# NIH Office of Behavioral and Social Sciences Research





#### **Foreword from the DPCPSI Director**

Behavioral and social sciences research (BSSR) plays a pivotal role in the mission of the National Institutes of Health (NIH) to turn scientific discoveries into better health for all.

For more than three decades, the Office of Behavioral and Social Sciences Research (OBSSR) has been a source of innovation and collaboration. Leading groundbreaking initiatives and investing in cutting-edge research, OBSSR has been at the forefront of driving transformative change in how we understand and address health challenges.

An illustrative example is the <u>NIH Social, Behavioral, and Economic Initiative on</u> the <u>Health Impacts of COVID-19</u>. When faced with the unprecedented challenges posed by the pandemic, OBSSR rose to the occasion, leveraging insights from BSSR

to facilitate the implementation of behavioral mitigation strategies, tackle health disparities, and expedite critical research efforts on the adverse health impacts of social isolation and loneliness.

OBSSR's commitment to integration and innovation is also exemplified through initiatives like the Brain Behavior Quantification and Synchronization (BBQS) program. By harnessing the power of collaboration and novel research methodologies, BBQS is ensuring the development of tools to measure behavior with more precision, investigate the impacts of real-world contexts on health, and revolutionize our understanding of the neural basis of behavior, paving the way for impactful discoveries.

With this new 5-year Strategic Plan, OBSSR is well positioned to build on its previous successes, harnessing a shared sense of purpose across NIH to promote and align BSSR as an integral component of NIH research efforts.

Given the visionary leadership of Director Jane M. Simoni and the unwavering dedication of the entire OBSSR team, I am confident that OBSSR will continue to blaze new trails, inspire scientific discovery, and drive positive change for the health of our nation.

Our collective efforts to integrate BSSR into the biomedical research infrastructure at NIH hold the power to transform lives, strengthen communities, and shape a healthier, brighter future for generations to come.

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#### A Message from OBSSR Leadership

This moment in history provides an unrivaled opportunity for the Office of Behavioral and Social Sciences Research (OBSSR) to broaden the influence of behavioral and social sciences research (BSSR) on the National Institutes of Health (NIH) research enterprise to improve health outcomes. Biomedical research has led to remarkable advances, such as the SARS-CoV-2 vaccines, while highlighting the need to anticipate behavioral and social challenges, such as vaccine hesitancy, when implementing this work in real-world settings.

Beyond viral pandemics, other pressing health issues with major BSSR implications include the opioid epidemic, rising rates of depression and anxiety, widespread loneliness and isolation, and "deaths of despair" from suicide and drug overdose. Moreover, there is ongoing trauma and psychological distress caused by mass shootings, climate change, global conflicts, and political and economic uncertainty.

Given these overlapping health challenges, OBSSR supports research that considers the structural, environmental, and social determinants of health and well-being, as well as research that focuses on developing innovative, culturally relevant health promotion solutions. Community-focused research in naturalistic settings holds great promise for addressing health disparities and inequities, with a more direct path to broad implementation and dissemination.

NIH recognizes that <u>diversity</u>, <u>equity</u>, <u>inclusion</u>, <u>and accessibility</u> (<u>DEIA</u>) are "intrinsic to the achievement of better health for all." One component of DEIA and a priority for OBSSR is workforce development to increase the involvement of underrepresented groups in science. We are committed to training the next generation of BSSR researchers with the tools they need to better understand the impact of health disparities and advance health equity.

Exciting advances in artificial intelligence and large language models hold promise to transform the research enterprise. One of OBSSR's strategic priorities is to improve BSSR measurement, methods, and data analytics, and we will continue to support behavioral and social scientists with the most up-to-date tools to investigate behavior and deliver scalable and adaptable interventions.

OBSSR's fourth strategic plan reflects the rapidly changing nature of BSSR and builds on our previous accomplishments. This plan capitalizes on OBSSR's unique coordinating role, highlighting scientific priorities that transcend specific diseases and conditions, address critical areas, and fulfill the needs of the NIH Institutes, Centers, and Offices.

We extend our appreciation to the many individuals, groups, and organizations who contributed to the *OBSSR Strategic Plan* 2025–2029. With their support, we are well positioned to coordinate the behavioral and social sciences at NIH and enhance their impact to improve the health and well-being of us all.

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### **Behavioral and Social Sciences Research and its Impact**

Behavioral and social sciences research (BSSR) is essential to the National Institutes of Health (NIH) mission, which is to seek fundamental knowledge about the nature and behavior of living systems and apply that knowledge to optimize health and prevent or reduce illness for all people. Because BSSR provides valuable insights into human behavior—including how individuals and groups think, feel, behave, and interact—findings from BSSR can inform interventions and public health strategies to directly affect health outcomes.

BSSR is especially valuable to health promotion and disease prevention because research suggests that the chronic disease burden and all-cause mortality rates in the United States may be largely attributed to preventable high-risk behaviors, such as low physical activity, high sedentary behavior, poor diet, and tobacco and alcohol use. <sup>1,2</sup> Moreover, incorporating BSSR into the broad NIH research enterprise helps address health disparities, promote health equity, and ensure that interventions are culturally sensitive and responsive to the needs of diverse populations. BSSR plays a critical role in producing robust scientific knowledge and translating that knowledge into practical applications that benefit the health of all people.

Since 2019, the Office of Behavioral and Social Sciences Research (OBSSR) has broadly defined BSSR at NIH as research that "involves the systematic study of behavioral and social phenomena relevant to health."

- Behavioral phenomena include both the observable actions of individuals or groups and mental phenomena, such as knowledge, attitudes, beliefs, motivations, perceptions, cognition, and emotions.
- Social phenomena include interactions between and among individuals; the characteristics, structures, and functions of social groups and institutions (e.g., families, communities, schools, workplaces); and the physical, economic, cultural, and policy environments in which social and behavioral phenomena occur.
- Health refers to a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity.

The behavioral and social sciences include a diverse set of scientific disciplines that incorporate health-related behavior or social phenomena in basic and applied research, including anthropology, demography, genetics, health economics, neuroscience, psychology, public health, social policy, social work, sociology, and related subfields. Health and well-being depend on complex and dynamic relationships among factors across individual, interpersonal, community, and population levels. Therefore, a multidisciplinary approach to biological, behavioral, and social phenomena is essential to developing effective and sustainable approaches to improve health.

