# NIH Office of Behavioral and Social Sciences Research

# **Research Directions for the Behavioral and Social** Sciences at the NIH

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# **NIH-Wide Strategic Plan**

# Cross-cutting Themes

- Improving Minority Health and Reducing Health Disparities
- Enhancing Women's Health
- Addressing Public Health Challenges Across the Lifespan
- Promoting Collaborative Science
- Leveraging Data Science for Biomedical Discovery

https://www.nih.gov/about-nih/nih-wide-strategic-plan





# **OBSSR Mission and Strategic Plan**

### Mission

- Enhance the impact of health-related behavioral and social sciences research
- Coordinate behavioral and social sciences research conducted or supported by the NIH and integrate these sciences within the larger NIH research enterprise
- Communicate health-related behavioral and social sciences research findings to various stakeholders within and outside the federal government

https://obssr.od.nih.gov/





# Total NIH BSSR funding by FY

\*based on RCDC categorical spending





# Number of new BSSR grants funded by IC in FY21





## **BSSR** Content Areas





## Number of new BSSR grants by content area in FY21

\*content areas are not mutually exclusive







### Key milestones during 40 years of behavioral medicine at the National Institutes of Health

Susan M. Czajkowski^1 · William T. Riley<br/>² · Catherine M. Stoney $^3$  · William M. P. Klein<br/>^1 · Robert T. Croyle^1

- 1974 NHLBI Behavioral Medicine Branch
- 1976 Behavioral Medicine Study Section
- 1979 NIA Division of Social and Behavioral Sciences
- 1981 IOM "Health and Behavior" Report
- 1983 NIMH AIDS Research Program
- 1995 OBSSR established (enacted by Congress in 1993)
- 1997 NCI Division of Cancer Control and Population Sciences
- 2004 ACD report Basic Behavioral and Social Sciences
- 2009 NIH Opportunity Network (OppNet)
- 2020 Council of Councils WG on bBSSR

# TBM

### COMMENTARY/POSITION PAPER

Twenty-five years of the National Institutes of Health Office of Behavioral and Social Sciences Research

William T. Riley<sup>®</sup>, Dana Greene-Schloesser, Dara R. Blachman-Demner, Michael Spittel

- Training the Next Generation of Researchers
- Stimulating Emerging Behavioral and Social Science Areas Relevant to the NIH Mission
- Integrating Behavioral and Social Sciences Research within the Larger NIH Biomedical Research Enterprise



# **Responses to Recent Public Health Crises**





### **Behavioral Research to Improve Medication-Based** Treatment

### **Overview**

### The Research Need

Medication-based treatment is an established and effective intervention for people with opioid use disorder (OUD). Medications for people with OUD include methadone. buprenorphine/naloxone. buprenorphine. and naltrexone. However, the people who would benefit from these medications often do not receive them or stay on them only a short time, which limits their chances for long-term recovery.

#### **Research Spotlights**



Intervention for Young People Aims to Lift **Barriers to Treatment for Opioid Use** Disorder

### **Justice Community Opioid Innovation Network**

### **Overview**

### The Research Need

Many people with opioid use disorder (OUD) pass through the criminal justice system. Improved access to highguality, evidence-based addiction treatment in justice settings will be critical to addressing the opioid crisis.

### About the Program

The Helping to End Addiction Long-term<sup>™</sup> Initiative, or NIH HEAL Initiative<sup>SM</sup>, will support the Justice Community Opioid Innovation Network (JCOIN) to study approaches to increase high-guality care for people with opioid misuse and OUD in justice settings. JCOIN will test

strategies to expand effective treatment and care in partnership with local and state justice systems and communitybased treatment providers.







### **HEALing Communities Study**

The HEALing Communities Study will test the integration of prevention, overdose treatment, and medication-based treatment in select communities hard hit by the opioid crisis. This comprehensive treatment model will be tested in a coordinated array of settings, including primary care, emergency departments, and other community settings. Findings will establish best practices for integrating prevention and treatment strategies that can be replicated by communities nationwide.

