

Behavioral and Social Science at the NIH: New and Emerging Directions

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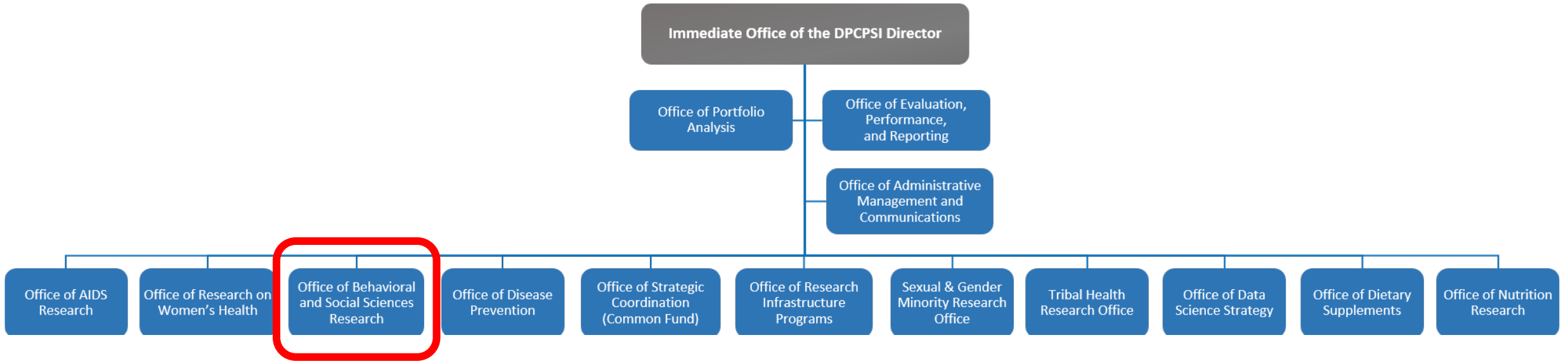
National Institutes of Health

Office of Behavioral and Social Sciences Research

Office of Behavioral and Social Sciences Research (OBSSR)

- At Congressional direction, OBSSR was established in 1995 in recognition of the importance of health-related behavioral and social sciences and their contributions to the NIH 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

OBSSR



- ▶ Integration of BSSR into the broader biomedical research efforts consistent with the NIH mission
- ▶ Coordination and collaboration with the ICs on cross-cutting and high priority BSSR across the NIH
- ▶ Identify and help address critical challenges that are barriers to advancement in BSSR
- ▶ Focus on challenges that OBSSR is uniquely positioned to address

OBSSR Strategic Plan: 2017-2021



Improve the Synergy of Basic and Applied BSSR



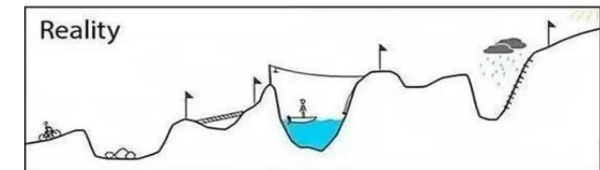
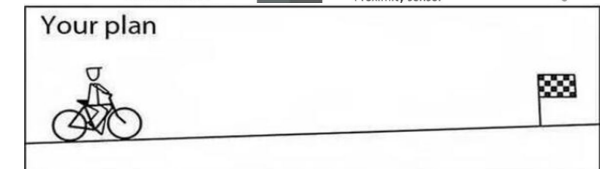
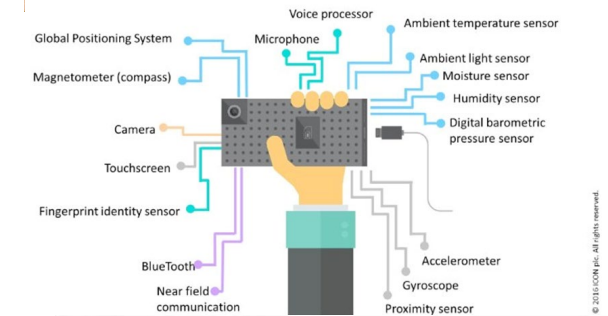
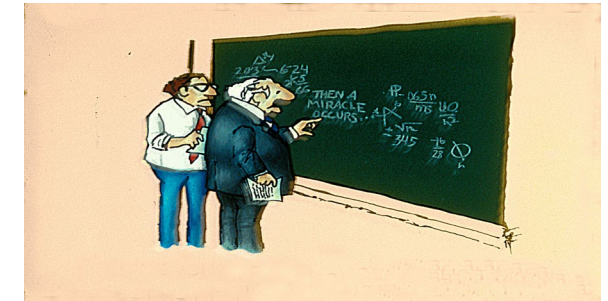
Enhance the Methods, Measures, and Data Infrastructures to Encourage a More Cumulative BSSR



Facilitate the Adoption of BSSR Findings in Health Research and Practice

New OBSSR Strategic Plan will be released in 2023!