BSSR encompasses the entire translational research continuum, from fundamental and foundational science to the development and testing of actionable health-related interventions and policies that may have an impact at the individual, group, or population level. BSSR also includes dissemination and

Bauer, U. E., Briss, P. A., Goodman, R. A., & Bowman, B. A. (2014). Prevention of chronic disease in the 21st century: Elimination of the leading preventable causes of premature death and disability in the USA. The Lancet, 384(9937), 45-52. https://doi.org/10.1016/S0140-6736(14)60648-6

<sup>&</sup>lt;sup>2</sup> Committee on Population, Division of Behavioral and Social Sciences and Education, Board on Health Care Services, National Research Council; Institute of Medicine. (2015, February 24). Measuring the risks and causes of premature death: Summary of workshops. National Academies Press. https://doi.org/10.17226/21656

implementation research focused on how to accelerate and enhance the widespread adoption, acceptability, and scalability of evidence-based approaches to improve health.<sup>3</sup>

Finally, BSSR is essential for continuing to improve health equity and eliminate health disparities by identifying factors that mitigate or exacerbate inequity and the development of approaches to address these factors at social, organizational, and environmental levels.<sup>4</sup>

#### **About OBSSR**

OBSSR is led by the Director with support from the Deputy Director, the Associate Deputy Director, and two section chiefs. The Chief of the Scientific Development and Coordination Section oversees a team responsible for integrating BSSR into NIH's research initiatives. The Chief of the Policy, Planning, and Analyses Section supervises a team responsible for communications, policy development, budgetary assessments, office planning, and program evaluations.

OBSSR is part of the <u>Division of Program Coordination</u>, <u>Planning</u>, <u>and Strategic Initiatives (DPCPSI)</u> within the NIH Office of the Director. DPCPSI advances biomedical and behavioral science through crosscutting, innovative strategies that foster collaboration and synergies across NIH.

#### **OBSSR Mission and Vision**

In accordance with our congressional mandate (Box 1), the mission of OBSSR is to enhance the impact of health-related BSSR by:

#### Mission

- Identifying gaps and opportunities for BSSR
- Integrating BSSR within the larger NIH research enterprise
- Developing and coordinating BSSR initiatives with the NIH Institutes, Centers, and Offices (ICOs)
- Communicating significant BSSR findings within NIH and beyond

The vision of OBSSR encapsulates our broader aims and ultimate objectives:

#### **Vision**

The synergistic integration of behavioral and social sciences in health research leading to accelerated scientific discovery, effective treatment and health-promotion interventions, and equitable implementation strategies to improve health for all.

<sup>&</sup>lt;sup>3</sup> Riley, W. T. (2017). Behavioral and social sciences at the National Institutes of Health: Adoption of research findings in health research and practice as a scientific priority. *Translational Behavioral Medicine*, 7(2), 380-384. https://doi.org/10.1007/s13142-017-0474-4

<sup>&</sup>lt;sup>4</sup> Mensah, G. A., & Riley, W. T. (2021). Social determinants of health and implementation research: Three decades of progress and a need for convergence. Ethnicity & Disease, 31(1), 1-4. https://doi.org/10.18865/ed.31.1.1

#### **Approach to Priority Setting and the Strategic Planning Process**

OBSSR's approach to priority setting involves engaging partners at various levels to gather feedback and ensure alignment with our mission and vision. This process emphasizes collaboration and transparency, incorporating diverse perspectives from a variety of partners. By fostering open dialogue with multiple internal and external groups, we can identify priorities that reflect the most pressing needs and opportunities within the BSSR arena.

To develop the current strategic plan, OBSSR took a multipronged approach (see <a href="Appendix A">Appendix A</a>) over a period of three years, with the initial goal of assessing activities conducted during the previous five years. We aimed to identify important new areas for growth and discern where adjustments in focus or intensity could better support the future of BSSR at NIH. Recurrent themes were identified to inform priorities and objectives for the future. OBSSR used a mixed-

Box 1. Establishment of OBSSR

The U.S. Congress established the Office of Behavioral and Social Sciences Research on June 10, 1993, in recognition of the importance of health-related behavioral and social sciences and their contributions to the NIH mission.

OBSSR, which officially opened its doors on July 1, 1995, is mandated to coordinate behavioral and social sciences research conducted or supported by NIH and integrate these sciences within the larger NIH research enterprise.

The official statutory language (42 U.S.C. § 283c (1994): Sec 404A. [283c]) is found in the Public Health Service Act, which is captured in 42 U.S.C., The Public Health and Welfare.

methods approach to inform, adapt, and modernize its scientific priorities for this strategic plan.

- Assessed Progress and Future Directions: OBSSR conducted an assessment of the <u>OBSSR Strategic</u>
   *Plan 2017–2021* to document our accomplishments and identify future directions and frameworks. This
   involved aligning key activities and outputs with strategic objectives to assess how effectively each
   objective was addressed and to identify any existing gaps. Through this systematic approach, OBSSR
   also evaluated which objectives and strategies were most effective in fulfilling our mission.
- Gathered Input from the Research Community and Other Key Constituents: We issued two
  Requests for Information, reaching out to both the extramural research community and other external
  collaborators to <u>identify research priorities and opportunities in the field</u> and gather feedback on the
  proposed priorities and objectives for this strategic

plan. This feedback informed OBSSR's review of our current strategic plan and aided in refining our specific objectives and strategies moving forward.

- Collected Feedback from Federal Partners
  - Listening Sessions with NIH Staff and Leadership: We conducted a series of listening sessions with key BSSR-related staff and leadership at NIH to identify ICO priorities, shared interests, alignment with OBSSR, and unmet needs related to BSSR.





Recurrent themes drawn from these sessions suggested several opportunities for future OBSSR emphasis and support.