## NIH HEAL INITIATIVE

HEALing Communities **Study** 

HEAL Initiative: Notice of Special Interest (NOSI) regarding the Availability of Administrative Supplements to Support Strategies to Reduce Stigma in Pain Management and Opioid Use Disorder (OUD) and Treatment

Notice Number: NOT-OD-20-101



## FY20 and FY21 Appropriations Report Language for Firearm Injury and Mortality Prevention Research

- **\$12.5M each year** to conduct research on firearm injury and mortality prevention
- Recommended the NIH take a comprehensive approach to studying underlying causes and evidence-based methods of prevention of injury, including crime prevention
- All grantees required to fulfill requirements around open data, open code, pre-registration of research projects, and open access to research articles
- Ensure that such awards support ideologically and politically unbiased research projects
- None of the funds made available in this title may be used, in whole or in part, to advocate or promote gun control



# Firearm Violence Prevention Research (FY20, FY21)

- ▶ <u>PAR-20-143</u>: Two-year R61 awards for pilot, exploratory, or developmental projects
  - 7 awards
  - "Evaluating implementation and feasibility of evidence-based universal screening and intervention strategies for firearm injury and mortality prevention among youth and adults in emergency departments" (PI: Chethan Sathya; <u>1R61HD104566-01</u>)
  - "Family Safety Net: Developing an upstream suicide prevention approach to encourage safe firearm storage in rural and remote Alaskan homes" (PI: Lisa Wexler; <u>1R61MH125757-01</u>)
- ► <u>PAR-21-192</u>: Three-year R01 awards
  - 8 awards
  - "A Nationwide Case-Control Study of Firearm Violence Prevention Tactics and Policies in K-12 Schools" (PI: Charles Branas; 1R01HD108027-01)
  - "Risk prediction and optimizing outcomes to 1-year after firearm injury among children using emergency services in the US" (PI: Craig Newgard; 1R01HD108017-01)
  - "Preventing Firearm Violence in Youth: A hospital-based prevention strategy" (PI: Nicholas David Thomson; 1R01HD108025-01)



### Notice of Intent to Publish a Funding Opportunity Announcement for Research on Community Level Interventions to Prevent Firearm and Related Violence, Injury and Mortality

Notice Number: NOT-OD-22-028 **Key Dates** November 30, 2021 **Release Date:** Estimated Publication Date of Funding Opportunity January 27, 2022 Announcement: April 22, 2022 **First Estimated Application Due Date:** September 01, 2022 **Earliest Estimated Award Date:** October 01, 2022 Earliest Estimated Start Date: **Related Announcements** None

### Issued by

Office of Behavioral and Social Sciences Research (OBSSR)

### Purpose

The National Institutes of Health (NIH) intends to publish one or more Funding Opportunity Announcements (FOAs) to invite applications for community and community organizational level interventions to prevent firearm and related violence, injury and mortality. Applications will be encouraged to include multiple levels of intervention and/or multiple sectors (e.g., health, education, justice) when appropriate and to be developed in partnership with communities and/or community organizations. Given that violence and suicide have a number of causes, NIH will take a comprehensive approach to studying these underlying causes and evidence-based methods of prevention of injury, including crime prevention. All applicants will be expected to fulfill requirements around open data, open code, pre-registration of research projects, and open access to research articles. Funded awards will support ideologically and politically unbiased research projects. Applications are not being solicited at this time, but NIH plans to publish one or more FOAs in December for funding to begin in FY 2022.



## **Structural Racism**

### UNITE

### **₹ 1 1 1**



### Department of Health and Human Services

### Part 1. Overview Information

Participating Organization(s)	National Institutes of Health (NIH)
Components of Participating Organizations	Office of Strategic Coordination (Common Fund)
	This Funding Opportunity Announcement (FOA) is developed as a Common Fund initiative ( <u>http://commonfund.nih.gov/</u> ) through the NIH Office of the NIH Director, Office of Strategic Coordination ( <u>https://dpcpsi.nih.gov/</u> ). All NIH Institutes and Centers participate in Common Fund initiatives. The FOA will be administered by the National Institute of Dental and Craniofacial Research (NIDCR), ( <u>http://www.nidcr.nih.gov</u> ) on behalf of the NIH.
Funding Opportunity Title	Transformative Research to Address Health Disparities and
	Advance Health Equity (U01 Clinical Trial Allowed)
Activity Code	U01 Research Project – Cooperative Agreements
Announcement Type	New
Related Notices	<ul> <li>May 21, 2021 - Notice of Addition of Information for RFA-RM-21-021. See Notice NOT-RM-21-027.</li> <li>April 12, 2021 - Notice of Pre-Application Webinar for Funding Opportunities on Transformative Research to Address Health Disparities and Advance Health Equity. See Notice NOT-RM-21-025.</li> </ul>
Funding Opportunity Announcement (FOA) Number	RFA-RM-21-021

### About

The UNITE initiative was established to identify and address structural racism within the NIH-supported and the greater scientific community. With representation from across the NIH Institutes and Centers, UNITE aims to establish an equitable and civil culture within the biomedical research enterprise and reduce barriers to racial equity in the biomedical research workforce. To reach this goal, UNITE is facilitating research to identify opportunities, make recommendations, and develop and

### More Information

- UNITE Events
- UNITE Milestones & Progress

implement strategies to increase inclusivity and diversity in science. These efforts will bolster the NIH's effort to continue to strive for diversity within the scientific workforce and racial equity on the NIH campus and within the extramural community.

