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RESEARCH ARTICLE

Global health education in U.K. universities

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ABSTRACT

Background: The coronavirus disease 2019 (COVID-19) pandemic has led to a paradigm shift in global health, casting a previously niche academic discipline into a headline dominating field of research. However, accurate information on the delivery of global health education (GHE) at a university level is lacking. This study aims to assess current GHE practices in U.K. universities, by identifying the availability of dedicated global health qualifications, as well as the breadth of inclusion of GHE topics across university course content.

Methods: Universities selected were the top 25 recipients of MRC funding in 2015–2016, as well as universities who were included in previous iterations of the “Global Health League Table”. We used the Consortium of Universities for Global Health “GHE Competencies Toolkit” to identify the presence of global health content across university global health and other course offerings. Universities were additionally judged on opportunities available in global health and on the presence of sustainable partnerships.

Results: Our results showed that 20 universities (74%) offer a post-graduate global health related course, with 9 (33%) offering an undergraduate global health related course. 13 (48%) were identified as centers of global health excellence. Just 12 (44%) universities had registered sustainable partnerships with Tropical Health and Education Trust. The London School of Hygiene and Tropical Medicine was identified as the top deliverer of GHE, with the Universities of Leicester and the Universities of Exeter joint bottom. We were unable to standardize quality assessments in this iteration of the project, but the release of student feedback to future assessors would help to improve the reliability of this study methodology. Additionally, much of our data was based on information available online, and thus some aspects of degree courses not published publicly may not have been accounted for in our scoring.

Conclusion: Those institutions wishing to improve their delivery of GHE should consider the establishment of a postgraduate or undergraduate degree course. Breadth of global health content across curricular was a major discriminating factor between institutions, and we would advise universities to consider including more global health topics across their curricular - especially in light of the intersectional impacts of the COVID-19 pandemic.

1. Introduction

The coronavirus disease 2019 (COVID-19) pandemic has caused a paradigm shift in global health, casting a previously niche academic discipline into a headline dominating field of research. Never before has it been as vital for graduates to understand how global health issues can have an impact far beyond its traditional disciplinary boundaries. ¹ Many universities have already moved towards the “interna-

tionalization” of their curricula, with the aim to develop their students into “global citizens”. ² Global citizenship is described as an “awareness of and commitment to societal justice... based on principles of equity, respect and sharing”. ³ It is vital that institutions combine this with a basic level of health education across curricular to prepare students to succeed in an increasingly interconnected world. ²

However, accurate and up to date information on the delivery of global health education (GHE) on a university-wide level is lacking. ⁴

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Most previous reviews of U.K. GHE have focused on its role in medical education, with medical students receiving little mandatory teaching in global health despite it being part of their learning outcomes as outlined by the General Medical Council.^{5–6} Several studies have highlighted the burgeoning presence of specific global health courses across university catalogues,⁷ but none have looked at the presence or absence of global health competencies within non-global health courses.

This study aims to assess current GHE practices in UK universities, by identifying the availability of dedicated global health qualifications, and the breadth of inclusion of GHE topics across other university course content. It also aims to assess a range of other factors that contribute to the institutional provision of effective GHE and encouragement of global citizenship in their student population.

1.1. Objectives

The objectives of this study were: firstly, to analyze current GHE practices in U.K. universities in areas of access to GHE, including: (1) identify availability of postgraduate and undergraduate global health qualifications; (2) assess breadth of GHE across non-global health degree courses; (3) measure the existence of sustainable global health partnerships with overseas institutions. Secondly, to create a baseline for further follow-up to track improvement in the GHE provided by U.K. universities.

1.2. Definitions

1.2.1. Global health

Global health is an area of education, research and practice that places a priority on improving health and achieving equity in health for all people worldwide.⁸

1.2.2. GHE

Any programme that primarily aims to inform, engage and inspire students to improve health equity, reduce health disparities and to promote health for all. In addition to this definition, a list of criteria put together by the Consortium of Universities for Global Health was used to determine whether the courses being analyzed was an effective global health programme.

1.2.3. Global health center of excellence

An institution or department which specifically aims to promote global health research, education and leaders.

