

Supplementary Table S1. Most Represented Countries of Authors' Affiliations by World Bank income classification.

	N (%)
Authors with high-income country affiliations only	N=5749
United States	3,146; 54.7%
United Kingdom	701; 12.2%
Canada	272; 4.7%
Switzerland	205; 3.6%
France	186; 3.2%
Australia	173; 2.0%
Authors with upper middle-income country affiliations only	N=2460
South Africa	544; 22.1%
China	430; 17.5%
Brazil	277; 11.3%
Turkey	232; 9.4%
Thailand	223; 9.1%
Lebanon	129; 5.2%
Authors with lower middle-income country affiliations only	N=3731
India	693; 18.6%
Bangladesh	361; 9.7%
Tanzania	300; 8.0%
Kenya	274; 7.3%
Nigeria	270; 7.2%
Iran	244; 6.5%
Authors with low-income country affiliations only	N=1452

Uganda	321; 22.1%
Ethiopia	203; 14.0%
Rwanda	185; 12.7%
Malawi	148; 10.2%
Sierra Leone	96; 6.6%

Supplemental Table S2. Articles which included at least one author from each study country.

Author Representation from Each Study Country	
Single-country studies (n=1,575), <i>n</i> (%)	1438 (91.3)
LIC studies (n=381), <i>n</i> (%)	
Yes	326 (85.6)
No (i.e., no local authors from study country)	55 (14.4)
Lower MIC studies (n=787), <i>n</i> (%)	
Yes	722 (91.7)
No (i.e., no local authors from study country)	65 (8.3)
Upper MIC studies (n=407), <i>n</i> (%)	
Yes	390 (95.8)
No (i.e., no local authors from study country)	17 (4.2)
Multi-country studies (n=176), <i>n</i> (%)	73 (41.5)
Studies ≥ 10 study countries (n=36), <i>n</i> (%)	3 (8.3)

Supplementary Table S3. Multivariable regression for outcomes of local first and last authors (affiliated only with the study country) among single-country studies (uses funding from study country as variable).

	Local First Author	Local Last Author
	aOR (95% CI)	aOR (95% CI)
World Bank Classification		
LIC	ref	ref
LMIC	1.62 (1.18-2.20)	1.99 (1.43-2.75)
UMIC	3.62 (2.48-5.29)	5.93 (4.02-8.76)
Number of Study Authors		
1-5	ref	ref
6-10	0.46 (0.36-0.60)	0.55 (0.43-0.71)
11 or more	0.36 (0.26-0.49)	0.34 (0.24-0.47)
Any funding from study country	2.87 (2.01-4.10)	3.15 (2.25-4.41)
GEMLR Category		
EMRLS	ref	ref
EMD	0.38 (0.28-0.52)	0.68 (0.50-0.93)
DHR	0.16 (0.11-0.23)	0.22 (0.15-0.32)
WHO Region		
EUR	ref	ref
AFRO	0.33 (0.15-0.72)	0.76 (0.38-1.50)
AMR	0.21 (0.09-0.48)	0.28 (0.13-0.58)
EMR	0.56 (0.25-1.27)	1.23 (0.60-2.53)
SEAR	0.80 (0.35-1.81)	1.23 (0.60-2.52)
WPR	0.43 (0.18-1.00)	0.63 (0.30-1.34)

Supplementary Table S4. Authorship by Study Design

	RCT n(%)	Prospective Cohort n(%)	Other n(%)	p*
First Author Affiliation	n=86	n=318	n=1,347	<0.01
HIC	35 (40.7)	117 (36.8)	616 (45.7)	
Upper MIC	15 (17.4)	55 (17.3)	237 (17.6)	
Lower MIC	22 (25.6)	91 (28.6)	304 (22.6)	
LIC	3 (3.5)	20 (6.3)	97 (7.2)	
Mixed	11 (12.8)	35 (11.0)	93 (6.9)	
Second Author Affiliation	n=86	n=313	n=1258	<0.01
HIC	27 (31.4)	112 (35.8)	496 (39.4)	
Upper MIC	14 (16.3)	57 (18.2)	239 (19)	
Lower MIC	30 (34.9)	105 (33.6)	340 (27)	
LIC	8 (9.3)	21 (6.7)	124 (9.9)	
Mixed	7 (8.1)	18 (5.8)	59 (4.7)	
Last Author Affiliation	n=86	n=318	n=1331	<0.01
HIC	40 (46.5)	138 (43.4)	659 (49.5)	
Upper MIC	12 (14.0)	55 (17.3)	236 (17.7)	
Lower MIC	12 (14.0)	82 (25.8)	265 (19.9)	
LIC	1 (1.2)	13 (4.1)	69 (5.3)	
Mixed	21 (24.4)	30 (9.4)	102 (7.7)	
* Fisher's exact test				