- 11 grants totaling \$58M over 5 years
- NOITP to Reissue with March 25, 2022 receipt date



# Social and Behavioral Sciences Responses to the COVID-19 Pandemic



# COVID-19 Survey Repository

PhenX Toolkit     Register     Subscription				
Home Protocols - COVID-19 - Search - Resources - News - Help - About - Cite PhenX Contact 🌲 Tree 보 📼	Aa- Aa Aa+			
Search: Search all protocols in the Toolkit using keywords (e.g. diabetes) or PhenX ID (e.g. 011502)	Search all protocols in the Toolkit using keywords (e.g. diabetes) or PhenX ID (e.g. 011502) Q Advanced Search			
Home » Covid19				

### New COVID-19 Research Collections, click here.

### **COVID-19 Protocol Library**

The PhenX COVID-19 library provides COVID-19 related measurement protocols (CRFs, DCFs, instruments, surveys, questionnaires) that are *currently in use*. We hope that investigators will consider choosing from these protocols rather than developing new ones. The source of each protocol has been verified and contact information is provided in case additional information is needed. In the future, we plan to provide data dictionaries to enhance data interoperability and to support data harmonization. *Modules* are subsets of full instruments. Full instrument can be found through Sort by Source. Please note, these protocols have not been selected via the standard PhenX consensus process and cannot be considered broadly validated; investigators are encouraged to perform validation studies.

Another important resource is the **NIH Public Health Emergency and Disaster Research Response (DR2)**. The NIH DR2 provides a wide array of data collection tools and resources for use in public health emergencies and disasters, including the COVID-19 pandemic. To visit the NIH DR2, click here.

SEAN is a network of experts in the social, behavioral, and economic sciences poised to assist decision makers at all levels as they respond to COVID-19. To visit SEAN, click here.



Resource Type: Survey/Questionnaire

Common Data Elements

Electronic Data Capture

>

Used

(EDC)

Ease of Use

Description: The Policy and Communication Evaluation (PACE) Vermont Study is a partnership between the University of Vermont and the Vermont Department of Health to understand the impact of state-level policies and communication campaigns on substance use beliefs and behaviors in young Vermonters ages 12-25. Consisting of 9 online surveys from March 2019 to December 2021, the goal was to capture time-sensitive changes in perceptions and patterns associated wi... Date Published: 01/01/2022





# Social, Behavioral, and Economic Impacts of COVID-19 (SBE)

- The effects of various mitigation strategies on reducing transmission and the role of adherence to these strategies
- The social and economic impacts of various mitigation efforts
- The **downstream effects** of these impacts on mental health, suicide, substance abuse, violence, and other disorders
- The effects of the pandemic and its mitigation on health care access and on health outcomes especially in chronic diseases
- The effects of **interventions**, including telehealth, digital health interventions, and community interventions, in reducing these impacts



### Social, Behavioral, and Economic COVID Accomplishments

Executive Committee	<ul> <li>Identified goals and priorities for the SBE Initiative</li> <li>Collaborated with IC Directors and funded 52 supplements using OD Jumpstart and IC pooled funds</li> <li>Developed Data Harmonization document, "COVID-19 Assessment Recommendations for SBE Supplement Grantees"</li> <li>Published commentary, "<u>NIH social and behavioral research in response to the SARS-CoV2 Pandemic</u>"</li> </ul>
(iii) Interventions	<ul> <li>Developed and published the <u>digital health</u> and <u>community health</u> Interventions NOSIs</li> <li>Developed and published <u>digital health</u> and <u>community</u> interventions PARs for FY21</li> <li>Funded 24 supplements to date (supplements accepted through FY21)</li> </ul>
Data Science	<ul> <li>Supplemented Longitudinal Studies <ul> <li>Developed guidance to establish expectations for <u>data harmonization and sharing</u></li> <li>Funded 28 supplements to date</li> <li>Developed and published a <u>population data science consortium</u> PAR for FY21</li> </ul> </li> <li>Rapid Research on COVID/Economic Health Impacts <ul> <li>National Bureau of Economic Research (NBER) to conduct economic research on COVID-19</li> <li>Supplemented Institute for Health Metrics and Evaluation (IHME) to conduct county level disparities recearch</li> </ul> </li> </ul>