- Kept the three broad scientific priorities but with updated language and objectives
- Including new cross-cutting themes: 1) BSSR integration across NIH research; 2) Science of science; 3) Diversity, equity, inclusion, and accessibility; 4) Training and capacity building



OBSSR Leadership



Christine Hunter, Ph.D., ABPP
Acting Director, OBSSR
Associate Director for
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Health Scientist Administrator



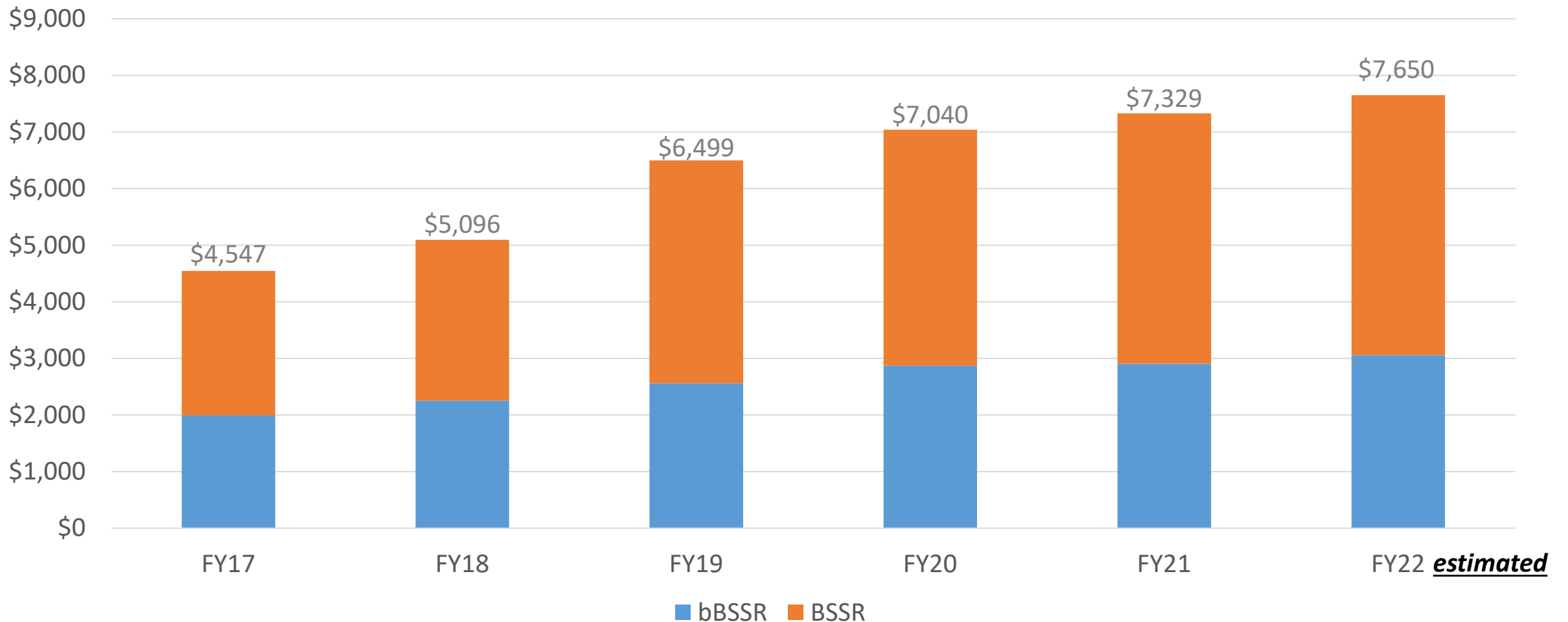
**Deborah Young-Hyman, Ph.D.,
CDE**
Health Scientist Administrator