Supplementary Table S5. Authorship by GEMLR Category

	Emergency Care in Resource Limited Settings (ECRLS)	Emergency Medicine Development (EMD)	Disaster and Humanitarian Response (DHR)	p*
First Author Affiliation	n=1,208	n=264	n=279	<0.01
HIC	436 (36.1)	146 (55.3)	186 (66.7)	
Upper MIC	231 (19.1)	39 (14.8)	37 (13.3)	
Lower MIC	335 (27.7)	48 (18.2)	34 (12.2)	
LIC	98 (8.1)	15 (5.7)	7 (2.5)	
Mixed	108 (8.9)	16 (6.1)	14 (5.4)	
Second Author Affiliation				<0.01
HIC	509 (42.3)	141 (53.6)	187 (69.5)	
Upper MIC	227 (18.9)	45 (17.1)	31 (11.5)	
Lower MIC	283 (23.5)	48 (18.3)	28 (10.4)	
LIC	63 (5.2)	10 (3.8)	10 (3.7)	
Mixed	121 (10.1)	19 (7.2)	13 (4.8)	
Last Author Affiliation				<0.01
HIC	371 (31.9)	120 (49.4)	143 (57.4)	
Upper MIC	230 (19.8)	39 (16.1)	41 (16.5)	
Lower MIC	378 (32.5)	53 (21.8)	44 (17.7)	
LIC	119 (10.2)	21 (8.6)	13 (5.2)	
Mixed	66 (5.7)	10 (4.1)	8 (3.2)	
*Chi-square test				

Supplementary Table S6. Study Countries among Single-Country Studies in descending order of frequency.

Study Country	Freq.	%
India	131	8.32
South Africa	104	6.60
Uganda	80	5.08
Tanzania	78	4.95
Bangladesh	60	3.81
Kenya	60	3.81
Nigeria	55	3.49
Ethiopia	53	3.37
Ghana	49	3.11
Iran, Islamic Rep.	47	2.98
Pakistan	45	2.86
Malawi	44	2.79
Sierra Leone	42	2.67
China	40	2.54
Rwanda	39	2.48
Thailand	35	2.22
Brazil	32	2.03
Turkey	32	2.03
Nepal	31	1.97
Haiti	30	1.90
Lebanon	22	1.40
Malaysia	21	1.33
Vietnam	21	1.33
Sri Lanka	20	1.27
Egypt, Arab Rep.	18	1.14
Iraq	18	1.14
Cambodia	16	1.02

Syrian Arab Republic	15	0.95
Cameroon	14	0.89
Guinea	14	0.89
Philippines	14	0.89
South Sudan	14	0.89
Sudan	14	0.89
Zambia	14	0.89
Indonesia	12	0.76
Jordan	12	0.76
Peru	12	0.76
Guatemala	11	0.70
Colombia	10	0.63
Liberia	10	0.63
Afghanistan	9	0.57
Mozambique	9	0.57
Botswana	8	0.51
West Bank and Gaza	8	0.51
Congo, Dem. Rep.	7	0.44
Mexico	7	0.44
Argentina	6	0.38
Costa Rica	6	0.38
Madagascar	6	0.38
Papua New Guinea	6	0.38
Solomon Islands	6	0.38
Zimbabwe	6	0.38
The Gambia	5	0.32
Honduras	5	0.32
Myanmar	5	0.32
Senegal	5	0.32