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### RADX – COVID-19 TESTING RESEARCH

	Project	Description
Ŷ	RADx Tech	Highly competitive, rapid three-phase challenge to identify the best candidates for at-home or point-of-care tests for COVID-19
	RADx-Advanced Testing Program (RADx-ATP)	Rapid scale-up of advanced POC technologies to accelerate and enhance and validate throughput – and support of ultra-high throughput machines and facilities
Q	RADx-Radical (RADx-rad)	Develop and advance novel, non-traditional approaches or new applications of existing approaches for testing
	RADx-Underserved Populations (RADx-UP)	Interlinked community-engaged projects focused on implementation strategies to enable and enhance testing of COVID-19 in underserved and/or vulnerable populations



## RADX-UP

- **Overarching Goal**: Enhance COVID-19 testing among underserved and vulnerable populations across the US
- Develop/create a **consortium of community-engaged research projects** designed to rapidly implement testing interventions
- Strengthen the available data on disparities in infection rates, disease progression and outcomes, and identify strategies to reduce these disparities in COVID-19 diagnostics







### Map of Phase I and Phase II Projects

As of July 2021, RADx-UP Projects are now in all US states as well as American Samoa, District of Columbia, Guam, Northern Mariana Islands, Puerto Rico, and US Virgin Islands.



#### **Communities Served** NUMBER OF PROJECTS

### Hispanic or Latino/a/x





People who are

incarcerated

Black or African American

#### .......... 00000000000 Older adults

............ 00000000000 00000000000



36



Pregnant women

000000

American Indian

0000000





School

Public

housing

Community Urban health center

In-home

Rural

....

### Settings Served



National Institutes of Health Office of Behavioral and Social Sciences Research

### ŏΖ Alaska Native



# **COVID-19 Vaccination\* Communication:**

Applying Behavioral and Social Science to Address Vaccine Hesitancy and Foster Vaccine Confidence\*\*

### **Three Communication Considerations**



### Do's

- ✓ Tailor message to the information needs and values of the intended audience.
- ✓ Appeal to positive emotions (hope, caring for others).
- ✓ Make vaccination the easy choice.
- ✓ Use appealing formats: simple graphics, videos, personal narratives.
- Use accessible language and ensure culturally sensitive translation into other languages.
- ✓ Frame vaccination as a social norm.
- ✓ Support people in making informed decisions about vaccination.
- ✓ Emphasize unity and message consistency across the political spectrum.
- ✓ Adapt to diverse platforms by partnering with traditional and social media outlets.
- ✓ Monitor misinformation and respond when appropriate.

Don'ts

- ✗ Use a "one size fits all" approach.
- ✗ Incite negative emotions, such as fear and shame.
- ★ Use judgmental language that may alienate some people.
- ★ Use directive language to suggest vaccination is a requirement or mandate.
- ★ Overwhelm with complicated statistics and lengthy scientific explanations.
- Set unrealistic expectations about vaccine availability.
- Exaggerate the vaccine's ability to instantly end the pandemic.
- ✗ Dismiss widely shared concerns about side effects or adverse outcomes.
- Repeat the same message in the same way, inducing message fatigue.
- ✗ Politicize COVID-19 vaccination.



Check for updates



# A better science for better decision-making in future crises

In fast-paced crises like COVID-19, making use of scientific discovery in policymaking is challenging. We should learn the lessons of the current pandemic to make science a better partner to decision-makers in future crises, Sandro Galea writes.

Credit: Kelly Davidson.

- Grounded in prior research and in expert input based on prior knowledge
- Humility about what we know and the boundaries of our knowledge
- Science is only part of the decision-making input



world view

## Additional Lessons from COVID

- Education in what science is and is not, and how to be better consumers of scientific findings
- Neither the media nor politicians are good communicators in a public health crisis
- Social and behavioral public health strategies do not get the rigorous scientific testing that biomedical strategies receive (no safety and efficacy RCTs for mitigation)
- Common sense is important but no substitute for scientific inquiry (idiosyncratic experience, confirmatory bias)
- Can we accelerate the conduct of social and behavioral research questions? (e.g., leverage existing research networks)
  - Vaccine trials leveraged HIV CTNs
  - Testing trials leveraged NIBIB's POCTRN
  - A public health communications testing network or center?