Definition of Behavioral and Social Science Research (BSSR) at the NIH

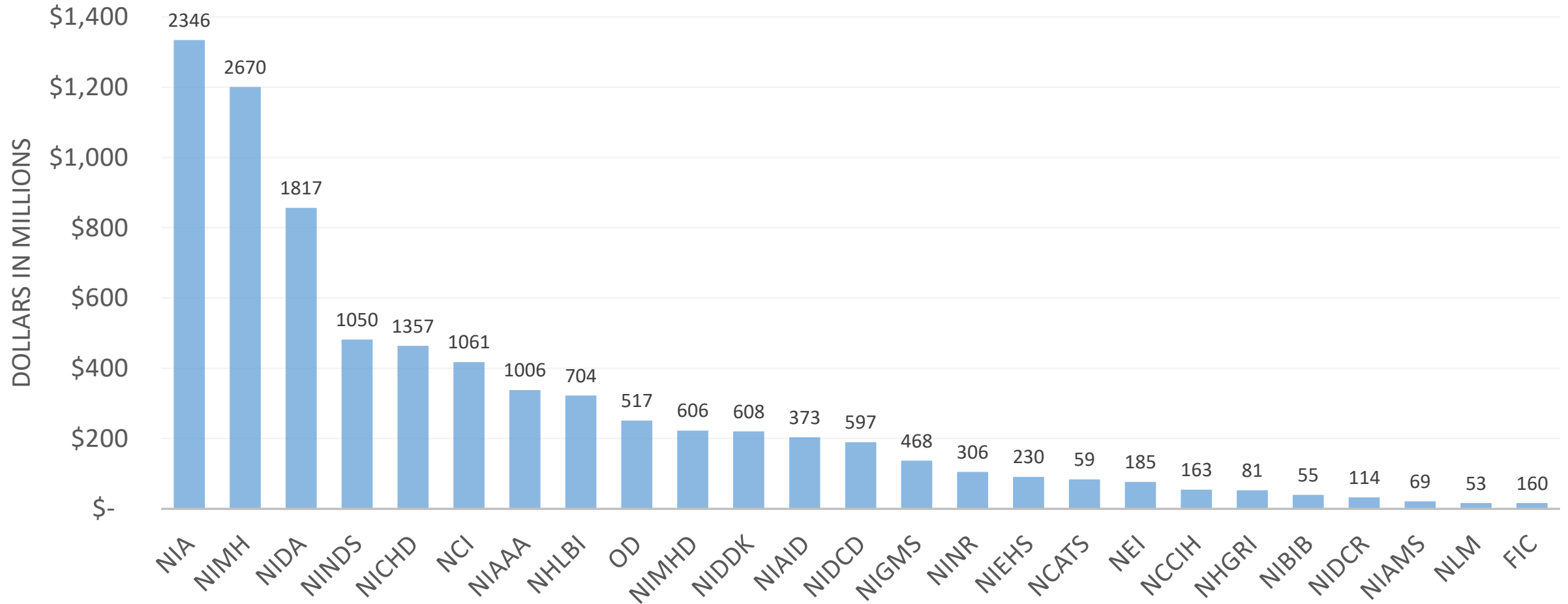
- BSSR at the NIH involves the systematic study of behavioral and social phenomena relevant to health.
 - “**Behavioral phenomena**” refers to the observable actions of individuals or groups and to mental phenomena such as knowledge, attitudes, beliefs, motivations, perceptions, cognitions, and emotions.
 - “**Social phenomena**” refers to the interactions between and among individuals, and to the characteristics, structures, and functions of social groups and institutions, such as families, communities, schools, and workplaces, as well as the physical, economic, cultural, and policy environments in which social and behavioral phenomena occur.
 - “**Health**” refers to state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (as per WHO).

