

UC Irvine

UC Irvine Previously Published Works

Title

NIH Funding of Violence Research by Institute, 2011 to 2020

Permalink

<https://escholarship.org/uc/item/92z3809h>

Journal

JAMA, 327(22)

ISSN

0098-7484

Authors

Williams, Jessica R
Burton, Candace W
Anderson, Jocelyn C
[et al.](#)

Publication Date

2022-06-14

DOI

10.1001/jama.2022.5635

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed


JAMA. 2022 Jun 14; 327(22): 2240–2242.

PMCID: PMC9198719

Published online 2022 Jun 14. doi: 10.1001/jama.2022.5635; 10.1001/jama.2022.5635

PMID: [35699714](#)

NIH Funding of Violence Research by Institute, 2011 to 2020


[Jessica R. Williams](#), PhD, MPH, PHNA-BC, ¹ [Candace W. Burton](#), PhD, RN, AFN-BC, ² [Jocelyn C. Anderson](#), PhD, RN, SANE-A, ³ and [Jessica E. Draughon Moret](#), PhD, RN ⁴

¹School of Nursing, The University of North Carolina at Chapel Hill

²Sue & Bill Gross School of Nursing, University of California, Irvine

³Pennsylvania State University, Ross and Carol Nese College of Nursing, University Park

⁴Betty Irene Moore School of Nursing, University of California, Davis, Sacramento

 Corresponding author.

[Article Information](#)

Accepted for Publication: March 25, 2022.

Corresponding Author: Jessica R. Williams, PhD, MPH, PHNA-BC, School of Nursing, The University of North Carolina at Chapel Hill, 5004 Carrington Hall, Campus Box 7460, Chapel Hill, NC 27599-7460 (jrober65@email.unc.edu).

Author Contributions: Dr Williams had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: All authors.

Acquisition, analysis, or interpretation of data: All authors.

Drafting of the manuscript: Williams, Anderson, Draughon Moret.

Critical revision of the manuscript for important intellectual content: All authors.

Statistical analysis: Williams.

Administrative, technical, or material support: Williams, Burton.

Conflict of Interest Disclosures: None reported.

Received 2022 Feb 1; Accepted 2022 Mar 25.

[Copyright](#) 2022 American Medical Association. All Rights Reserved.

This study examines trends in violence research funding within and across National Institutes of Health (NIH) institutes/centers from 2011 to 2020.

Interpersonal violence, the intentional use of physical force or power by one person against another, accounts for 1.1% of disease burden in the US and has been estimated to harm more than 22 million individuals annually.^{1,2} Research on violence and its sequelae is important to improve health. A prior analysis of National Institutes of Health (NIH) funding across 46 disease categories found that violence research funding decreased by 40% from 2008 to 2019, the largest decrease in funding dollars (\$95 million) by disease category.⁴ To better understand this decrease, we examined trends in violence research funding within and across NIH institutes/centers from 2011 to 2020.

Methods

We conducted a secondary analysis of NIH-funded research project data from NIH RePORTER, a repository of NIH-funded research projects. We searched for all projects funded during fiscal years 2011 through 2020, extracting total funding dollars for the NIH overall and for each institute/center. We then replicated searches, limiting to violence-related projects using the NIH's Research, Condition, and Disease Categorization of Violence Research, including intimate partner violence, child abuse, youth violence, homicide, and other forms of interpersonal violence. We calculated the percentage of violence-related funding at the NIH (overall and by institute/center) across 2011 to 2020 and for each year, separately. We examined funding trends by calculating estimated annual percentage changes (EAPCs)³ and change from 2011 to 2020. Funding amounts were inflated to 2020 dollars.⁴ We focused on trends in institutes/centers with more than 0.5% of institute/center funding allocated to violence research from 2011 to 2020. Data were analyzed using R version 4.1.1 (R Foundation for Statistical Computing).

Results

The NIH allocated \$1.38 billion to violence research from 2011 to 2020, 0.37% of total NIH funding during this time (Table). Of the 27 institutes/centers, 22 (81.48%) provided some level of funding for violence-related projects. Four institutes—the Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institute of Mental Health, National Institute on Drug Abuse, and National Institute on Alcohol Abuse and Alcoholism—accounted for 81.47% of funding for violence research.