### "Pfizer vaccine is 95% effective"

- Does not mean that 5% of those vaccinated will get COVID
- 8 of 22K in vaccinated arm: 0.036%
- 162 of 22K in the unvaccinated arm: 0.7%
- 1- (8/162) = .95 or 95%
- And the primary goal of vaccines is to prevent serious illness (hospitalizations and deaths), not cases.



### CDC Stands Up New Disease Forecasting Center

### **Press Release**

For Immediate Release: Wednesday, August 18, 2021 **Contact:** <u>Media Relations</u> (404) 639-3286

Today, the Centers for Disease Control and Prevention (CDC) is announcing a new center designed to advance the use of forecasting and outbreak analytics in public health decision making. Once established, the Center for Forecasting and Outbreak Analytics will bring together next-generation public health data, expert disease modelers, public health emergency responders, and high-quality communications, to meet the needs of decision makers. The new center will accelerate access to and use of data for public health decision-makers who need information to mitigate the effects of disease threats, such as social and economic disruption. The center will prioritize equity and accessibility, while serving as a hub for innovation and research on disease modeling. The center, with initial funding from the American Rescue Plan  $\square$ , will focus on three key functions:

- Predict: Undertake modeling and forecasting; enhance the ability to determine the foundational data sources needed; support research and innovation in outbreak analytics and science for real-time action; and establish appropriate forecasting horizons.
- Connect: Expand broad capability for data sharing and integration; maximize interoperability with data standards and utilize open-source software and application programming interface capabilities, with existing and new data streams from the public health ecosystem and beyond.
- Inform: Translate and communicate forecasts; connect with key decision-makers across sectors including government, businesses, and non-profits, along with individuals with strong intergovernmental affairs and communication capacity for action.

Will it adequately account for social and behavioral influences?



# Additional Directions of the Behavioral and Social Sciences at the NIH



# Two BSSR Working Groups of the NIH Council of Councils

- Trans-NIH Research Opportunities in the Basic Behavioral and Social Sciences
  - Identify Promising and Emerging Areas in bBSSR and how to address them
  - Report to the Council of Councils and NIH Director on May 21, 2021
- Behavioral and Social Sciences Research Integration
  - The report language of the House Appropriations Bill, 2021 (<u>H. Rpt. 116-450)</u> included
    - "The Committee directs the Director to convene a special advisory panel of behavioral scientists and other community experts to complete an assessment providing recommendations on how to better integrate and realize the benefits to overall health from behavioral research at NIH."
  - First meeting on April 1, 2021; Plan to present report to CofC in May 2022



# CofC Report on bBSSR: Promising and Emerging Areas

- 1. Behavioral, cognitive, and social neuroscience, specifically event representation, understudied brain regions, and integration of brain–body processes
- 2. Epigenetics
- 3. Basic functions of sleep and sex
- 4. Infectious disease-related basic behavioral and social processes
- 5. Social interactions and influences on health
- 6. Maintaining behavior change
- 7. Positive health processes
- 8. Science of science
- Transitioning OppNet into new NIH-ICD executive committee (new format/new name)
- BSSR-CC WG on implementation of Report Recs: Co-chairs from NICHD, NIA, & NEI



# Integration of BSSR at the NIH



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### SHORT REPORT

### INTEGRATING BEHAVIORAL AND SOCIAL SCIENCES RESEARCH AT THE NATIONAL INSTITUTES OF HEALTH, U.S.A.

NORMAN B. ANDERSON

Office of Behavioral and Social Sciences Research, National Institutes of Health, Building 1, Room 326, 1 Center Drive, Bethesda, MD 20892-0183, U.S.A.

Abstract—Readers of Social Science & Medicine may find it interesting to know that in 1993 the United States Congress established the Office of Behavioral and Social Sciences Research (OBSSR) at the National Institutes of Health (NIH) in the belief that scientific research on behavioral and social factors in order to facilitate a growth in this important area of research. As is discussed in this paper, the philosophy of the OBSSR is that, although discoveries in the behavioral and social sciences are as critical for health as those from the biomedical sciences, knowledge from both areas must ultimately be integrated. Such integration will accelerate our understanding and treatment of physical and mental illnesses in both the developed and the developing world. This paper briefly presents the scientific evidence supporting this philosophy, outlines the mandated responsibilities of the OBSSR, and discusses some of its current and planned activities. © 1997 Elsevier Science Ltd. All rights reserved

Council of Councils Report to be completed in May, 2022



### BSSR in NIH-Wide Transdisciplinary Research Programs



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Questions? Bill Riley: william.riley@nih.gov





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