- Input from the NIH Council of
  Councils: Two Council of Councils
  working groups developed reports
  addressing BSSR at NIH, namely the
  Trans-NIH Research Opportunities in
  the Basic Behavioral and Social Sciences:
  National Institutes of Health Council of
  Councils Working Group Report and the
  Integration of Behavioral and Social Sciences
  Research at the National Institutes of Health
  (NIH): NIH Council of Councils Working
  Group Report. Recommendations from
  these reports helped inform priority
  areas and crosscutting themes for this
  strategic plan.
- **Refined Priorities and Projects:** OBSSR used the feedback from the activities listed above to refine our strategic priorities and objectives. This inclusive approach enabled us to gather diverse perspectives and insights, ensuring our strategic priorities closely align with the needs of the research community. Ultimately, this feedback informed the development of the final version of the *OBSSR Strategic Plan* 2025–2029, which serves as an overview of OBSSR's priorities for the next five years.

#### Implementation of the Strategic Plan

OBSSR will execute its strategic plan by bringing together key partners to identify gaps and opportunities in BSSR within the broader NIH research enterprise, particularly those not adequately addressed by individual NIH institutes and centers (ICs). We will continuously assess the plan's implementation using both qualitative and quantitative methods, including portfolio analyses, systematic evaluation, and engagement in research policy. We will methodically measure and monitor the impact and progress of our initiatives against our strategic priorities.

We will regularly explore opportunities for collaboration across NIH with the <u>BSSR Coordinating Committee (BSSR-CC)</u>, which includes representatives from all NIH ICOs. Performance metrics will be developed in consultation with our staff and the BSSR-CC, ensuring alignment with priority areas. These partnerships will amplify the impact of OBSSR's initiatives, unlocking new opportunities and fostering innovation through information exchange.

## **Strategic Plan Framework**

Vision

The **synergistic integration of behavioral and social sciences in health research** leading to accelerated scientific discovery, effective treatment and health-promotion interventions, and equitable implementation strategies to improve health for all.

Mission

**To enhance the impact** of health-related behavioral and social sciences research (BSSR) by:

- **Identifying** gaps and opportunities for BSSR
- Integrating BSSR within the larger NIH research enterprise
- Developing and coordinating BSSR initiatives with the NIH Institutes, Centers, and Offices (ICOs)
- Communicating significant BSSR findings within NIH and beyond

## **Strategic Priorities**

CROSSCUTTING THEME

**HEALTH EQUITY** 



#### RESEARCH

- Collaborative Science
- Innovative Scientific Investigation
- Implementation, Dissemination, and Equitable Impact



#### **CAPACITY**

- BSSR Workforce Development
- Organizational Climate



#### **OPERATIONAL**

- Diversity, Equity, Inclusion, and Accessibility Values
- Collaborative Partnerships
- Communication and Outreach

### **Crosscutting Theme: Health Equity**

The OBSSR strategic plan is grounded in the principle of health equity. Health equity is achieved when everyone has a fair and just opportunity to be as healthy as possible. BSSR can contribute to health equity by identifying and addressing the social, economic, and environmental factors that contribute to health disparities and impede health and well-being for all people.

Health equity remains elusive in the United States,<sup>5</sup> where there are persistent health disparities based on such factors as race/ethnicity, sex, sexual and gender minority status, socioeconomic status, immigration status, and geographic location. Many of these disparities stem from inequities across social determinants of health (SDOH). SDOH are the conditions in which people are born, grow, learn, work, play, live, and age, as well as the wider set of structural factors that shape daily life. BSSR plays a crucial role in examining SDOH, understanding the root causes of health disparities, identifying modifiable factors that contribute to disparities, and proposing strategies for achieving health equity.

OBSSR has a long history of supporting research initiatives that address health disparities, opportunities for underrepresented groups in scientific fields, improvements in research inclusivity, and policy matters affecting minoritized populations. We look forward to building on this research and collaborating with our NIH partners to promote and implement larger government initiatives that advance health equity, such as the recent Executive Order to accelerate research on women's health.

Our emphasis on health equity aligns with the <u>U.S. Department of Health and Human Services Equity Action</u> <u>Plan</u>, which aims to ensure that all people, including underserved populations, have optimal opportunities to live healthy and thriving lives. OBSSR is committed to research that furthers all priorities of the plan to advance health equity, including:

- Preventing neglect and improving care to help children thrive in their families and communities
- Promoting accessible and welcoming health care for all
- Improving maternal health outcomes for rural, racial, and ethnic minority communities
- Prioritizing the behavioral health of underserved populations
- Increasing diversity in clinical trials and research to support innovation

<sup>&</sup>lt;sup>5</sup> National Academies of Sciences, Engineering, and Medicine. (2024). Ending unequal treatment: Strategies to achieve equitable health care and optimal health for all. The National Academies Press. https://doi.org/10.17226/27820

#### **Research Priorities**

#### Priority 1: Collaborative Science

Improving health requires a comprehensive and collaborative approach that integrates BSSR within the health research enterprise, creating an environment for synergistic scientific inquiry. For example, during the COVID-19 pandemic, critical BSSR questions emerged that can be generalized across health domains:

- What types of behaviors exacerbate or mitigate health risks?
- How can we best communicate health information?
- What are the impacts of economic disruptions on downstream health outcomes?
- How do individuals, families, and communities cope with illness-related stressors?
- How can we minimize inequities during a health crisis and address health care disparities?

To address these questions, OBSSR played a key role in rapidly developing and widely disseminating the NIH Social, Behavioral, and Economic (SBE) Initiative on the Health Impacts of COVID-19.6 This initiative resulted in support for more than 50 projects focused on digital and community health and data science. It fostered a community of investigators who produced valuable research findings on such topics as family violence, depression, health care access, emotional well-being, and stress during the COVID-19 pandemic. The SBE COVID Consortium, which focuses on disparities and vulnerable populations, continues to produce a growing body of resources to inform policy.

Scientific discovery does not happen in siloes; OBSSR is committed to leveraging innovation in all fields of health science to build toward the vision of health research leading to accelerated scientific discovery, effective treatment and health-promotion interventions, and equitable implementation strategies to improve health for all.

### Goal 1: Integrate and Coordinate Behavioral and Social Sciences Research Across the National Institutes of Health

Despite the relevance of BSSR across NIH ICO missions, a 2022 NIH Council of Councils Working Group report found significant gaps and variation in BSSR integration across NIH in research funding, initiatives, staff expertise, review practices, Advisory Council representation, public communications, and strategic planning and policy implementation.

The Working Group noted that improving BSSR integration across NIH will have important implications for NIH's mission to improve the health of all people. Our Strategic Plan reflects and builds on these recommendations (Box 2).