Ukraine	5	0.32
Albania	4	0.25
Burkina Faso	4	0.25
Ecuador	4	0.25
Paraguay	4	0.25
Yemen, Rep.	4	0.25
Bolivia	3	0.19
Jamaica	3	0.19
Mongolia	3	0.19
Somalia	3	0.19
Tunisia	3	0.19
Angola	2	0.13
Benin	2	0.13
Bhutan	2	0.13
Bosnia and Herzegovina	2	0.13
Burundi	2	0.13
Central African Republic	2	0.13
Eswatini (Swaziland)	2	0.13
Georgia	2	0.13
Kazakhstan	2	0.13
Kiribati	2	0.13
Kosovo	2	0.13
Libya	2	0.13
Nicaragua	2	0.13
Serbia	2	0.13
Togo	2	0.13
American Samoa	1	0.06
Djibouti	1	0.06
Eritrea	1	0.06

Fiji	1	0.06
Gabon	1	0.06
Guinea-Bissau	1	0.06
Guyana	1	0.06
Lao PDR	1	0.06
Mali	1	0.06
Micronesia, Fed. Sts.	1	0.06
Tajikistan	1	0.06
Uzbekistan	1	0.06

Supplementary Table S7. First author's country of affiliation among single-country studies in descending order of frequency including authors with multiple country affiliations.

Country	Count	%
United States	385	24.44
Multiple Country Affiliations	147	9.33
India	89	5.65
South Africa	77	4.89
United Kingdom	63	4.00
Iran, Islamic Rep.	46	2.92
Nigeria	41	2.60
China	38	2.41
Ethiopia	38	2.41
Pakistan	34	2.16
Turkey	34	2.16
Bangladesh	33	2.10
Brazil	29	1.84
Canada	29	1.84
Tanzania	26	1.65
Thailand	26	1.65
Australia	23	1.46
Sweden	22	1.40
Uganda	21	1.33
Ghana	20	1.27
Malaysia	19	1.21
Lebanon	17	1.08
Rwanda	17	1.08

Egypt, Arab Rep.	16	1.02
Kenya	16	1.02
Indonesia	13	0.83
Nepal	13	0.83
France	12	0.76
Vietnam	12	0.76
Switzerland	11	0.70
Malawi	10	0.63
Sri Lanka	10	0.63
Belgium	9	0.57
Korea, Rep.	9	0.57
Cameroon	8	0.51
Italy	8	0.51
Jordan	7	0.44
Norway	7	0.44
Colombia	6	0.38
Mozambique	6	0.38
Cambodia	5	0.32
Costa Rica	5	0.32
Germany	5	0.32
Haiti	5	0.32
Japan	5	0.32
Mexico	5	0.32
Netherlands	5	0.32
Sudan	5	0.32
Guinea	4	0.25

Iraq	4	0.25
Ireland	4	0.25
Liberia	4	0.25
Argentina	3	0.19
Paraguay	3	0.19
Tunisia	3	0.19
Zambia	3	0.19
Albania	2	0.13
Bhutan	2	0.13
Bosnia and Herzegovina	2	0.13
Burkina Faso	2	0.13
Denmark	2	0.13
The Gambia	2	0.13
Israel	2	0.13
Kazakhstan	2	0.13
Libya	2	0.13
Madagascar	2	0.13
Papua New Guinea	2	0.13
Peru	2	0.13
Philippines	2	0.13
Saudi Arabia	2	0.13
Togo	2	0.13
Zimbabwe	2	0.13
Afghanistan	1	0.06
Austria	1	0.06
Benin	1	0.06

Botswana	1	0.06
Djibouti	1	0.06
Ecuador	1	0.06
Eritrea	1	0.06
Georgia	1	0.06
Greece	1	0.06
Guyana	1	0.06
Honduras	1	0.06
Jamaica	1	0.06
Kosovo	1	0.06
Lao PDR	1	0.06
Mali	1	0.06
Myanmar	1	0.06
Poland	1	0.06
Senegal	1	0.06
Serbia	1	0.06
Sierra Leone	1	0.06
Slovak Republic	1	0.06
Solomon Islands	1	0.06
Somalia	1	0.06
South Sudan	1	0.06
Spain	1	0.06
Tajikistan	1	0.06
West Bank and Gaza	1	0.06
Yemen, Rep.	1	0.06

Supplementary Table S8. Last author's country of affiliation among single-country studies in descending order of frequency including authors with multiple country affiliations.