1.2.4. Sustainable global health partnerships

Long term partnerships that focus on shared learning, ownership, development and benefits to improve health and health services between institutions from different countries.⁹ This paper looks at those registered with THET, in which all projects are “sustained beyond the lifetime of the project, including other government and non-governmental bodies you intend to approach or collaborate with in the host country”.¹⁰

2. Methodology

2.1. Overview

This research was broken into three key areas of assessment: (1) access to GHE; (2) opportunities available in global health; (3) established sustainable partnerships. Each section was further divided into several sub-categories. Data was collected from publicly available information, mostly through online searches. This project was initially started as part of the second iteration of the Universities Allied for Essential Medicines/Students for global health supported “Global Health League Table”.¹¹

2.2. Selection of Universities

We selected the top 25 Medical Research Council funded universities in 2015–2016 (the most current metric available at the start of the project) as well as those who were excluded from the top 25 but were included in previous versions of the “Global Health League Table”.¹² The 27 universities included were: University of Oxford, University of Cambridge, University College London, The University of Edinburgh, The University of Manchester, Imperial College London, King’s College London, University of Glasgow, Queen Mary University of London, University of Nottingham, Cardiff University, University of Birmingham, The University of Sheffield, Newcastle University, University of Liverpool, London School of Hygiene and Tropical Medicine, University of Leeds, University of Bristol, University of Dundee, University of Southampton, University of Leicester, Liverpool School of Tropical Medicine (new to this ranking), University of Exeter (new to this ranking), University of Sussex, The University of Warwick, University of Reading (included in previous ranking), University of Aberdeen (included in previous ranking).

2.3. Identifying “GHE”

There is no accepted formal definition of what constitutes GHE. We used the Consortium of Universities for Global Health (CUGH) “GHE Competencies Toolkit” to aid in the identification of global health content in the courses that were reviewed. CUGH is an institution formed in 2008 “to define the field and discipline of global health”. They have produced a list of 82 global health competencies divided into 11 domains which encompasses the breadth and depth of GHE.¹³

The toolkit further divides these competencies into two distinct levels, which cover: (1) Global citizen level—“the competency set required of all post-secondary students pursuing any field with bearing on global health”. The competencies found at this level are generally more fundamental, basic and knowledge orientated, and are only found in eight of the 11 domains. We have correlated this to the Undergraduate level of GHE. (2) Basic operational level—“the competency set required of students aiming to spend a moderate amount of time, but not necessarily an entire career, working in the field of global health”. The competencies found at this level are more program and practical skills orientated, and are found in all 11 of the CUGH domains. We have correlated this to the master’s level of GHE (Table 1).

While each of the 11 domains in the “Global Health Competencies Toolkit” comprises a multitude of learning competencies, we considered a domain to be included if just one of its competencies was explicitly mentioned in course material, accessible online.

2.4. Access to GHE

Question 1A Does the university have a postgraduate course on global health, or otherwise named postgraduate taught course, which contains a significant portion of content relating to global health (excluding PhD programs) in academic year 2018–2019?

A “significant” portion of global health was determined to be any postgraduate course which included competencies covering 8 of the 11 domains of the CUGH global health competencies “basic operational level”.

Courses were identified through an online search of universities by two researchers independently, with the postgraduate course covering the highest number of domains chosen as the primary course. Where no course included ≥ 8 domains then no points were awarded.

Question 1B Does the university have an undergraduate course on global health, or otherwise named undergraduate taught course, which contains a significant portion of content relating to global health (excluding PhD programmes) in academic year 2018–2019?

Table 1
CUGH global citizen level & basic operational level domains.¹³

Domains	Global citizen level ^a	Basic operational level ^b
Global burden of disease	Yes	Yes
Globalization of health and healthcare	Yes	Yes
Social and environmental determinants of health	Yes	Yes
Collaboration, partnering and communication	Yes	Yes
Ethics	Yes	Yes
Professional practice	Yes	Yes
Health equity and social justice	Yes	Yes
Sociocultural and political awareness	Yes	Yes
Capacity strengthening	-	Yes
Program management	-	Yes
Strategic analysis	-	Yes

^aCorrelated to the undergraduate level of GHE (8 domains); ^bCorrelated to the master’s level of GHE (11 domains); -: Not available.

A “significant” portion of global health was determined to be any course which included competencies covering 6 the 8 domains of the CUGH “global citizen level”.