<http://obssr.od.nih.gov/about/bssr-definition>

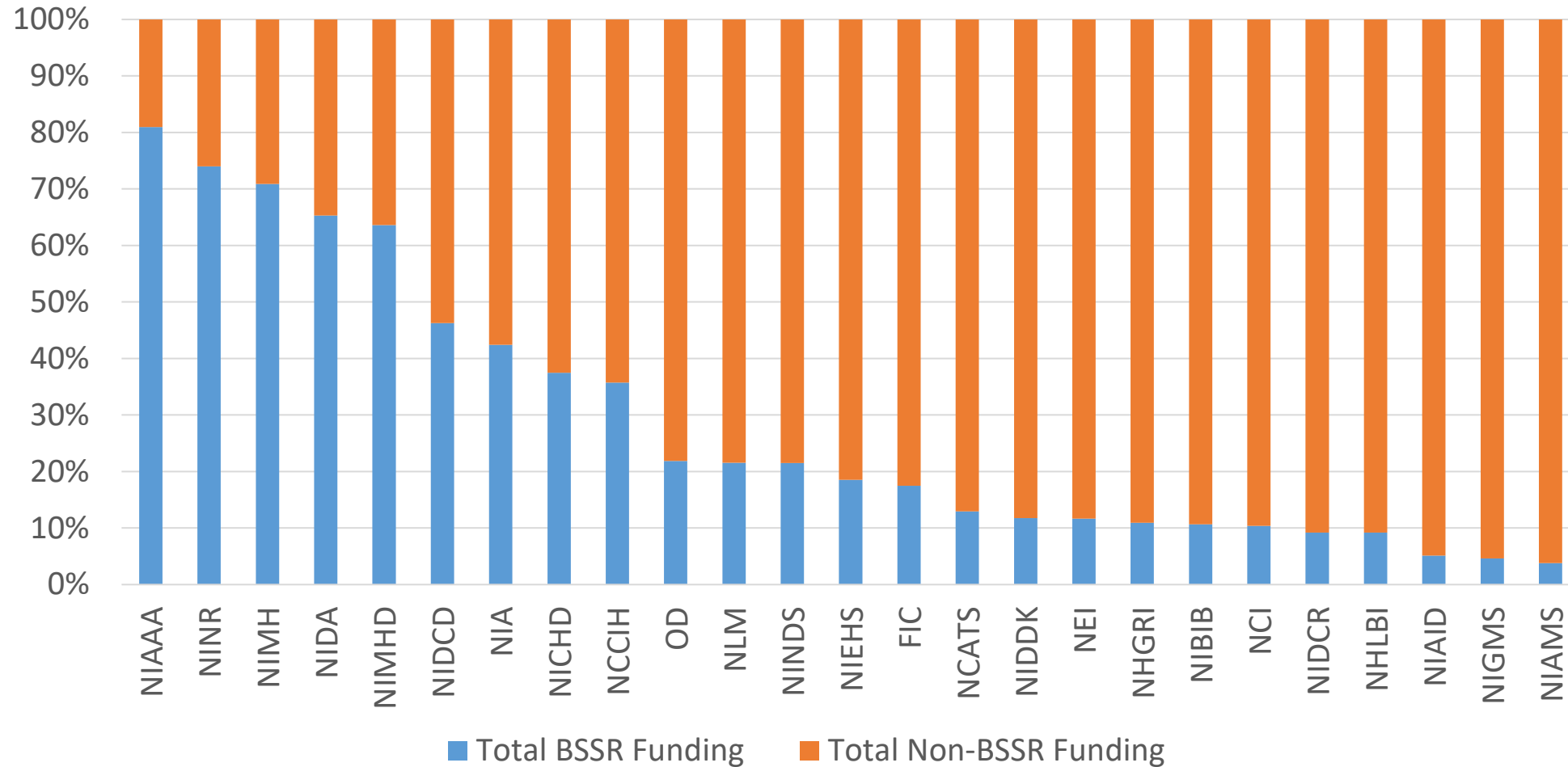
NIH BSSR and bBSSR Funding by FY



New BSSR Funded by ICs in FY21



BSSR Funding as a Percent of Overall Research Funding (FY21)





National Institutes of Health
Office of Behavioral and Social Sciences Research

Integration of Behavioral and Social Sciences Research at the National Institutes of Health (NIH)

NIH Council of Councils Working Group Report

https://obssr.od.nih.gov/sites/obssr/files/inline-files/BSSR_IntegrationWorkingGroupReport_508.pdf



Congressional Language

“The Committee believes that a more robust and focused NIH commitment to behavioral science research and training would yield significant improvements to the nation’s health due to the important connections between behavior and health. Most of the leading public health issues facing our nation—including cancer, addiction, heart disease, mental illness, diabetes, violence, and AIDS—are rooted in individual and social behavior, yet behavioral science is decentralized across NIH’s Institutes and Centers, and the NIH commitment to manage and directly fund this important research is limited. 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.** The Committee requests that this assessment be finalized before the end of fiscal year 2021* and that a report be submitted to the Committee at that time.”

* Given an extension until the end of FY22

Summary of Working Group Recommendations

- **Strategic Plans**: Greater inclusion and integration in IC and NIH-wide Strategic Plans
- **Staffing**: Evaluate and monitor the distribution of BSSR staff across NIH
- **Advisory Council**: Bring IC Advisory Council BSSR representation into alignment with the policy
- **Peer Review**: Ongoing monitoring to ensure review panels adequately reflect BSSR knowledge and expertise
- **Funding**: ICs with nominal BSSR portfolios should work with the OBSSR to identify opportunities to increase the application of BSSR in their research and training initiatives. Increase centers, resource grants, and trial networks that include BSSR capacity and focus
- **Resources for OBSSR**: Increase resources allocated to the OBSSR for staff and initiatives
- **Policies**: Engage BSSR expertise throughout the development and implementation of new research policies and practices
- **Cross-Cutting Recommendations**: Enhance 1) Approaches to Measurement of NIH Funding, 2) Diversity of the NIH and Extramural Research Workforce, 3) Foster Team Science and Multidisciplinary Integration, 4) Enhance the Conduct of Science

Not your Mother's NIH



Departing comments: Dr. Francis Collins

Dec 7, 2021, NPR: "Boy, there are things about human behavior that I don't think we had invested enough into understanding."