Country	Count	%
United States	399	25.33
Multiple Country Affiliations	161	10.22
South Africa	96	6.10
India	87	5.52
United Kingdom	60	3.81
Nigeria	42	2.67
Iran, Islamic Rep.	41	2.60
China	37	2.35
Turkey	32	2.03
Ethiopia	31	1.97
Canada	31	1.97
Bangladesh	31	1.97
Switzerland	29	1.84
Sweden	29	1.84
Pakistan	29	1.84
Brazil	27	1.71
Thailand	26	1.65
Australia	22	1.40
Malaysia	19	1.21
Lebanon	18	1.14
Kenya	18	1.14
Tanzania	15	0.95
Norway	15	0.95

France	15	0.95
Egypt, Arab Rep.	15	0.95
Ghana	14	0.89
Uganda	13	0.83
Nepal	11	0.70
Netherlands	10	0.63
Korea, Rep.	10	0.63
Belgium	10	0.63
Indonesia	9	0.57
Germany	9	0.57
Sri Lanka	7	0.44
Sierra Leone	6	0.38
Rwanda	6	0.38
Mexico	6	0.38
Cameroon	6	0.38
Jordan	5	0.32
Japan	5	0.32
Italy	5	0.32
Denmark	5	0.32
Yemen, Rep.	4	0.25
Vietnam	4	0.25
The Gambia	4	0.25
Liberia	4	0.25
Haiti	4	0.25
Colombia	4	0.25

Zimbabwe	3	0.19
Tunisia	3	0.19
Spain	3	0.19
Senegal	3	0.19
Philippines	3	0.19
Mozambique	3	0.19
Ireland	3	0.19
Ecuador	3	0.19
Argentina	3	0.19
Zambia	2	0.13
West Bank and Gaza	2	0.13
Sudan	2	0.13
Saudi Arabia	2	0.13
Myanmar	2	0.13
Malta	2	0.13
Malawi	2	0.13
Madagascar	2	0.13
Luxembourg	2	0.13
Israel	2	0.13
Guinea	2	0.13
Finland	2	0.13
Fiji	2	0.13
Congo, Dem. Rep.	2	0.13
Chile	2	0.13
Cambodia	2	0.13

Botswana	2	0.13
Togo	1	0.06
Tajikistan	1	0.06
Taiwan	1	0.06
Somalia	1	0.06
Solomon Islands	1	0.06
Slovak Republic	1	0.06
Singapore	1	0.06
Poland	1	0.06
Peru	1	0.06
Paraguay	1	0.06
Nicaragua	1	0.06
New Zealand	1	0.06
Mali	1	0.06
Libya	1	0.06
Lao PDR	1	0.06
Kosovo	1	0.06
Iraq	1	0.06
Hong Kong SAR, China	1	0.06
Honduras	1	0.06
Greece	1	0.06
Djibouti	1	0.06
Costa Rica	1	0.06
Burkina Faso	1	0.06
Bosnia and Herzegovina	1	0.06

Benin	1	0.06
Austria	1	0.06
Albania	1	0.06
Afghanistan	1	0.06

Supplementary File S9– Reflexivity Statement

1. How does this study address local research and policy priorities?

This study was specifically designed to address inequities in authorship and representation of researchers affiliated with low- and middle-income countries (LMIC) institutions within international emergency medicine partnerships. This is an issue of major priority for LMIC researchers who engage in collaboration with high-income country researchers, as authorship on publications has implications for research priority-setting, funding, and recognition and career advancement.

2. How were local researchers involved in study design?

As this was an entirely virtual collaboration of authors based throughout the world from five continents, there was no actual designation of “local” researchers. However, researchers currently affiliated with institutions in LMICs were involved in the development of the study design and data extraction tool, recruitment of the co-authorship group, planning of the study data analysis, and all phases of writing of the final manuscript.

3. How has funding been used to support the local research team?

This study had no funding.

4. How are research staff who conducted data collection acknowledged?

All members of the team who conducted data extraction (GH, SG, CR, SD, CGM, JC, RZ, RY, AZ, NT, SR, EN) were included as authors.