There has been an overall decrease in NIH violence-related funding over time (Figure), from \$194.46 million to \$159.10 million (−18.19%; EAPC, −3.24% [95% CI, −6.19% to −0.19%]). However, this decrease was characterized by a decline to a low in 2015 followed by an increase to 2020. The percentage allocated to violence research decreased from 0.47% to 0.34% (−28.66%) (Table). There were 7 institutes allocating more than 0.5% of funding toward violence research; 4 decreased funding over time, including 3 of the 4 top funders. The largest absolute decrease occurred at the National Institute on Drug Abuse (from \$55.18 million to \$10.85 million; difference, −\$44.33 million; EAPC, −17.73% [95% CI, −19.19% to −16.24%]), with a relative decrease of −80.34%. A large relative decrease also occurred at the National Institute of Nursing Research (from \$2.70 million to \$0.14 million; relative decrease, −95.00%; EAPC, −27.31% [95% CI, −36.05% to −17.37%]). The largest absolute increase, which largely occurred after 2015, was at the National Institute of Child Health and Human Development (from \$34.59 million to \$52.01 million; difference, \$17.42 million; relative increase, 50.35%; EAPC, 4.60% [95% CI, 1.73% to 7.54%]). The largest relative increases were observed at the Fogarty International Center (from \$0.37 million to \$1.91 million; relative increase, 420.75%; EAPC, 26.31% [95% CI, 17.23% to 36.09%]) and the National Institute on Minority Health and Health Disparities (from \$1.97 million to \$10.92 million; relative increase, 453.51%; EAPC, 14.16% [95% CI, 7.56% to 21.15%]).

Discussion

Findings show an overall decrease in violence research funding at the NIH from 2011 to 2020, both in absolute dollars and percentage of funding dedicated to violence research, although funding declined from 2011 to 2015 and then increased. Significant variability by institute/center was observed, with decreased violence funding in the mental health, substance and alcohol use, and nursing institutes, of concern given the known effect violence has on mental health and substance and alcohol use and the leading role nursing plays in addressing social determinants of health.⁵

The NIH recently took steps to coordinate violence research efforts via establishment of a work group in the Office of Behavioral and Social Sciences Research,⁶ and findings of this study may suggest areas for improvement. Study limitations include reliance on the NIH's Research, Condition, and Disease Categorizations of Violence Research, which may limit what research is classified as violence, and exclusion of data from other government agencies that also fund violence research.

Notes

Section Editors: Jody W. Zylke, MD, Deputy Editor; Kristin Walter, MD, Associate Editor.

References

1. Ballreich JM, Gross CP, Powe NR, Anderson GF. Allocation of National Institutes of Health funding by disease category in 2008 and 2019. *JAMA Netw Open*. 2021;4(1):e2034890. doi: 10.1001/jamanetworkopen.2020.34890 [PMCID: PMC7841468] [PubMed: 33502486] [CrossRef: 10.1001/jamanetworkopen.2020.34890]
2. Sumner SA, Mercy JA, Dahlberg LL, Hillis SD, Klevens J, Houry D. Violence in the United States: status, challenges, and opportunities. *JAMA*. 2015;314(5):478-488. doi: 10.1001/jama.2015.8371 [PMCID: PMC4692168] [PubMed: 26241599] [CrossRef: 10.1001/jama.2015.8371]
3. Hankey BF, Ries LA, Kosary CL, et al.. Partitioning linear trends in age-adjusted rates. *Cancer Causes Control*. 2000;11(1):31-35. doi: 10.1023/A:1008953201688 [PubMed: 10680727] [CrossRef: 10.1023/A:1008953201688]
4. National Institutes of Health Office of Budget . Price indexes. Accessed November 17, 2021. <https://officeofbudget.od.nih.gov/gbipriceindexes.html>
5. National Institute of Nursing Research . Strategic plan: NINR strategic plan (2022-2026)—under development. Accessed December 15, 2021. <https://ninr.nih.gov/aboutninr/ninr-mission-and-strategic-plan>
6. National Institutes of Health Office of Behavioral and Social Sciences Research . About OBSSR: violence research initiatives. Accessed December 16, 2021. <https://obssr.od.nih.gov/about/violence-research-initiatives>

Figures and Tables

Table.

