

PURPOSE

- The COVID-19 pandemic profoundly disrupted scientific research but was accompanied by a rapid increase in research focused on this new disease.
- We aimed to study how the academic productivity of US medical schools changed during the pandemic and what school characteristics were associated with trends in scholarly publication.

METHODS

- Annual totals of publications for each US MD-granting medical school were extracted for 2019-2021 from the Scopus database.
- Schools were categorized as:
 - Experiencing a sustained increase in publications
 - Transient increase in publications
 - No increase in publications.
- Bivariate tests compared school characteristics among the three (3) categories

Variable	Schools with sustained increase in publications (N=110)	Schools with transient increase in publications (N=9)	Schools with no increase in publications (N=20)	P
School type				0.072
Private	42 (38%)	1 (11%)	11 (55%)	
Public	68 (62%)	8 (89%)	9 (45%)	
Census region				0.157
Northeast	25 (23%)	1 (11%)	4 (20%)	
Midwest	29 (26%)	1 (11%)	3 (15%)	
South	34 (31%)	7 (78%)	11 (55%)	
West	19 (17%)	0	1 (5%)	
PR	3 (3%)	0	1 (5%)	
Number of faculty	1104 (653, 1925)	353 (248, 446)	719 (230, 1105)	<0.001
Faculty-student ratio	1.9 (1.0, 2.7)	0.8 (0.7, 1.1)	0.9 (0.5, 1.7)	<0.001
Residency programs				
Emergency medicine	88 (80%)	4 (44%)	14 (70%)	0.037
Family medicine	89 (81%)	6 (67%)	15 (75%)	0.420
Internal medicine	108 (98%)	9 (100%)	18 (90%)	0.192
Faculty diversity (all faculty)				0.147
PWI, lowest tertile	36 (33%)	2 (22%)	6 (30%)	
PWI, middle tertile	35 (32%)	3 (33%)	6 (30%)	
PWI, highest tertile	36 (33%)	4 (44%)	4 (20%)	
HBCU and PR	3 (3%)	0	4 (20%)	
Faculty diversity (women)				0.035
PWI, lowest tertile	36 (33%)	3 (33%)	5 (25%)	
PWI, middle tertile	35 (32%)	1 (11%)	8 (40%)	
PWI, highest tertile	36 (33%)	5 (56%)	3 (15%)	
HBCU and PR	3 (3%)	0	4 (20%)	
Faculty diversity (men)				0.079
PWI, lowest tertile	34 (31%)	3 (33%)	7 (35%)	
PWI, middle tertile	39 (35%)	2 (22%)	3 (15%)	
PWI, highest tertile	34 (31%)	4 (44%)	6 (30%)	
HBCU and PR	3 (3%)	0	4 (20%)	
NIH funding (\$M)	16 (0, 119)	0 (0, 2)	6 (0, 32)	0.042
USNWR top 10 ranking	10 (9%)	0	1 (5%)	>0.999
Combined degree program	88 (80%)	6 (67%)	13 (65%)	0.196
R1 university affiliation	77 (70%)	4 (44%)	9 (45%)	0.038

Medical school characteristics (median and interquartile range or count and percentage), by medical school pattern of scholarly productivity during the COVID-19 pandemic (N=139 schools).

RESULTS

- Out of 139 MD schools:
 - 79% experienced sustained growth in publications
 - 6% experienced transient growth
 - 14% experienced no growth.
- Sustained growth was associated with being affiliated with an R1 university, having a larger faculty size, the presence of an EM residency, having higher NIH funding, and experiencing higher COVID-19 infection rates in the local community
- Among predominantly White institutions, a higher diversity of women faculty was associated with a higher likelihood of experiencing transient growth in publications.

CONCLUSIONS

- Scientific output increased during the pandemic at most medical schools
- We identified structural factors related to research capacity, faculty diversity, and the impact of the pandemic that may have contributed to differing trends in scholarly productivity among medical schools
- Further attention is needed to enhance equity in research opportunities, considering diverging trends in productivity between more and less advantaged schools.