Courses were identified through an online search of universities by two researchers independently, with the postgraduate course covering the highest number of domains chosen as the primary course. Where no course included ≥ 6 domains then no points were awarded.

Question 2 How many courses does each university offer with a significant amount of global health in the curriculum in academic year 2018–2019?

In order to identify the breadth of courses which included an element of GHE, two researchers independently assessed each university’s course catalogue available online. A course was considered to contain an “element of GHE” if it included learning competencies across 25% of domains at the “global citizen level”. This meant that ≥ 2 domains were necessary to be covered in order to be included.

Many Universities included a single course with several different streams. In these cases only one variation of the course was assessed for inclusion.

Question 3 Does the university have a global health center of excellence?

The universities were identified as “center of excellence” if they had an institute, department, faculty, school, center, or similar institution within the university that specifically aims to promote global health research, education and leaders. Research groups were excluded.

Global health centers of excellence were identified through an online search of universities by two researchers independently, and any discrepancy resolved through discussion.

2.5. Opportunities available in global health

Question 4 Has at least one professional, university run event been held in the last academic year (2018–2019) on a global health topic?

Opportunities were assessed by the availability of university-run global health events in the academic year of 2018–2019. University run global health events were identified through an online search of Universities by two researchers independently, and any discrepancy resolved through discussion.

2.6. Established sustainable partnerships

Question 5 Is the university formally involved in a global health partnership with one or more overseas institutions in 2017–2018?

The Tropical Health and Education Trust (THET) Health Partnership Scheme database was used to determine which universities had a registered overseas partner, institute or hospital.¹⁴ The Health Partnership Scheme is a U.K. government initiative launched in 2010. This supported partnerships between U.K. institutions and overseas partners, mainly in

lower- and middle-income countries (LMICs), and placed an emphasis on improving health equity and prioritizing sustainability.

Sustainable partnerships focus on shared learning, ownership, development and benefits to improve health and health services between institutions from different countries.⁹ THET defines sustainable partnerships as those “sustained beyond the lifetime of the project” through “involvement of ministries of health”, “embedding into existing systems” and through “training of trainers”.¹⁰ Universities were awarded a point if they had a documented partnership on the THET website at the time of data collection.

2.7. Scoring criteria

2.7.1. All questions (excluding Question 2)

Criteria	Points awarded before multiplier
Yes	1
No	0

2.7.2. Question 2

Criteria	Points awarded before multiplier
0–1	0
2–3	0.5
4–5	1
6–7	1.5
8–9	2
10–11	2.5
12–13	3
14–15	3.5
≥16	4

2.8. Weighting and ranking

Prior to data collection, it was decided that availability of courses and breadth of courses would be given higher weighting in the final data analysis, as these metrics were reliable measures of GHE delivery at U.K. universities.

Universities were ranked in point order, in order for the results of this study to be easily visualized and better highlight areas of strength and deficit. In addition, it has been shown that organizations are more receptive to results when placed in rank order, as demonstrated by common comparison tables in the higher education field such as the World Higher Education Rankings.¹⁵⁻¹⁶

In cases of a tied result, the university with the highest breadth% score was ranked higher. Total course number was identified using data available publicly from the “complete university guide”.¹⁷

$$\text{Breadth score (\%)} = \frac{\text{Total identified global health courses}}{\text{Total number courses offered}} \times 100\%$$

3. Results

3.1. Raw data

Table 2 showed that 20 universities (74%) offer a post-graduate global health related course, with 9 (33%) offering an undergraduate global health related course. 13 (48%) were identified as centers of global health excellence. Just 12 (44%) universities had registered sustainable partnerships with THET.

Table 3 showed that 20 universities (74%) offer a post-graduate global health related course, with 9 (33%) offering an undergraduate global health related course. 13 (48%) were identified as centers of global health excellence. Just 12 (44%) universities had registered sustainable partnerships with THET.

3.2. Points and grading (multiplier applied and tie-broken, see Table 4)

As calculated in Fig. 1, The London School of Hygiene and Tropical Medicine was identified as the top deliverer of GHE scoring 13 points, with the Universities of Leicester and Universities of Exeter joint bottom with one point each and a 0 tie-breaking breadth score. The average number of points was 5.85, with a range of scores between 1 and 13 points.