National Institutes of Health (NIH) Funding for Violence-Related Research From 2011 to 2020 by Funding Institute/Center

NIH funding institute	All projects		Violence-related research				Amount allocated to violence-related research, \$, in millions					Funding allocated to violence-related research, %	
	No.	Total funding, \$, in millions	No.	Total funding, \$, in millions	% of Total funding Institute	% of Total funding Violence	2011 ^a	2020	Change, \$	Change, %	EAPC (95% CI)	2011	2020
Overall ^b	733 263 ^c	368 463.53	4044 ^c	1380.60	0.37	100	194.46	159.10	-35.36	-18.19	-3.24 (-6.19 to -0.19)	0.47	0.34
Institutes allocating >0.5% of funding toward violence research													
NICHD	35 002	16 238.60	1084	363.61	2.24	26.34	34.59	52.01	17.42	50.35	4.60 (1.73 to 7.54)	1.83	2.86
NIMH	36 675	17 514.79	879	302.26	1.73	21.89	55.95	27.63	-28.32	-50.62	-9.30 (-13.10 to -5.33)	2.59	1.27
NIDA	26 121	13 791.12	760	270.16	1.96	19.57	55.18	10.85	-44.33	-80.34	-17.73 (-19.19 to -16.24)	3.85	0.63
NIAAA	13 125	5328.32	578	188.66	3.54	13.67	33.85	17.31	-16.55	-48.88	-5.61 (-8.81 to -2.30)	5.82	2.60
NIMHD	7318	3972.93	187	58.84	1.48	4.26	1.97	10.92	8.95	453.51	14.16 (7.56 to 21.15)	0.62	1.86
FIC	3953	1139.29	55	11.22	0.98	0.81	0.37	1.91	1.54	420.75	26.31 (17.23 to 36.09)	0.27	1.44
NINR	4237	1675.45	35	10.18	0.61	0.74	2.70	0.14	-2.57	-95.00	-27.31 (-36.05 to -17.37)	1.50	0.06
Institutes allocating <0.5% of funding toward violence research													

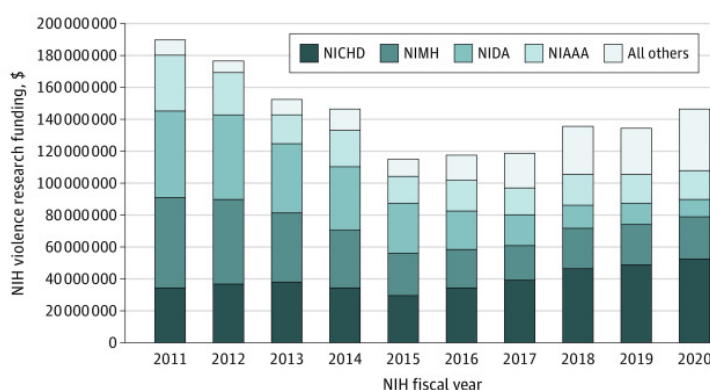
Abbreviations: CIT, Center for Information Technology; EAPC, estimated annual percentage change; FIC, Fogarty International Center; NCATS, National Center for Advancing Translational Sciences; NCCIH, National Center for Complementary and Integrative Health; NCI, National Cancer Institute; NCR, National Center for Research Resources; NEI, National Eye Institute; NHGRI, National Human Genome Research Institute; NHLBI, National Heart, Lung, and Blood Institute; NIA, National Institute on Aging; NIAAA, National Institute on Alcohol Abuse and Alcoholism; NIAID, National Institute of Allergy and Infectious Diseases; NIAMS, National Institute of Arthritis and Musculoskeletal and Skin Diseases; NIBIB, National Institute of Biomedical Image and Bioengineering; NICHD, Eunice Kennedy Shriver National Institute of Child Health and Human Development; NIDCD, National Institute on Deafness and Other Communication Disorders; NIDCR, National Institute of Dental and Craniofacial Research; NIDA, National Institute on Drug Abuse; NIDDK, National Institute of Diabetes and Digestive and Kidney Diseases; NIEHS, National Institute of Environmental Health Sciences; NIGMS, National Institute of General Medical Sciences; NIMH, National Institute of Mental Health; NIMHD, National Institute on Minority Health and Health Disparities; NINDS, National Institute of Neurological Disorders and Stroke; NINR, National Institute of Nursing Research; NLM, National Library of Medicine; OD, Office of the Director.

^a Adjusted to 2020 dollars.

^b Funding not allocated to violence research by the NEI, NIDCD, NIBIB, NCATS, and CIT (included in overall NIH funding).

^c Total may be more than actual number of projects awarded by the NIH due to projects being funded by multiple institutes.

Figure.



National Institutes of Health (NIH) Funding for Violence Research in Inflation-Adjusted Dollars, 2011-2020

Results are shown separately for the 4 institutes/centers with the most dollars allocated to violence research over the study period and the remaining institutes/centers combined. NIAAA indicates National Institute on Alcohol Abuse and Alcoholism; NICHD, Eunice Kennedy Shriver National Institute of Child Health and Human Development; NIDA, National Institute on Drug Abuse; and NIMH, National Institute of Mental Health.