which helps

students effectively organize the large, week-long event. Additionally, the close mentor-mentee relationship models effective team collaboration, which leaders pass on to their committee teams and instill in the GHCC environment.

Mentors also help students feel more confident in their decisions, increase their sense of professional competence, and strengthen skill development (Ocobock et al., 2022). Through mentorship, student leaders are encouraged to reflect on their experiences and make improvements, essential elements of experiential learning (Kolb & Kolb, 2005). This reflection helps students to further engage, moving from emotional responses to learning and knowledge (Clancy et al., 2021). Mentorship has often served as an active learning tool on the nuances of global health work and led to opportunities for students to assist on other projects.

## **Conclusion**

We have identified five best practices that programs could use to host an impactful and engaging global health case competition. Student ownership and leadership provides opportunities for professional growth, especially related to teamwork and interdisciplinary communication. Student leaders are guided by mentors, who help hone these skills and provide feedback as students implement creative, new elements in the GHCC. Institutional support helps leaders actualize their plans and engage students from many disciplines. Interdisciplinary collaboration in student leadership and participant teams, as well as presentation feedback from judges across disciplines, mimics true global health work and collaboration. Finally, the competition would not be possible nor relevant without support and partnership from a global health organization, which provides grounding for the case and exposure to the global health field and cultural contexts. Several organizations have utilized proposals from the competition to inform and innovate their programs.

The GHCC is a unique extracurricular activity that provides student leaders and participants with experiential learning opportunities and engagement, which provides authentic learning and professional competency development. Active engagement from participants and facilitators are essential elements of experiential learning (Clancy et al., 2021). Throughout the GHCC, mentors help student leaders transform emotional responses to learning and build professional skills and competencies through this experiential learning experience. Case competitions can provide a myriad of benefits to students and partner organizations. The best practices that we have presented support the effective development and implementation of these competitions.

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