4. Discussion

Global health has never been more important. Its centrality and intersectional nature have been emphasized by the COVID-19 pandemic, which at the time of writing has claimed over 100 000 lives globally

and caused untold economic destruction. In the wake of our disrupted society, in our new reality of empty classrooms and furloughed workers, it has never been more important for citizens to understand their place in an interconnected world, and for these learning outcomes to be achieved by everyone graduating at a secondary school level. At a degree level, these competencies must be built on, and a global, systems-based approach to education made a priority, regardless of subject. Our assessment framework, rooted in CUGH competencies, looked to see if Universities were educating students to the “global citizen level”, and those on more specialized courses to the “basic operational level”.

Our results provide some grounds for optimism. A large majority of U.K. universities (20/27) offer some form of postgraduate global health degree, with some (9/27) offering a dedicated undergraduate qualification. The mean overall score for Universities was 5.81, out of a maximum attainable score of 15. No university achieved the maximum points, although it must be noted that this was unattainable for postgraduate institutes due to our scoring criteria including undergraduate course offerings. Unsurprisingly the global health-orientated institution London School of Hygiene & Tropical Medicine topped the table.

Of interest, non-specialist institutions such as the University of Edinburgh and University College London both performed well and, along with several other institutions, pushed the Liverpool School of Tropical Medicine (LSTM) into a middle portion of the table. This was in part due to their delivery of specialist Global Health undergraduate courses, which LSTM do not offer, and thus scoring well for breadth of global health content across non-dedicated courses. The presence of specified “Centers of Excellence”, such as Queen Mary’s Global Public Health Unit & King’s College London’s Center for Global Health and Health Partnerships no doubt helped cement their place in the ranking.

Table 2
Access to GHE.

University	Question 1B ^b	Question 1A ^a	Question 2 ^c
University of Oxford	–	MSc Global Health Science and Epidemiology	2
University of Cambridge	–	–	1
University College London	Intercalating (iBSc) Global Health	Global Health and Development MSc	10
The University of Edinburgh	Global Health Policy (BMedSci Hons)	Global Health and Infectious Disease MSc	11
The University of Manchester	BSc Global Health (intercalated)	MSc Global Health	9
Imperial College London	BSc Global Health	–	4
King’s College London	Global Health & Social Medicine BSc	Masters in Global Health	8
University of Glasgow	iBSc Global Health	Masters in Global Health	7
Queen Mary University of London	BSc Global Health	Migration, Culture and Global Health MSc	11
University of Nottingham	–	Master of Public Health (Global Health)	1
Cardiff University	–	Master’s in Public Health	1
University of Birmingham	–	Master’s in Public Health (Global Health)	2
The University of Sheffield	Health and Human Sciences BMedSci	Europubhealth: European Masters Programme in Public Health	3
Newcastle University	–	Masters of Global Public Health	3
University of Liverpool	–	Master’s in Public Health	2
London School of Hygiene and Tropical Medicine	–	MSc Tropical Medicine and International Health	16
University of Leeds	–	International Health MSc	8
University of Bristol	iBSc Global Health	MSc Public Health	2
University of Dundee	–	–	3
University of Southampton	–	Global Health MSc	4
University of Leicester	–	–	0
Liverpool School of Tropical Medicine	–	International Public Health	6
University of Exeter	–	–	0
University of Sussex	–	Global Health MSc (BSMS)	6
The University of Warwick	–	Public Health MPH	3
University of Reading	–	–	1
University of Aberdeen	–	Global Health and Management MSc	3

^aThis included competencies covering 8 of the 11 domains of the CUGH global health competencies “basic operational level”; ^bThis included competencies covering 6 the 8 domains of the CUGH global health competencies “global citizen level”; ^cThis included competencies across 25% of domains at the “global citizen level”; –: Not available.

Table 3
Centers of excellence, opportunities available in global health and sustainable partnerships.