OBSSR will continue to coordinate processes that support the integration of BSSR at NIH and across health research more broadly. Specific strategies for coordination and integration include the following:

<sup>&</sup>lt;sup>6</sup> Riley, W. T., Borja, S. E., Hooper, M. W., Lei, M., Spotts, E. L., Phillips, J. R. W., Gordon, J. A., Hodes, R. J., Lauer, M. S., Schwetz, T. A., & Pérez-Stable, E. (2020). National Institutes of Health social and behavioral research in response to the SARS-CoV-2 pandemic. *Translational Behavioral Medicine*, 10(4), 857-861. https://doi.org/10.1093/tbm/ibaa075

- Maintaining a staff with diverse expertise
- Actively and systematically reaching out to individual NIH ICOs
- Facilitating the inclusion of BSSR in a diseaseagnostic fashion across basic research and the full translational continuum
- Establishing and coordinating NIH-wide working groups to develop funding initiatives for research, training, and career development
- Providing input on review practices and recommendations for NIH policy implementation
- Building infrastructure to support multidisciplinary collaborations

Enhanced integration of BSSR will accelerate our ability to address some of the most complex and pressing public health issues of our time, including climate change, infectious disease outbreaks, violence (Box 3), and the social and structural drivers of health.

## Goal 2: Build a Cumulative Behavioral and Social Sciences Research Knowledge Base

Effective and enduring support for BSSR by NIH depends on strengthening the research infrastructure needed for the full spectrum of BSSR to thrive. The past two decades have seen enormous growth in the complexity of behavioral and social science data. This growth has challenged our ability to collect, standardize, store, and integrate information within and across health domains. To address this challenge, OBSSR will continue to promote the development and use of common terminology and interoperable knowledge representations across BSSR disciplines.

One strategy for building a cumulative knowledge base centers on the development and use of

#### Box 2: Integrating BSSR across NIH: Council of Councils Working Group Recommendations

- BSSR should be more consistently included in IC Strategic Plans and linked to IC missions.
- NIH and IC Directors should address gaps in the number of BSSR staff across the agency and increase diversity of BSSR expertise.
- Each IC Advisory Council should include a minimum of two members with behavioral or public health expertise.
- ICs should identify opportunities to increase the application of BSSR in their research and training initiatives.
- NIH should increase centers, resource grants, and trial networks that include BSSR capacity and focus.
- Scientific review panel composition should adequately reflect BSSR knowledge and expertise.
- NIH should engage BSSR experts early and throughout the development and implementation of new research policies and practices.
- Analytical approaches to characterize and track NIH funding trends in BSSR should be enhanced.
- BSSR findings should be used to create evidence-based approaches to address workforce diversity.
- Team science and multidisciplinary integration should be fostered.
- BSSR should be consistently used to enhance the effective, efficient, equitable, and ethical conduct of science.

ontologies. An ontology is a "systematic method for articulating a controlled vocabulary of agreed upon terms and their interrelationships." Ontologies serve several purposes, including clarifying concepts, classifying phenomena, effectively communicating between and across scientific disciplines, and

<sup>&</sup>lt;sup>7</sup> Larsen, K. R., Michie, S., Hekler, E. B., Gibson, B., Spruijt-Metz, D., Ahern, D., Cole-Lewis, H., Ellis, R. J., Hesse, B., Moser, R. P., & Yi, J. (2017). Behavior change interventions: The potential of ontologies for advancing science and practice. *Journal of Behavioral Medicine*, 40(1), 6-22. https://doi.org/10.1007/s10865-016-9768-0

integrating data. Rigorous and reproducible BSSR depends on the adoption of clear and consistent definitions for social and behavioral phenotypes, outcomes, and intervention components. Moreover, the specificity afforded by using ontologies can lead to greater precision in experiments designed to test our understanding of the biological, psychological, and social mechanisms underlying behavior and behavior change. Finally, by facilitating the ability to describe relationships across a broad range of social and behavioral indicators and outcomes across disciplines and diseases, ontologies can help researchers better identify targets for behavioral interventions.

OBSSR has promoted the growth of a cumulative BSSR knowledge base by:

- Leading a BSSR-CC Behavioral Ontologies
   Development Working Group with NIH-wide representation
- Ensuring that NIH's Research, Condition, and Disease Categorization (RCDC) system reflects the breadth of topics within the behavioral and social sciences
- Enhancing BSSR terminology in the <u>Medical</u> <u>Subject Headings (MeSH)</u> thesaurus used for indexing biomedical and health-related information
- Co-sponsoring the <u>2022 National Academies of</u> <u>Science Consensus Study</u> on Ontologies in the Behavioral Sciences
- Collaborating with multiple NIH ICOs to issue funding opportunities on accelerating behavioral and social science through ontology development and use (e.g., <u>PAR-23-181</u>, <u>PAR-23-182</u>) and to launch a network of new behavioral ontology development teams, in line with consensus study recommendations

#### Goal 3: Enhance and Connect Basic and Applied Behavioral and Social Sciences Research

BSSR involves basic research and the application of findings in real-world practice and policy. Ideally, basic and applied research endeavors are synergistic and bidirectional, leading to accelerated advances and the potential for greater impact on health and well-being. OBSSR supports both basic and applied BSSR and their integration.

#### Box 3: Coordinating NIH Efforts to Support Violence Prevention Research

OBSSR, in collaboration with the Office of Extramural Research (OER) and multiple other NIH ICOs, leads the development of funding opportunities in response to the congressional appropriation of \$12.5 million per year for firearm injury and mortality prevention research. These initiatives build on the existing NIH research portfolio and address emerging scientific opportunities. They encourage research on interventions delivered in health care and community settings that integrate individual, family, interpersonal, community, and structural or systemic approaches to firearm injury and mortality prevention.

Research on violence, including community violence intervention research, provides the basis for evidence-based strategies that communities can implement to reduce violence. Through these funding opportunities, NIH has funded many highly meritorious grants, including a research network with a coordinating center to provide cross-network coordination, communication, analytics, engagement, and dissemination efforts, as well as training grants. OBSSR collaborates with the Centers for Disease Control and Prevention to ensure our efforts are complementary.