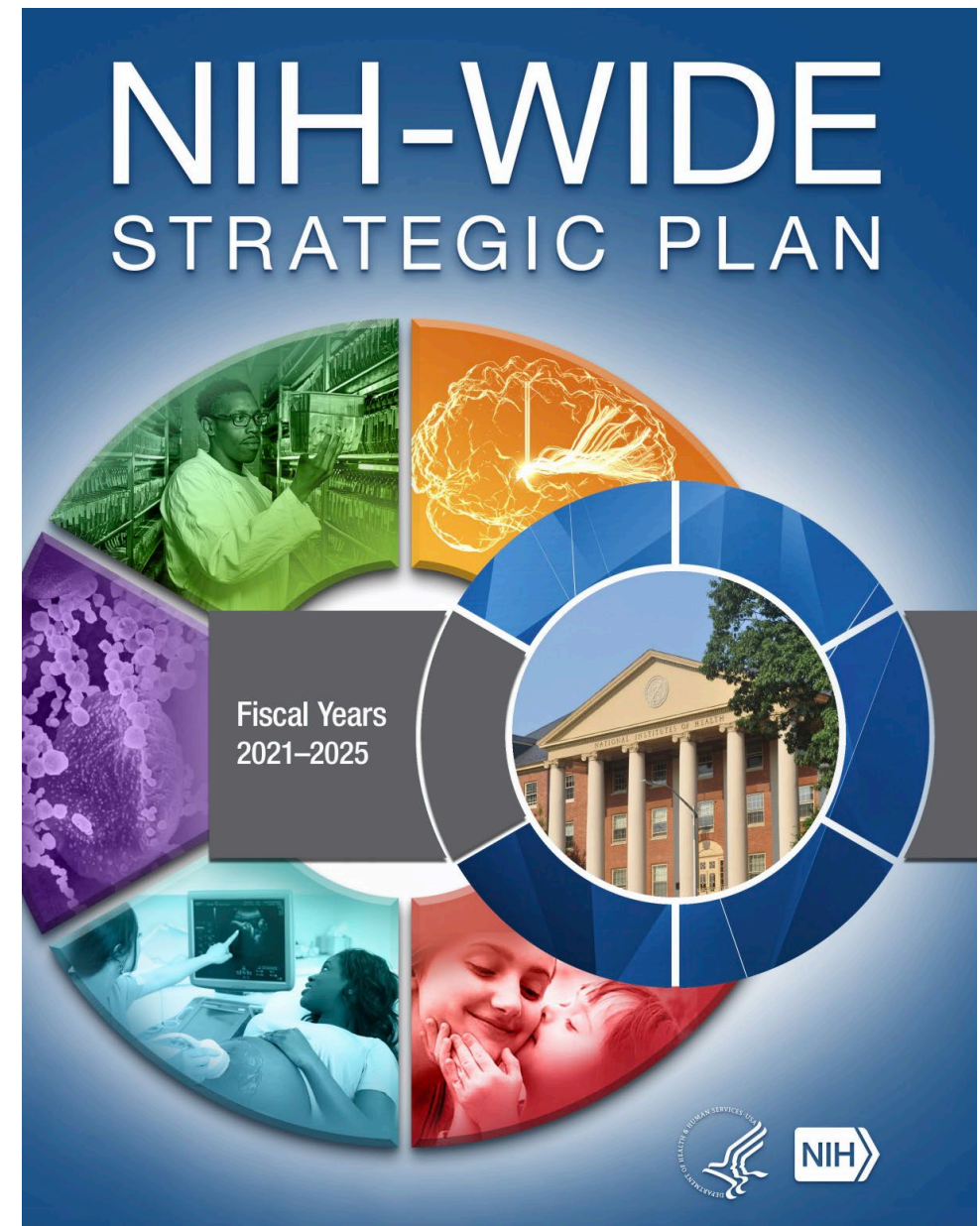
Dec 21, 2021, MSNBC "'You know, maybe we underinvested in research on human behavior. I never imagined a year ago, when those vaccines were just proving to be fantastically safe and effective, that we would still have 60 million people [in the United States] who had not taken advantage of them because of misinformation and disinformation that somehow dominated all of the ways in which people were getting their answers. And a lot of those answers were, in fact, false. And we have lost so much as a result of that."

NIH-Wide Strategic Plan

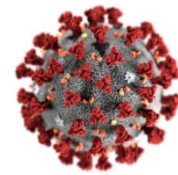
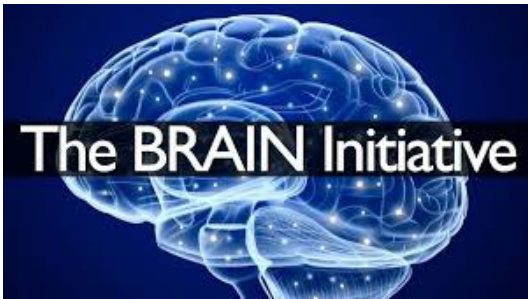
Cross-cutting Themes

- 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

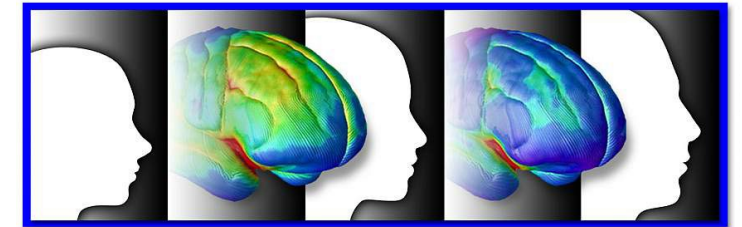
<https://www.nih.gov/about-nih/nih-wide-strategic-plan>



BSSR in NIH-Wide Research



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



Adolescent Brain Cognitive Development

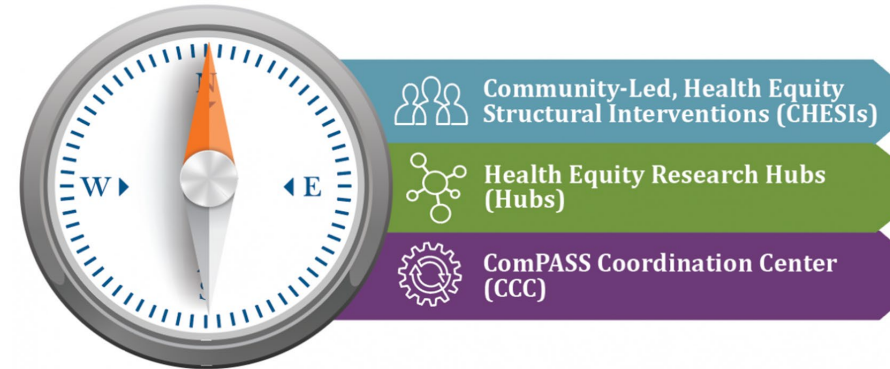


Community Partnerships to Advance Science for Society (ComPASS)

What is ComPASS?