University	Question 3	Question 4	Question 5
University of Oxford	No	Oxford Global Health and Bioethics International Conference	Africa Clubfoot Training
University of Cambridge	Yes	–	–
University College London	Yes	Partner Organization for Women Leaders in Global Health 2018?	Partner Project: Training of Radiotherapy Equipment Maintenance Personnel in Ghana
The University of Edinburgh	Yes	Global Health Symposium and Annual Lecture 2018	Reducing Newborn Mortality with Staff Training, Guidelines and Respiratory and Nutritional Support in Rwandan Hospitals
The University of Manchester	Yes	International Festival of Public Health	Lugina Africa Midwives Research Network (LAMRN), The Change Exchange: Using Behavioral Science to Strengthen Health Partnerships
Imperial College London	Yes	World Innovation Summit for Health 2018	Strengthening and Integrating Palliative Care into National Health Systems Through a Public Health Primary Care Approach
King's College London	Yes	–	King's Sierra Leone Partnership Health Education Strengthening Project
University of Glasgow	No	–	–
Queen Mary University of London	Yes	Queen Mary University of London (QMUL) 1st International Blizard/QMUL Tuberculosis Symposium	–
University of Nottingham	No	–	–
Cardiff University	No	–	–
University of Birmingham	No	–	–
The University of Sheffield	No	Global Mental Health and Therapeutic Assemblages: Concepts, Controversy and Necessary Tensions	Strengthening Systems Necessary for Improving Patients' Safety and Quality of Health Care in Tertiary Hospitals in Northern Nigeria
Newcastle University	No	Global Challenges Summit 2018: Working Together for International Development	–
University of Liverpool	Yes	Vector-Borne Diseases in the U.K. Biennial Conference	–
London School of Hygiene and Tropical Medicine	Yes	Women Leaders in Global Health 2018	Educator Development as a Key to Strengthening Health Partnerships
University of Leeds	Yes	Postcolonial Health: Global Perspectives on the Medical Humanities	–
University of Bristol	No	Building Global Partnerships for Global Challenges Symposium	–
University of Dundee	No	–	–
University of Southampton	Yes	Southampton Global Health Conference: A Journey Through War	Lighthouse for Christ Eye Center, Mombasa
University of Leicester	No	–	Gondar University Hospital
Liverpool School of Tropical Medicine	Yes	Fifth Global Symposium of Health Systems Research	–
University of Exeter	No	–	Ethiopia Medical Education Partnerships Project
University of Sussex	Yes	Progress, Power & Global Health: Ideas to Inspire Change	The Implementation of the First Pediatric Nursing Course in Zambia
The University of Warwick	No	–	–
University of Reading	No	Global Health Humanities Workshop 2019	–
University of Aberdeen	No	–	–

–: Not available.

At the bottom of the ranking clustered two universities, University of Leicester and University of Exeter who, by our criteria, lacked any postgraduate or undergraduate offering in Global Health. While some of these institutions did offer public health masters qualifications, they did not adequately fulfill the learning competencies outlined by the CUGH “basic operational level” and were therefore not included. In addition, they scored poorly for breadth, indicating that global health subject matter was lacking throughout their course catalogue. These universities would be well served by investing in their global health educational output, specifically by the establishment of a degree offering in global health, in order to ensure they produce graduates prepared to work in a globalized world.

57% of universities offered at least a single global health event. It is notable that most of these universities ranked towards the top of the table, indicating that the hosting of extra-curricular GHE is a good in-

dicator of effective GHE provision. These events allow students of all disciplines to attend and are a valuable focus for interdisciplinary engagement. The fact that 11 universities had not hosted a single event on a global health topic is disappointing. This indicates a lack of investment in shared learning about global health issues.

In an increasingly interconnected world, it is vital that Universities create partnerships with overseas institutions in order to provide high-quality GHE provision and shared learning. The existence of partnerships between U.K. institutions and those in low- and middle-income countries was a point of focus in this study. These partnerships provide significant benefits to GHE, by enabling students to participate in bilateral exchanges, as well as providing a nexus for the exchange of “shared learning” between institutions.⁹ The formation of partnerships are also one of the four main areas of focus for the U.K. government in its efforts to improve international health.¹⁸

Table 4
The number of points each university is awarded per category.