**Basic BSSR** furthers our understanding of fundamental mechanisms and patterns of behavioral and social functioning, including how these factors interact with one another, biology, and the environment. It can enhance understanding of the complex interplay between individual, family, social, organizational, and environmental experiences that affect population-level health and well-being. The <u>NIH-Wide Strategic</u> <u>Plan: Fiscal Years 2021–2025</u> highlights the importance of basic biological, behavioral, and social research in advancing biomedical and behavioral sciences.

ICOs at NIH support a broad range of basic BSSR, in such areas as cognitive, affective, and interpersonal processes; behavioral neuroscience; demography and epidemiology; cultural, institutional, and environmental factors; and developmental trajectories. From 2010 to 2022, OBSSR coordinated these efforts through the NIH Basic Behavioral and Social Science Opportunity Network (OppNet). OppNet funding opportunities supported transdisciplinary collaborations across a wide range of previously understudied areas of basic BSSR, including multisensory processing; biobehavioral studies of stress, self-regulation, and resilience; sleep and the social environment; decision-making and basic mechanisms of behavioral maintenance; culture, health, and well-being; stigma; relationships among epigenetic changes, behaviors, and social context; and social connectedness and isolation. OppNet also contributed to the basic BSSR workforce through career development grants, short courses, and scientific conferences focused on interdisciplinary research. OppNet grants have been administered through more than 20 NIH ICs, fostering the broad integration of basic BSSR into health research.

Following the sunsetting of OppNet and the publication of a 2021 Council of Councils report, <u>Trans-NIH</u> <u>Research Opportunities in Basic Behavioral and Social Sciences</u>, a new Executive Committee on basic BSSR was established. This Executive Committee is co-chaired by the OBSSR Director and includes Director-level representation from 11 NIH ICs, providing an excellent resource for continued discussion of crosscutting priorities and strategies to advance and disseminate promising basic BSSR findings.



Applied BSSR uses behavioral and social science methods to influence health outcomes, mitigate risks, and enhance protective factors. It also seeks to understand the impact of illness or health risks on behavioral and social functioning. Applied BSSR involves the development of interventions that may engage individual, interpersonal, community, institutional, and population targets. OBSSR works to ensure that intervention development frameworks used across NIH consider and integrate all these levels. The <a href="NIH BSSR-CC">NIH BSSR-CC</a> maintains a working group dedicated to the assessment of and improvements in the basic-to-applied pipeline.

The basic and applied fields within BSSR have a complementary relationship. Basic research often provides the foundation for further applied research, and applied research often suggests new, use-inspired directions for basic research. Integrating and ensuring meaningful bidirectional feedback between basic and applied BSSR through multidisciplinary team science is a priority

for OBSSR because diverse viewpoints and areas of expertise are needed to tackle the challenges associated with changing behaviors, altering social factors and systems, and improving health.

One illustration of the synergies of basic and applied BSSR and contributions of BSSR to the wider biomedical research enterprise is in the realm of "science of science" research. BSSR addresses both basic and applied "science of science" questions, such as those related to trust in science, ethical and privacy concerns, recruitment and retention (especially of underrepresented and disadvantaged populations), norms in the conduct of science, and the health impacts of science policies. Basic BSSR in such areas as altruism, trust, persuasion, reinforcement, behavioral economics, decision-making under uncertain conditions, and counterfactual thinking lays the groundwork for innovative approaches to engage participants ethically and meaningfully in research recruitment. This foundational research also supports fair implementation and widespread dissemination of health-related research in real-world settings through enhanced understanding of science communication.

#### Research Priority 2: Innovative Scientific Investigation

Encouraging innovation and rigor in research measurement, experimental designs, and data analytics used in BSSR will accelerate scientific advances and support a more comprehensive and seamless integration of BSSR into the larger health research enterprise. Across BSSR disciplines, support is needed for the development and use of more advanced, multilevel, and harmonizable measurement approaches. OBSSR has pursued these goals through contributions to such projects as the <a href="Phenx COVID-19 Protocol Library">Phenx COVID-19 Protocol Library</a>, the <a href="NIH Toolbox">NIH Toolbox</a>, and the <a href="Disaster Research Response Resources Portal">Disaster Research Response Resources Portal</a> (DR2). We also have a decadelong history of supporting <a href="short courses">short courses</a> focused on skills development in innovative and integrative methodologies and analytics.

OBSSR incentivizes investigators to incorporate novel research designs and explore cutting-edge analytic techniques to tackle the most pressing health questions. For example, OBSSR, along with several NIH IC partners, developed the <a href="Intensive Longitudinal Health Behaviors Network">Intensive Longitudinal Health Behaviors Network</a>, a consortium of researchers who have worked to leverage technologies and modeling approaches toward better understanding of human behavior over the life course.

To promote equitable health impacts, OBSSR strives to ensure that research methodologies and paradigms are valid for use in all populations and are appropriately disseminated to all BSSR scientists. As an example, OBSSR has participated in the RADx® Underserved Populations (RADx-UP) initiative since the beginning of the COVID-19 pandemic. Projects funded through RADx-UP focus on community-engaged participatory research to evaluate point-of-care testing methods in specific populations, areas, and settings. OBSSR also led the development of recommendations for common data elements to measure both behavioral uptake of screening opportunities and psychosocial outcomes associated with the pandemic.

OBSSR will continue to promote innovative, rigorous, and relevant research by implementing strategic priorities toward the following goals.

#### **Goal 1: Refine BSSR Measurement**

With multiple types of quantitative and qualitative measurement tools and strategies available, OBSSR encourages investigators to think deeply about how best to capture behavioral and social phenomena of interest (Box 4).

