

**Table S1: Missing data.**

<b>Author institutional affiliation</b>	<b>Gender missing: number of authors (% of authors)</b>	<b>Seniority missing: number of authors (% of authors)</b>
Affiliated with HIC institutions only	11 (0.2)	126 (2.7)
Affiliated with both HIC and LMIC institutions	0 (0)	10 (2.7)
Affiliated with LMIC institutions only	26 (0.6)	449 (10.7)

**Table S2: Author characteristics by study topic.** Cells show the number of authors in each category (percentage of authors in brackets). Institutional affiliation **HIC** refers to authors affiliated only with HICs, **HIC and LMIC** refers to authors affiliated with both HICs and LMICs, **LMIC** refers to authors affiliated only with LMICs. The  $\chi^2$  test was used to compare distributions of author characteristics across study topics – corresponding p values are shown. (*O&G: Obstetrics and Gynaecology, A&C: Anaesthesia and Critical Care, HIC, high-income country; LMIC: low-income and middle-income country.*)

		<b>A&amp;C</b>	<b>Multiple topics</b>	<b>O&amp;G</b>	<b>Surgery</b>	<b>Significance</b>
<b>Gender</b>	Male	279 (65)	236 (65)	1894 (50)	3217 (69)	p < 0.001
	Female	152 (35)	128 (35)	1907 (50)	1451 (31)	
<b>Institutional affiliation</b>	HIC	182 (42)	196 (54)	2006 (53)	2360 (50)	p = 0.002
	HIC and LMIC	25 (6)	16 (4)	141 (4)	183 (4)	
	LMIC	224 (52)	154 (42)	1671 (44)	2143 (46)	
<b>Seniority</b>	1, 2 (lowest)	34 (9)	42 (12)	403 (11)	416 (9)	p < 0.001
	3	59 (16)	105 (30)	696 (20)	841 (19)	
	4, 5 (highest)	287 (76)	200 (58)	2458 (69)	3175 (72)	

**Table S3: Gender and seniority of authors affiliated with at least 1 HIC (HIC authors) and authors affiliated only with LMICs (LMIC authors).** Cells show the number of authors (percentage of authors in brackets). The  $\chi^2$  test was used to compare distributions of author characteristics across institutional affiliation categories – corresponding p values are shown. (*HIC, high-income country; LMIC: low-income and middle-income country.*)

			<b>HIC authors</b>	<b>LMIC authors</b>	<b>Significance</b>
<b>First authors</b>	<b>Author gender</b>	Male	364 (44)	278 (67)	p < 0.001
		Female	457 (56)	139 (33)	
	<b>Author seniority</b>	1 (lowest)	18 (2)	2 (0.5)	p < 0.001
		2	106 (13)	33 (9)	
		3	251 (31)	62 (16)	
		4	307 (38)	212 (55)	
5 (highest)		122 (15)	79 (20)		
<b>Last authors</b>	<b>Author gender</b>	Male	556 (64)	259 (73)	p = 0.002
		Female	318 (37)	97 (27)	
	<b>Author seniority</b>	1 (lowest)	0 (0)	1 (0.3)	p = 0.032
		2	18 (2)	17 (5)	
		3	97 (11)	38 (11)	
		4	390 (45)	146 (44)	
5 (highest)		364 (42)	132 (40)		
<b>Middle authors</b>	<b>Author gender</b>	Male	1887 (55)	2282 (67)	p < 0.001
		Female	1516 (45)	1111 (33)	
	<b>Author seniority</b>	1 (lowest)	51 (2)	17 (1)	p < 0.001
		2	293 (9)	339 (11)	
		3	739 (22)	514 (17)	
		4	1413 (43)	1394 (46)	
5 (highest)		804 (24)	757 (25)		

**Table S4: Gender distribution within each seniority grade for authors affiliated with at least 1 HIC (HIC authors) and authors affiliated only with LMICs (LMIC authors).** Cells show the number of authors (percentage of authors in brackets). The  $\chi^2$  test was used to compare the combined author gender and seniority distribution across institutional affiliation categories – corresponding p values are shown. (*HIC*, high-income country; *LMIC*: low-income and middle-income country.)

			HIC authors	LMIC authors	Significance
First authors	Seniority 1, 2 (lowest)	Male	59 (7)	22 (6)	p < 0.001
		Female	65 (8)	13 (3)	
	Seniority 3	Male	94 (12)	30 (8)	
		Female	157 (20)	32 (8)	
	Seniority 4	Male	148 (18)	148 (38)	
		Female	159 (20)	64 (16)	
	Seniority 5 (highest)	Male	57 (7)	56 (14)	
		Female	65 (8)	23 (6)	
Last authors	Seniority 1, 2 (lowest)	Male	3 (0.3)	9 (3)	p = 0.001
		Female	15 (2)	9 (3)	
	Seniority 3	Male	52 (6)	24 (7)	
		Female	45 (5)	14 (4)	
	Seniority 4	Male	239 (28)	108 (32)	
		Female	151 (17)	38 (11)	
	Seniority 5 (highest)	Male	257 (30)	100 (30)	
		Female	107 (12)	32 (10)	
Middle authors	Seniority 1, 2 (lowest)	Male	111 (3)	202 (15)	p < 0.001
		Female	232 (7)	154 (10)	
	Seniority 3	Male	377 (11)	329 (9)	
		Female	362 (11)	185 (5)	
	Seniority 4	Male	838 (25)	988 (28)	
		Female	575 (17)	403 (11)	
	Seniority 5 (highest)	Male	519 (16)	559 (16)	
		Female	285 (9)	197 (6)	