- Supported by the NIH Common Fund
- Health Equity Focus
- Community-Led
- Leveraging Structural Interventions and Multi-Sectoral Partnerships
- Intervening on Social Determinants of Health
- Improve Health Outcomes
- Reduce Health Disparities
- Advance Health Equity Research

HEALTH EQUITY



GOALS

1. To catalyze, deploy, and evaluate community-led health equity structural interventions that leverage partnerships across multiple sectors to reduce health disparities
2. To develop a new health equity research model for community-led, multisectoral structural intervention research across NIH and other federal agencies

ComPASS Website: <https://commonfund.nih.gov/compass>

NIH Common Fund: Advancing Health Communication Science and Practice

Why is a research program needed?

- A changing communication ecosystem
- Increased spread of misinformation that has particularly concerning effects on underserved populations
- Scientific distrust

What are the goals of this program?

- Investigate, develop, test, and disseminate new approaches for effective health communication
- Ensure equity in new health communication approaches
- Measure communication exposure and impact, address misinformation, engage communities, and build trust



For more information visit: commonfund.nih.gov/healthcommresearch

Firearm Injury and Mortality Prevention Research

- **\$12.5M** in appropriated funds in FY20 – FY22
 - *Appropriations language notes that research must be **ideologically and politically unbiased**, that **no funds can be used to advocate or promote gun control**, and that grantees must fulfill **open data, open code, pre-registration** of research projects, and **open access** requirements.*
- **FY20-21:** FOAs built on existing NIH research portfolio and addressed emerging opportunities
 - Broad public health approach: healthcare and community settings; multi-level considerations; victimization and perpetration risk; inclusive of developmental stage, gender, disparity population, comorbid condition, other special population



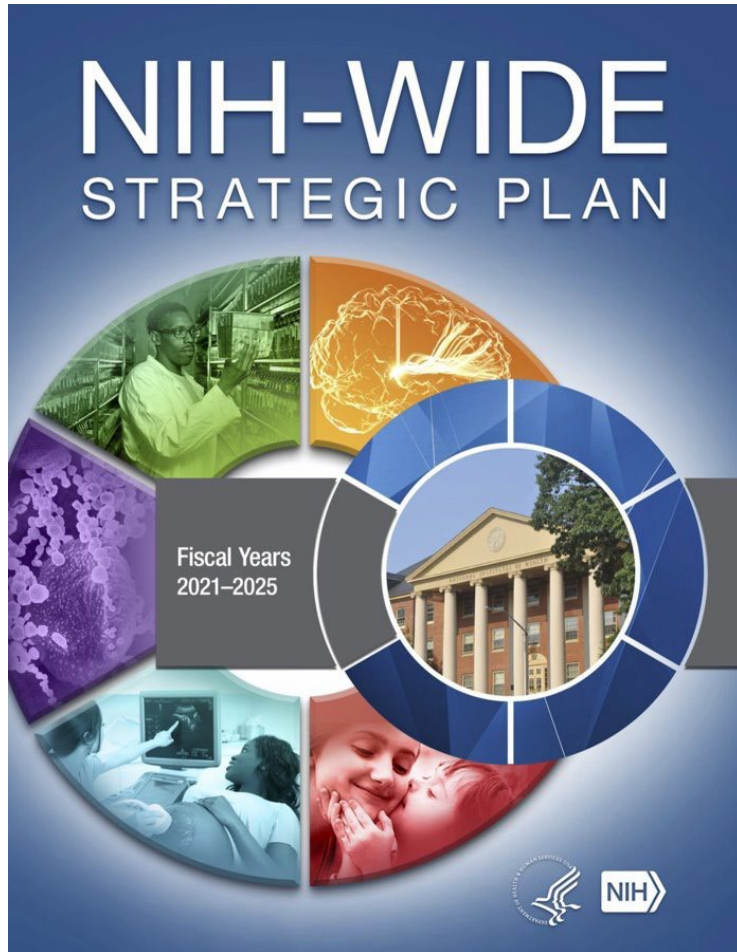
Firearm Injury and Mortality Prevention Research

- **FY22/23:** Research on Community Level Interventions for Firearm and Related Violence, Injury and Mortality Prevention
 - Includes **coordinating center and research sites** that formed a network to develop and test prospective interventions at the community or community organization level
- **FY23:** Career Enhancement Award to Advance Research on Firearm Injury and Mortality Prevention (K18 Independent): [PAR-23-108](#) and [PAR-23-107](#)



More details and full list of awards at: <https://obssr.od.nih.gov/about/violence-research-initiatives>