Specifically, we will continue to promote and support research projects that advance:

- Novel precision measurement approaches to capture phenotypic characteristics that can explain differences in health and disease over time, help understand variation in response to interventions, and contribute to the development of personalized interventions
- Multilevel assessments of individuals, families, social networks, organizations, communities, and cultures, using a variety of data collection modalities
- Measures to capture changes in the environment, systems, and research structures that affect health in all populations
- Rigorous measurement approaches for studying SDOH
- Innovative technologies (e.g., wearables and mobile apps that are used for ecological momentary assessments) to advance the measurement of behavioral and social phenomena over time in real-world settings and to track complex behaviors and health indicators

Box 4. Supporting Next-Generation Tools, Methods, and Approaches in Behavioral Systems

OBSSR launched Brain Behavior Quantification and Synchronization Program (BBQS) in 2022, leveraging the Brain Research through Advancing Innovative Neurotechnologies® (BRAIN) Initiative to accelerate the development and validation of next-generation tools, methods, and analytic approaches to precisely quantify complex behaviors and combine them with simultaneous recordings of brain activity. BBQS brings together diverse multidisciplinary teams of researchers to quantify brain—behavior relationships in naturalistic environments, with the following goals:

- Building new conceptual and computational models of behavioral systems
- Developing new paradigms and disseminating new technologies to establish causal relationships between neural activity and behavior
- Creating a robust ethical framework that addresses implications of capturing personal experiences
- Enabling the development of closed-loop therapeutic interventions for complex neurobehavioral disorders
- Common data elements and data harmonization to facilitate cross-study comparisons and meta-analyses
- Integration of BSSR measures into impactful NIH-wide initiatives, such as the <u>All of Us Research</u>

  <u>Program</u>, the <u>Environmental influences on Child Health Outcomes (ECHO) Program</u>, and the <u>Brain</u>

  <u>Research through Advancing Innovative Neurotechnologies® (BRAIN Initiative)</u>

#### Goal 2: Promote Novel Experimental Designs

OBSSR is committed to expanding the repertoire of experimental designs available to and adopted by basic and applied BSSR investigators, as well as by integrated multidisciplinary teams. In addition to well-

conducted, fully powered randomized control trials to test specific interventions, OBSSR recognizes the value of the following:

- **Small-Scale Observational Investigations:** OBSSR supports high-quality BSSR conducted with qualitative, small mixed-method, or even N-of-1 case studies.
- Large-Scale, Longitudinal, Observational Studies: OBSSR supports the use of robust sampling strategies and the use of both prospective and retrospective data sets to complement smaller experimental cross-sectional BSSR studies and strengthen causal inference.
- Natural Experiments: As emphasized by the COVID-19 pandemic, observational studies that assess
  the differential impacts of far-reaching events can be illuminating. OBSSR has developed the <u>Time-Sensitive Opportunities for Health Research</u> funding opportunity, through which we support rigorous study of research questions and data collection opportunities related to unexpected or time-sensitive events.
- Pragmatic Trials: Although they pose unique challenges, <u>pragmatic clinical trials</u> provide the
  opportunity to efficiently generate real-world evidence to inform service provision and medical
  decision-making.
- Supplemental Approaches in Epidemiological Studies: Incorporating mobile sensors and
  assessments for passive data collection into surveys can further the integration of social, behavioral,
  and biomedical research.
- Experimental Designs: Behavioral intervention development projects need to more systematically incorporate experimental designs that include hypothesized mechanisms or targets, test these hypotheses through direct measurement of changes in mechanisms or engagement of targets, and demonstrate that those changes are associated with behavioral outcomes.<sup>8</sup> OBSSR's support for such approaches is consistent with practices of multiple NIH ICs, the NIH Science of Behavior Change program, and the NIH Stage Model.<sup>9,10,11,12</sup>

#### **Goal 3: Advance Data Analytics**

BSSR is advancing at an accelerated pace by incorporating innovative technologies and analytical techniques into health research. This effort includes collecting new forms of continuous, temporally dense behavioral and contextual data from wearable and environmental sensors and smartphone-based ecological momentary assessments. It also includes integrating multimodal data streams, such as social media, electronic health records, and administrative data.

<sup>&</sup>lt;sup>8</sup> Birk, J. L., Otto, M. W., Cornelius, T., Poldrack, R. A., & Edmondson, D. (2023). Improving the rigor of mechanistic behavioral science: The introduction of the checklist for investigating mechanisms in behavior-change research (CLIMBR). *Behavior Therapy*, 54(4), 708-713. https://doi.org/10.1016/j.beth.2022.12.008

<sup>&</sup>lt;sup>9</sup> Czajkowski, Ś. M., & Hunter, C. M. (2021). From ideas to interventions: A review and comparison of frameworks used in early phase behavioral translation research. *Health Psychology*, 40(12), 829-844. https://doi.org/10.1037/hea0001095

Nielsen, L., Riddle, M., King, J. W., NIH Science of Behavior Change Implementation Team, Aklin, W. M., Chen, W., Clark, D., Collier, E., Czajkowski, S., Esposito, L., Ferrer, R., Green, P., Hunter, C., Kehl, K., King, R., Onken, L., Simmons, J. M., Stoeckel, L., Stoney, C., Tully, L., & Weber, W. (2018). The NIH Science of Behavior Change Program: Transforming the science through a focus on mechanisms of change. Behavior Research and Therapy, 101, 3-11. https://doi.org/10.1016/j.brat.2017.07.002

<sup>&</sup>lt;sup>11</sup> Stoeckel, L. E., Hunter, C., Onken, L., Green, P., Nielsen, L., Aklin, W. M., & Simmons, J. M. (2023). The NIH Science of Behavior Change Program: Looking toward the future. Behavior Therapy, 54(4), 714-718. https://doi.org/10.1016/j.beth.2023.03.006

<sup>&</sup>lt;sup>12</sup> Onken, L. S. (2019). History and evolution of the NIH stage model: Overcoming hurdles to create behavioral interventions to improve the public health. In S. Dimidjian (Ed.), *Evidence-based practice in action: Bridging clinical science and intervention* (Chapter 2). Guilford Publications.

Increasingly, BSSR is complementing traditional statistical analyses with novel computational tools and modeling approaches. These approaches include artificial intelligence methods, such as machine learning, natural language processing, large language models, text mining, data mining, data visualization, simulations, and predictive modeling.

OBSSR's strategies to help advance, catalyze, and promote the use and development of computational and statistical tools and methods for BSSR, include support for:

- Ethical Applications of Artificial Intelligence for BSSR Researchers Using Internet, Commercial, and Administrative Records Data: This research includes social media platforms, internet data sources, crowdsourcing and citizen science data collections, retail purchasing tracking databases, and many other electronic administrative or commercial records (e.g., digital health care administrative data from patients, providers, and insurers).
- Training Efforts That Will Provide Tomorrow's
  BSSR Researchers with Computational Skills
  and Rigorous Statistical Expertise to Properly
  Curate, Link, Mine, and Combine Data:
  Behavioral and social science trainees interested
  in large, internet-based data sets will require
  instruction in innovative computational and
  mathematical modeling approaches, techniques for
  data mining and harmonization, and new methods
  for dealing with unmeasured heterogeneity.
  OBSSR currently supports advanced data and
  analysis training for graduate students through its
  T32 training program (Box 5).