University	Question 1A ^a	Question 1B ^a	Question 2 ^a	Question 3	Question 4	Question 5	Total points	Tie break (%)
London School of Hygiene and Tropical Medicine	2	0	8	1	1	1	13	66
The University of Edinburgh	2	2	5	1	1	1	12	0.91
University College London	2	2	5	1	1	1	12	0.8
Queen Mary University of London	2	2	5	1	1	0	11	1.65
King's College London	2	2	4	1	1	1	11	1.39
The University of Manchester	2	2	4	1	1	1	11	0.34
University of Sussex	2	0	3	1	1	1	8	1.27
University of Leeds	2	0	4	1	1	0	8	1.23
Liverpool School of Tropical Medicine	2	0	3	1	1	0	7	85.71
Imperial College London	0	2	2	1	1	1	7	1.57
University of Southampton	2	0	2	1	1	1	7	0.61
University of Glasgow	2	2	3	0	0	0	7	0.54
The University of Sheffield	2	2	1	0	1	1	7	0.49
University of Bristol	2	2	1	0	1	0	6	0.34
University of Oxford	2	0	1	0	1	1	5	0.35
University of Liverpool	2	0	1	1	1	0	5	0.19
The University of Warwick	2	0	1	0	0	0	3	0.74
University of Aberdeen	2	0	1	0	0	0	3	0.48
Newcastle University	2	0	1	0	0	0	3	0.44
University of Birmingham	2	0	1	0	0	0	3	0.27
Cardiff University	2	0	0	0	0	0	2	0.13
University of Nottingham	2	0	0	0	0	0	2	0.12
University of Dundee	0	0	1	0	0	0	1	0.61
University of Cambridge	0	0	0	1	0	0	1	0.34
University of Reading	0	0	0	0	1	0	1	0.23
University of Leicester	0	0	0	0	0	1	1	0
University of Exeter	0	0	0	0	0	1	1	0

^aThe size of multiplier equals to 2.

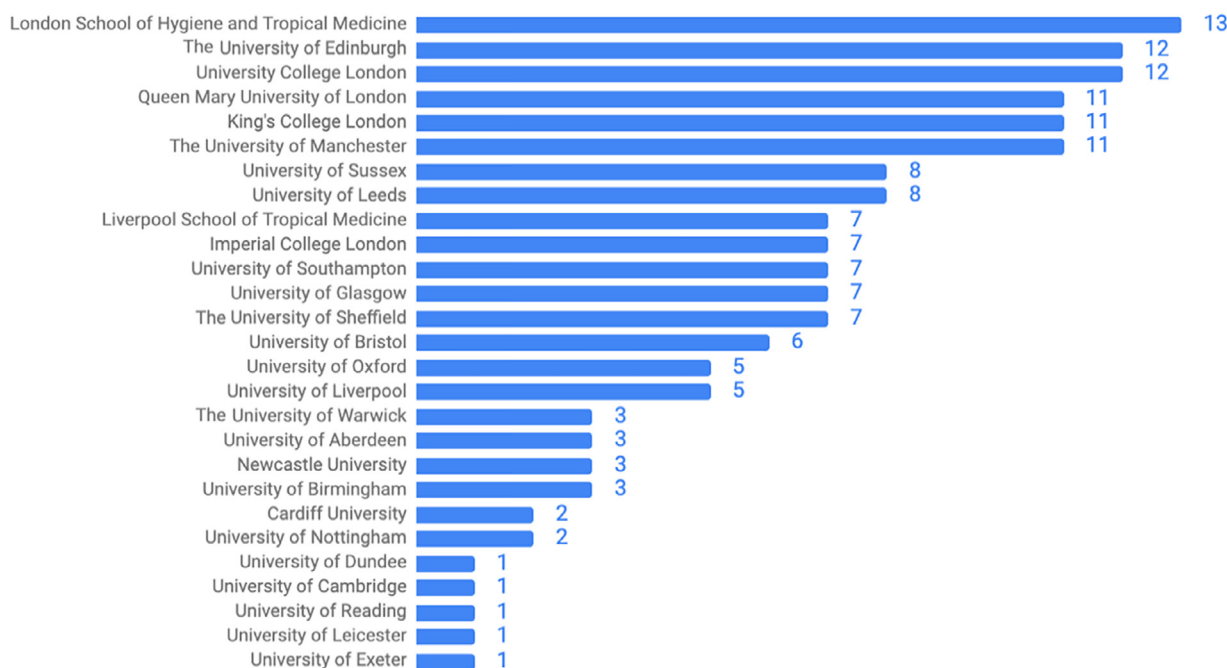


Fig. 1. Ranking of GHE provision in U.K. Universities.