5. Do all members of the research partnership have access to study data?

All members of the research partnership have full access to the dataset.

6. How was data used to develop analytical skills within the partnership?

Authors that were part of the data extraction team (GH, SG, CR, SD, CGM, JC, RZ, RY, AZ, NT, SR, EN) jointly created and iteratively revised the REDCap data extraction tool through consensus. Authors SCG and CR mentored other co-authors of the data extraction team in the use of REDCap and data collection. Authors GH and CGM (faculty affiliated with LMIC and HIC institutions respectively) worked closely with students NT and RY to develop skills in literature review and contribute to the introduction sections. SG and CGM mentored author GH in the literature review and manuscript writing. The entire authorship group also met on multiple scheduled virtual

conference calls to analyze, interpret and review the data. Author JC provided education to the entire group on the creation of data visualizations through Tableau software.

7. How have research partners collaborated in interpreting study data?

All research partners met on monthly scheduled virtual conference calls to analyze and review the data and come to consensus on interpretation of the study data. Input from LMIC-based researchers was particularly critical in this process to ensure the lived experiences as researchers in LMICs were reflected in the interpretation of the data in the results section and development of the discussion section.

8. How were research partners supported to develop writing skills?

The research team consisted of a diverse mix of faculty (mostly early-career and some mid-career and senior faculty) from low-income countries, lower middle-income countries, upper middle-income countries, and high-income countries, trainees (residents) in emergency medicine, as well as students in medicine and public health (NT, RZ, RY, AZ). All authors contributed to the writing process, with the largest sections of writing responsibility given to several authors who expressed a desire to increase and advance their manuscript writing experience (GH, RY, NK) These authors were supported by early-career and mid-career faculty (SCG, CR, CGM, JC, RM) within the writing working groups to refine skills in writing and literature review and synthesis.

9. How will research products be shared to address local needs?

The manuscript will be published in an open access journal. We will also present the abstract of the study findings to several international conferences in emergency medicine including the International Conference on Emergency Medicine and the Society of Academic Emergency, both conferences attract a large and international audience of emergency care practitioners. We also plan to share the manuscript through our own networks of emergency medicine departments globally through the Society of Academic Emergency Medicine Global Emergency Medicine Academy and the African Federation of Emergency Medicine.

10. How is the leadership, contribution and ownership of this work by LMIC researchers recognised within the authorship?

Joint-first authorship is held by author GH who is based in an LMIC and who was one of the group leads for writing of this manuscript. The majority of the authors are based in LMICs. We acknowledge that the initial group of authors that first conceptualized the study (SCG, CGM, CR) are based in HICs, and therefore the co-first author (SCG) and last author (CR) are from HICs, we specifically sought to ensure balance and representation of authors from diverse settings and career stages for this study, particularly because the focus of this study was examining authorship

representation in our field. It was a fundamental aim of this study not only to examine the literature, but to provide opportunities to researchers from LMICs, especially trainees from LMICs to gain experience working on collaborative academic publications.

11. How have early career researchers across the partnership been included within the authorship team?

Nearly all members of this authorship group are early career researchers, mostly early career faculty as well as trainees and students. They attended all the workshops, contributed to the literature review and evidence synthesis and to development of the consensus recommendations. More than half of this study's authors are based and affiliated exclusively with LMIC institutions.

12. How has gender balance been addressed within the authorship?

The study group made a conscious effort to include early-career female LMIC researchers and trainees in this collaborative project, given the over-representation of senior male researchers from LMICs that have been noted in prior studies. Therefore, there were more women in this collaboration than men, with 19 authors who identify as female and 7 who identify as male. The co-first authors and second author identify as female and the last author identifies as male.

13. How has the project contributed to training of LMIC researchers?

More than half of this study's authors are based and affiliated exclusively with LMIC institutions. The majority of the authors are early-career faculty or trainees based in LMICs.

14. How has the project contributed to improvements in local infrastructure?

This project has not directly contributed to improvements in local infrastructure.

15. What safeguarding procedures were used to protect local study participants and researchers?

There was no primary data collection as part of this project, therefore this question is not directly applicable.