#### Research Priority 3: Implementation, Dissemination, and Equitable Impact

Too often, a gap exists between what is efficacious in well-controlled intervention research and what happens when those interventions are implemented in real-world clinical or community settings. Indeed, Box 5. Enhancing Data Science Training for Future BSSR Health Researchers

OBSSR led the development of a T32 program— **Training in Advanced Data and Analysis for Behavioral and Social Sciences Research** (TADA-BSSR)—that was launched in 2019 in collaboration with 11 NIH IC partners. TADA-BSSR aims to address gaps in capabilities among BSSR trainees by incorporating data science training as a core element of graduate training. The goal of this program is to develop a cohort of specialized predoctoral candidates who can apply advanced data science analytics to a complex landscape of BSSR data and to give them the skills to integrate methods and theory across multiple levels of analysis. Because of its uptake and success to date, TADA-BSSR was reissued in 2024.

studies have shown it takes an average of 17 years<sup>13</sup> to implement research results in clinical practice. Our previous strategic plan identified a need for more research designed to answer questions that can facilitate rapid data-driven decisions around the implementation of research and its relevance for policy recommendations. We remain committed to addressing this challenge in our current plan.

<sup>&</sup>lt;sup>13</sup> Rubin, R. (2023). It takes an average of 17 years for evidence to change practice—the burgeoning field of implementation science seeks to speed things up. *JAMA*, 329(16), 1333-1336. https://doi.org/10.1001/jama.2023.4387

### Goal 1: Encourage Rigorous and Innovative Implementation and Dissemination Research Methods

OBSSR encourages fully powered studies designed to understand and test mechanisms of action, real-world effectiveness, and implementation strategies in context. We promote research that examines factors influencing the equitable reach, access, adoption, scalability, and sustainability of behavioral and social interventions so that evidence-based applications can have a measurable effect on health outcomes. Research that incorporates dissemination and implementation strategies and frameworks up front can optimize how BSSR is applied in community or social contexts while also informing health services research, quality improvement projects, and policy-driven initiatives.

Innovative research methods that facilitate sustainable adoption include the following:

- Investigations of how innovative technologies might expand the scalability and reach of social and behavioral interventions
- Hybrid implementation/effectiveness designs
- Community engagement science approaches that involve bidirectional learning and dissemination
- Natural experiments that go beyond traditional clinical trials for research evaluating the effects of policy and/or social changes on population health and well-being

  Roy 6. Disseminating Rost Existing
- Cost-effectiveness studies to inform policies around implementation
- Health services and health economics research to identify and evaluate systemic, structural, and policy changes

#### Goal 2: Center Health Equity in Implementation and Dissemination Research

In alignment with leading implementation science scholars and NIH ICO partners, OBSSR recognizes that health equity must be a priority when considering implementation and impact (Box 6). Ensuring that BSSR findings are applicable to different populations and in diverse environments remains a key OBSSR priority. Challenges can arise when factors related to the implementation and adoption of research findings are not considered in advance. Scaling up interventions while retaining fidelity requires close attention to the types of settings in which they will be implemented. Settings in which behavioral and social interventions are best implemented often fall outside the formal health care system and

Box 6. Disseminating Best Existing Research to Encourage COVID-19 Vaccination Uptake

In 2020, OBSSR and the National Cancer Institute mobilized a panel of experts in social and behavioral sciences and public health to summarize evidence-informed communication strategies to support national coronavirus vaccine distribution efforts across federal agencies and their state and local partners. The panel released a report on COVID-19 vaccination communication, reinforcing key foundational principles of health communications, such as ensuring coordinated and consistent messaging, building trust through partnerships, tailoring messaging to differing levels of health literacy, and prioritizing equity in all communications efforts. This tool helped federal agencies or clinical practitioners access the best existing research to encourage vaccine uptake and effectively address vaccine hesitancy.

involve communities, schools, workplaces, and social service providers that lack the resources to ensure quality control. Delays in the adoption and integration of evidence-based behavioral and social science interventions often disproportionally affect under-resourced communities, thus perpetuating health disparities.

Given these concerns, OBSSR's implementation, dissemination, and impact priorities will benefit from adhering to the tenets of community-based participatory research (CBPR). CBPR prioritizes building relationships and partnerships with community organizations or health service providers to facilitate effective dissemination of research and interventions through bidirectional relationships. These partnerships serve as natural avenues for building trust and transparency with research participants. Involving community partners early in the intervention development process also enables investigators to gain an understanding of the contexts for research implementation and to improve dissemination of subsequent findings.

Health researchers and public health officials now recognize that environmental, social, and economic factors are key drivers of health. These SDOH, which include institutional racism and other systemic inequities, drive patterns of morbidity and mortality. Therefore, it is incumbent on OBSSR and our NIH ICO partners to formulate ways to better understand risk patterns in underserved and vulnerable populations and to design strategies and interventions that incorporate knowledge gained from studies of SDOH and health outcomes. The OBSSR Director co-chairs the NIH-wide SDOH Research Coordinating Committee, which is committed to sharing information about SDOH research, developing SDOH expertise and capacity, identifying gaps and promising SDOH research directions, and building community and collaborations across NIH and with federal partners.

#### **Scientific Capacity Priorities**

#### Capacity Priority 1: BSSR Workforce Development

OBSSR recognizes the importance of developing the scientific talent and skills necessary to advance health-related BSSR. Training and capacity building are foundational to an effective BSSR workforce poised to address the complex research challenges of today and the future.

Through ongoing and innovative programs, such as <u>TADA-BSSR</u> and <u>short courses</u> (Box 7), OBSSR will continue to promote the development, use, and enhancement of cutting-edge methods, measures, and skills that expand the capabilities of the BSSR workforce to address future research questions and adapt to evolving research needs and contexts. Training and capacity-building efforts that are crosscutting, include a diversity of disciplines and lived experiences, and strengthen BSSR's ability to meet the scientific challenges of the future will be prioritized.