SDOH Research is Part of Strategic Plans at NIH

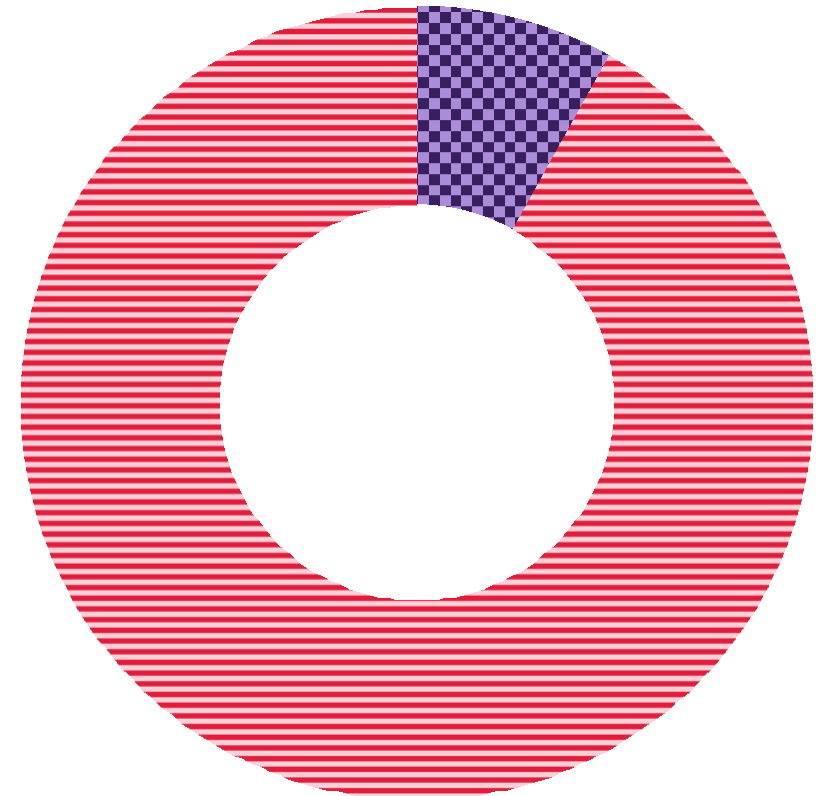


- NIH 2021-2025 Strategic Plan
 - Foundational Science, Objective 1
 - Understanding biological, behavioral, and social determinants of population health
- 63% of NIH Institute and Center (IC) strategic plans explicitly mention SDOH (17 of 29 ICs)

NIH FY2022 SDOH Research Investment

- \$3.6 Billion Invested
- 7,538 Projects Supported

8% Percent of FY22
NIH Budget



Sources: NIH RCDC <https://reporter.nih.gov/>;

*FY2022 Estimated; Internal Data NIH Office of Portfolio Analysis, 12/8/2022

NIH-Wide SDOH Research Coordinating Committee



Facilitate

Facilitate sharing of information about SDOH research across NIH and with Federal partners



Develop

Develop SDOH expertise, capacity, and a learning system at NIH



Build

Build community and collaborations in SDOH research across NIH and with Federal partners



Identify

Identify gaps and promising SDOH research directions

Accelerate SDOH research across NIH

across diseases and conditions, populations, life-course stages, SDOH domains

Ontologies Accelerate Scientific Advances

- Supports transparent, reproducible, and replicable science
- Facilitates communication, comparison, and integration of discovery
 - Makes domain assumptions explicit
 - Allows for identification of conceptual and empirical inconsistencies, unanswered questions, and novel hypotheses
 - Shared understanding of the structure of information within a domain allows for aggregation of knowledge within and across-disciplines
 - Enables reuse of domain knowledge: e.g., enhanced meta-analyses

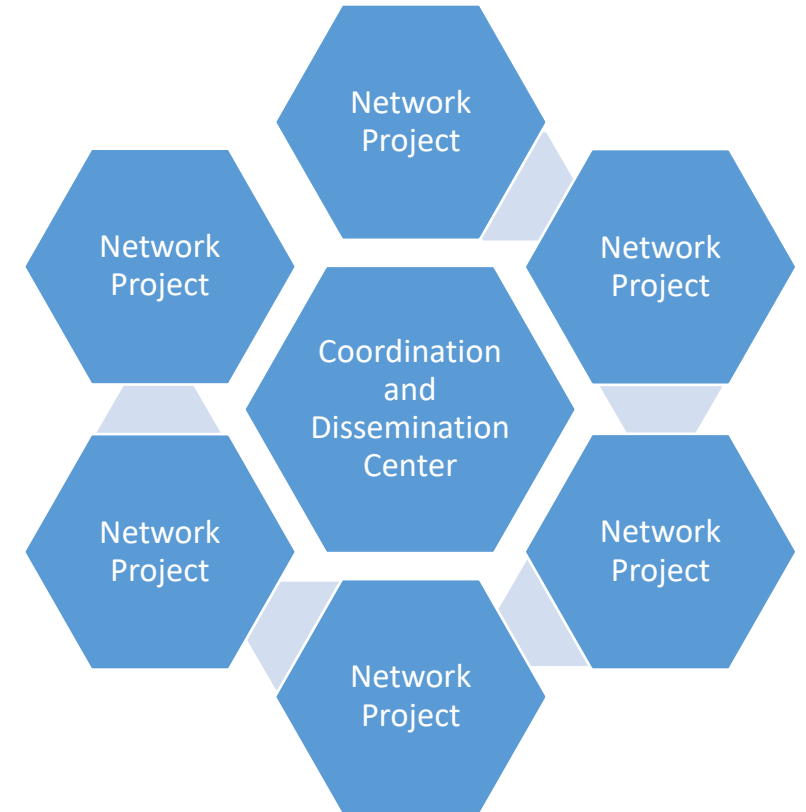
NASEM Consensus Study: Ontologies in the Behavioral Sciences Accelerating Research and the Spread of Knowledge

<https://nap.nationalacademies.org/catalog/26464/ontologies-in-the-behavioral-sciences-accelerating-research-and-the-spread>

Blog: <https://obssr.od.nih.gov/news-and-events/news/director-voice/advancing-ontology-development-and-use-behavioral-and-social>

Initiative: Behavioral and Social Science Ontology Development and Use

- 1) Support **independent but collaborative research projects** focused on ontology development, dissemination, and use.
- 2) Support a **coordinating center** to foster collaboration, share results, address common challenges, and facilitate cross-project learning; provide ontology-related informatics expertise; disseminate resources to support ontology development, uptake, and sustainable use.