The innovation in this paper has been the use of a standardized assessment system for the identification of quality global health content, namely the CUGH “GHE Competencies Toolkit”. This toolkit put together and peer reviewed by a sub-committee of the Consortium of Universities for Global Health, provided an effective framework for identifying global health content within the large catalogue of courses assessed across the 27 institutions included in the study. It did have its limitations—for instance in our assessment of undergraduate course content, we used the “global citizen level” learning competencies, which are defined by the CUGH sub-committee as being competencies which should be gained by all post-secondary students. We would argue that compe-

tencies at the exploratory level would be more suitable to undergraduates, and would have been more discriminating—however, competencies at this level have yet to be defined. We look forward to seeing the further expansion and definition of this framework by CUGH.

5. Limitations

Unfortunately, we found no reliable metric to assess the quality of global health courses. Student feedback is not standardized across universities, and, in the vast majority of cases, was simply not available for the reviewers to access. Other metrics, which may have functioned as

proxy measurements of quality, such as student: staff ratios and course specific funding, were not obtainable through FOIs as many universities do not hold or are not obliged to provide such information. This did not allow for an accurate or reliable assessment of course quality. In future, we would seek to ensure that this metric is obtained, perhaps through a standardized post-course questionnaire offered to students graduating from postgraduate and undergraduate degree courses. We hope that doing this may allow our league table to serve as a more useful tool for students in selecting an institution at which to study.

Our identification of postgraduate and undergraduate courses for inclusion, and whether they met CUGH criteria, was purely based on information available online—some module descriptions for some institutions were unfortunately brief, which prevented us from scoring them as highly as may have been possible. We would urge institutions to ensure that they release as much information as possible regarding module options for prospective students, to allow informed choices to be made when selecting degree qualifications. We also welcome correspondence from course leads with more information to enable this ranking to be as accurate as possible in future iterations.

Our use of partnership's data from THET was a pragmatic one—it allowed us a guarantee of quality as well as a single dataset in which international partnerships involving U.K. institutions could be identified. We accept that this set is not all encompassing, which is part of the reason that partnerships did not receive a weighting multiplier. In future iterations we would gladly accept individual institutions submitting details of sustainable partnerships that the authors may otherwise not be aware of. Exchange programs, internships and elective placements between institutions were also not included due to difficulty in finding this information easily available online. Additionally, there is strong evidence that placements in LMIC and LIC settings can be of little benefit and sometimes actively harmful both student and host institutions.^{19–20} This ambiguity was an additional reason for the omission of these placements as a metric.

It is also of note that a specialist institution, the Liverpool School of Tropical Medicine, ranked relatively poorly relative to its position as a specialist global health institution. Part of this was an artifact of its small size, limiting the number of global health courses it offered and therefore scoring poorly on breadth relative to larger Universities. Its status as a postgraduate institution also harmed its overall score, as with London School of Hygiene & Tropical Medicine, given it was unable to score any points for undergraduate specialist courses.

Smaller universities will have scored comparatively less well in the breadth metric compared to their larger counterparts, as a result of them offering less courses overall in all domains. We accounted for this by using the percent of global health courses as a total of course catalogue as a tiebreaker, which rewarded smaller institutions who had invested relatively more in GHE provision than larger institutions.

Finally, we recognize that this study does not give any weighting to the large and active student body across the U.K. higher educational system, which is represented by organizations such as Students for Global Health and Universities Allied for Essential Medicines, or the extra-curricular global health opportunities offered as a result of the activities of these organizations—such as local conferences, or bespoke global health short courses. This project is primarily aimed at the activities of higher educational institutions, and could be used as an advocacy tool by these groups to improve the provision of GHE.

6. Conclusion

A large majority of U.K. universities offer some form of postgraduate or undergraduate qualification in global health. Those institutions wishing to improve their global health offerings should consider the establishment of a postgraduate or undergraduate degree course. Breadth of global health content across curricular was a major discriminating factor between institutions, and we would advise universities to consider including more global health topics across their course

catalogue—especially in light of the intersectional impacts of the COVID-19 pandemic.

GHE is a rapidly developing area of educational practice, but it lacks a concrete definition. We hope that by using the CUGH competencies we have highlighted a possible framework for education practitioners to draw on when developing and designing GHE content.

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Availability of data and materials

Data was obtained by emailing each university's recruitment office to obtain the course. FOIs were sent. The remaining data was obtained through the universities' websites and the THET website.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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