**Table S5: Characteristics of studies with different authorship networks.** Characteristics of studies where all authors were affiliated only with HICs (**all HIC authors**), studies where all authors were affiliated only with LMICs (**all LMIC authors**), studies with HIC first and last authors and studies with LMIC first and last authors are shown. Some studies are included in multiple categories, e.g. some studies are included both in the “**all HIC authors**” and “**HIC first and last authors**” categories. Cells in the first row show the number of studies (percentage of total studies in brackets). (*HIC, high-income country; LMIC: low-income and middle-income country.*)

	<b>All HIC authors</b>	<b>All LMIC authors</b>	<b>HIC first and last authors</b>	<b>LMIC first and last authors</b>
Number of studies (% of total)	220 (18)	200 (16)	726 (59)	259 (21)
H5 index (median)	49	40	51	43
% LMIC authors (median)	0	100	22.6	100

**Table S6: Gender distribution within each seniority grade for authors affiliated with at least 1 HIC (HIC authors) and authors affiliated only with LMICs (LMIC authors), separated by study type.** Subgroup analyses for all 3 authorship positions (first, last and middle authors) were performed separately for HIC and LMIC authors. The  $\chi^2$  test was used to compare the combined author gender and seniority distribution across studies where all authors were affiliated only with HICs (**all HIC authors**), studies where all authors were affiliated only with LMICs (**all LMIC authors**), studies with HIC first and last authors and studies with LMIC first and last authors. Cells show the number of authors (percentage of authors in brackets). (*HIC, high-income country; LMIC: low-income and middle-income country.*)

			All studies	All HIC authors	All LMIC authors	HIC first and last authors	LMIC first and last authors	Significance		
HIC first authors	Seniority 1/2 (lowest)	Male	59 (7)	16 (8)		54 (8)		p = 0.325		
		Female	65 (8)	17 (8)		61 (9)				
	Seniority 3	Male	94 (12)	33 (16)		85 (12)				
		Female	157 (20)	52 (25)		139 (20)				
	Seniority 4	Male	148 (18)	47 (22)		133 (19)				
		Female	159 (20)	25 (12)		136 (19)				
	Seniority 5 (highest)	Male	57 (7)	9 (4)		52 (7)				
		Female	65 (8)	13 (6)		47 (7)				
	LMIC first authors	Seniority 1/2 (lowest)	Male	22 (6)		12 (7)			18 (8)	p = 0.996
			Female	13 (3)		6 (3)			8 (3)	
Seniority 3		Male	32 (8)		15 (8)		21 (9)			
		Female	30 (8)		18 (10)		23 (10)			
Seniority 4		Male	148 (38)		72 (40)		87 (37)			
		Female	64 (16)		27 (15)		41 (17)			
Seniority 5 (highest)		Male	56 (14)		20 (11)		28 (12)			
		Female	23 (6)		11 (6)		12 (5)			
HIC last authors		Seniority 1/2 (lowest)	Male	3 (0.3)	0 (0)		1 (0.1)		p = 0.796	
			Female	15 (2)	5 (2)		12 (2)			
	Seniority 3	Male	52 (6)	11 (5)		41 (6)				

		Female	45 (5)	18 (8)		41 (6)		
	Seniority 4	Male	239 (28)	63 (29)		196 (27)		
		Female	151 (17)	37 (17)		127 (18)		
	Seniority 5 (highest)	Male	257 (30)	48 (22)		209 (29)		
		Female	107 (12)	32 (15)		91 (13)		
LMIC last authors	Seniority 1/2 (lowest)	Male	9 (3)		2 (1)		3 (1)	p = 0.850
		Female	9 (3)		8 (4)		8 (3)	
	Seniority 3	Male	24 (7)		15 (8)		20 (8)	
		Female	14 (4)		9 (5)		11 (5)	
	Seniority 4	Male	108 (32)		67 (37)		88 (37)	
		Female	38 (11)		24 (13)		29 (12)	
	Seniority 5 (highest)	Male	100 (30)		41 (23)		60 (25)	
		Female	32 (10)		13 (7)		21 (9)	
HIC middle authors	Seniority 1/2 (lowest)	Male	111 (3)	40 (5)		18 (45)	0	Comparing all 4 study types:  p < 0.001  Comparing All studies vs Studies with only HIC or HIC/LMIC authors:  p < 0.001
		Female	232 (7)	60 (8)		22 (55)	1 (100)	
	Seniority 3	Male	377 (11)	123 (16)		0	0	
		Female	362 (11)	100 (13)		0	0	
	Seniority 4	Male	838 (25)	193 (25)		0	0	
		Female	575 (17)	102 (13)		0	0	
	Seniority 5 (highest)	Male	519 (16)	93 (12)		0	0	
		Female	285 (9)	48 (6)		0	0	
LMIC middle authors	Seniority 1/2 (lowest)	Male	202 (7)		38 (6)	6 (86)	6 (67)	Comparing all 4 study types:  p < 0.001
		Female	154 (5)		38 (6)	1 (14)	3 (33)	
	Seniority 3	Male	329 (11)		61 (10)	0	0	
		Female	185 (6)		40 (6)	0	0	

	Seniority 4	Male	988 (33)		226 (36)	0	0	<i>Comparing All studies vs Studies with only LMIC authors:</i>  p < 0.001
		Female	403 (13)		124 (20)	0	0	
	Seniority 5 (highest)	Male	559 (19)		74 (12)	0	0	
		Female	197 (7)		32 (5)	0	0	

**Figure S1: PRISMA flowchart depicting the article screening process.**