- [CONCEPT: https://dpcpsi.nih.gov/sites/default/files/Day-1-250PM-OBSSR-Concept-Ontologies-Hunter-Revised-508.pdf](https://dpcpsi.nih.gov/sites/default/files/Day-1-250PM-OBSSR-Concept-Ontologies-Hunter-Revised-508.pdf)
- [Notice of Intent to Publish a Funding Opportunity Announcement for Accelerating Behavioral and Social Science through Ontology Development and Use \(U01\)](#)
- [Notice of Intent to Publish a Funding Opportunity Announcement for Accelerating Behavioral and Social Science through Ontology Development and Use \(U24\)](#)

Time-Sensitive Opportunities for Health Research (R61/R33 Clinical Trial Not Allowed)

- Supports research to understand health outcomes related to an unexpected and/or time-sensitive event (e.g., emergent environmental threat; pandemic; change in local, state, or national policy; natural disaster).
- Applications must demonstrate that the research proposed is time-sensitive and must be initiated with minimum delay due to a limited window of opportunity.
- Time from submission to award is ~4-5 months
- Pre-application webinar recording is available on the News and Events section of the OBSSR website: <https://obssr.od.nih.gov/news-and-events/news/resources-par-22-233-time-sensitive-opportunities-health-research-r61r33>
- NOFO link: <https://grants.nih.gov/grants/guide/pa-files/PAR-22-233.html>
- Blog: <https://obssr.od.nih.gov/news-and-events/news/director-voice/advancing-natural-experiment-research-nih>

BRAIN Initiative: Brain Behavior Quantification and Synchronization NOFOs

- **Study “the brain in action” to accelerate the discovery of brain-behavior relationships**
 - Develop “tools to analyze naturalistic (untrained) and trained behaviors” and to assimilate and link brain recordings with behavior.
 - Match the scientific rigor and precision of measurements of brain activity with equally precise, temporally dense measurements of the functional output of the brain, as expressed in a broad range of behaviors
- **Transformative and Integrative Models of Behavior at the Organismal Level (R34 Clinical Trial Not Allowed):** <https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-23-030.html>
- **Brain Behavior Quantification and Synchronization (R61/R33 Clinical Trial Optional):** <https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-22-240.html>

*“We got the biological science right, but we didn’t get the **social science** right”*

Ashish Jha on the pandemic *CNBC*, 7/7/22



COVID-19 Vaccination* Communication:

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

Report: Wen-Ying, S.C., Burgdorf, C. E., Gaysynsky, A., Hunter, C. M. (2020). COVID-19 Vaccination Communication: Applying Behavioral and Social Science to Address Vaccine Hesitancy and Foster Vaccine Confidence. https://obssr.od.nih.gov/sites/obssr/files/inline-files/OBSSR_VaccineWhitePaper_FINAL_508.pdf.

Tip Sheet: Wen-Ying, S.C., Burgdorf, C. E., Gaysynsky, A., Hunter, C. M. (2020). A Communicator’s Tip Sheet for COVID-19 Vaccination. https://obssr.od.nih.gov/sites/obssr/files/inline-files/COVIDTipSheet_Final_508.pdf

Three Communication Considerations

1. WHAT
Define communication goals

2. WHO
Identify needs and perspectives of intended audience

3. HOW
Create and disseminate tailored messages

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.

Future of Work: BSSR Informing the Changing Work Landscape

"The challenges for individuals working in this manner [virtual and hybrid] are clear: more people will need to learn to work in ways far different than how previous generations worked."

---Kniffin et al., 2020, p. 74



Report: Jaworski, B.K., Parasuraman, S., Gowda, J., Spotts, E., Schloesser, D., Hunter, C.M. (2022) The Future of Work: Evidence-based considerations for hybrid and remote work.

https://obssr.od.nih.gov/sites/obssr/files/inline-files/Future-of-Work-and-BSSR-Considerations-Report-2022-11-03-FV-04_508.pdf

FOW blog: <https://obssr.od.nih.gov/news-and-events/news/director-voice/future-work-evidence-based-considerations-hybrid-and-remote>



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2023 OBSSR Events

May

- 16th NIH Matilda White Riley Behavioral and Social Sciences Honors (5/15)
- OBSSR Director's Webinar Series with Dr. Megan Ranney (5/16)

September

- OBSSR Director's Webinar Series with Dr. Neil Lewis (9/19)

December

- NIH Behavioral and Social Sciences Research Festival (TBD)

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