<sup>&</sup>lt;sup>14</sup> Elwood, W. N., Corrigan, J. G., & Morris, K. A. (2019). NIH-funded CBPR: Self-reported community partner and investigator perspectives. *Journal of Community Health*, 44(4), 740-748. https://doi.org/10.1007/s10900-019-00661-6

<sup>&</sup>lt;sup>15</sup> National Academies of Sciences, Engineering, and Medicine. (2024). Ending unequal treatment: Strategies to achieve equitable health care and optimal health for all. The National Academies Press. https://doi.org/10.17226/27820

#### Capacity Priority 2: Organizational Climate

OBSSR also strives to develop and diversify the workforce within our own office, as the effectiveness of OBSSR staff is crucial to the coordination and integration of BSSR across NIH and beyond. Our practices are aligned with the <a href="NIH Office of Equity">NIH Office of Equity</a>, <a href="Diversity">Diversity</a>, and Inclusion, and we embrace the following objectives:

- A positive work environment and workforce culture with a strong sense of community
- Values and standards that are mutually developed and consistently supported
- Effective performance management, with clear procedures, fair policies, meaningful recognition, accountability, and transparency
- Transparency, with clear lines of communication
- Attention to diversity, equity, inclusion, and accessibility (DEIA) to promote workplace, where every team member is valued, is respected, and feels a sense of belonging
- A workforce culture that supports work–life balance

## Box 7. Supporting the Next Generation of Behavioral and Social Science Researchers

For more than a decade, OBSSR has supported short courses on innovative methods aimed at cultivating skills crucial for advancing BSSR through innovative methodologies and analytics. Among other topics, the courses have focused on power analysis, communitybased participatory research, mixed methods, causal analysis, data management and sharing, mobile health technologies, machine learning, dissemination and implementation science, and hard-to-reach populations. Institutions receiving these grants are required to make course materials available to the wider scientific community, ensuring that the investment in course development extends beyond the limited number of attendees who can participate in person.

• Leaders who also serve as mentors to promote individual career goals and satisfaction

#### **Operational Priorities**

#### **■ Operational Priority 1: Diversity, Equity, Inclusion, and Accessibility Values**

OBSSR is committed to enhancing DEIA consistent with the <u>NIH-Wide Strategic Plan for Diversity</u>, <u>Equity</u>, <u>Inclusion</u>, <u>and Accessibility</u>, both within the behavioral and social sciences and across health research at NIH, and to demonstrating this commitment with transparency and accountability.

In 2019, an analysis completed by the NIH Office of Portfolio Analysis and the NIH Chief Officer for Scientific Workforce Diversity showed a concentration of African American/Black and Hispanic principal investigators in six areas of critical importance to BSSR—training programs, health disparities, child development, sexual risk behaviors and sexual and gender minority health, health services research, and community and population influences.<sup>16</sup>

<sup>&</sup>lt;sup>16</sup> Hoppe, T. A., Litovitz, A., Willis, K. A., Meseroll, R. A., Perkins, M. J., Hutchins, B. I., Davis, A. F., Lauer, M. S., Valantine, H. A., Anderson, J. M., & Santangelo, G. M. (2019). Topic choice contributes to the lower rate of NIH awards to African American/Black scientists. *Science Advances*, 5(10), eaaw7238. https://doi.org/10.1126/sciadv.aaw7238

OBSSR will continue to promote diversity within all research teams and ensure equitable participation in all phases of training and research. Supporting investigative teams with a breadth of social and cultural influences and experiences is likely to expand and diversify the research topics within the overall BSSR portfolio. Further expansion of DEIA within the BSSR workforce should continue to have a positive impact on population-level studies by improving participant sampling approaches, community-based participatory methods, and recruitment.

OBSSR is also committed to understanding *how* DEIA programs and practices influence research practices and outcomes. For example, with 13 NIH ICO partners, OBSSR is supporting a <u>NASEM consensus study</u> on research and application in team science. The goals of the study include an assessment of the role of DEIA in current team science practices, including the principles and practices that best promote DEIA integration into team science at all stages and across the translational continuum. OBSSR will use findings and recommendations from this study to inform future initiatives and investments.

#### Operational Priority 2: Collaborative Partnerships

OBSSR is committed to building equitable collaborations with NIH staff, federal agencies, and external partners to accelerate translation of BSSR evidence into programs, practice, and policies. To foster team science and enhance multidisciplinary research, OBSSR strategically provides co-funding support for NIH-wide initiatives that encompass OBSSR priorities and intersect with the interests of multiple NIH ICOs.

OBSSR has a long-standing BSSR-CC with representatives from the NIH ICOs. The BSSR-CC also holds open sessions designed to enhance communication with other federal agencies and BSSR scientists via professional scientific organizations or coalitions. Work of the BSSR-CC is facilitated by the assignment of OBSSR liaisons to each of the ICOs to further strengthen collaborations across NIH.

OBSSR also seeks and maintains cross-agency partnerships to ensure that accurate and up-to-date research findings are widely available and included in federal initiatives. For example, the OBSSR Director serves as co-chair of the Subcommittee on Social and Behavioral Sciences of the White House National Science and Technology Council (Box 8).

Box 8. Enhancing Federal Policy and Program Design and Delivery Through Social and Behavioral Science

**OBSSR** contributed to the development of the **National Science and Technology Council's** 2024 Blueprint for the Use of Social and Behavioral Science to Advance Evidence-Based Policymaking (SBS Blueprint). The SBS Blueprint highlights the value of social and behavioral sciences to national priorities and provides all federal agencies with a high-level framework for using social and behavioral insights to enhance policy and program design and delivery. The report calls out "enhancing the health outcomes of all Americans" as one of its key priorities. It calls for a mandate to use social and behavioral science-informed strategies in health policy decisions by prioritizing policy proposals that include evidence-based social and behavioral science strategies and supporting research to help fill knowledge gaps. It also recommends increasing capacity for social and behavioral science through increased investment in a social and behavioral science-trained workforce. The SBS Blueprint places OBSSR goals within a larger context, and SBS Blueprint recommendations resonate with the OBSSR Strategic Plan.

#### **W** Operational Priority 3: Communication and Outreach

Effective communication and outreach are essential for facilitating knowledge exchange, enhancing research capacity, and maximizing the real-world impact of research findings. Clear and targeted communication bridges scientific advancements with practical applications, promoting equity, well-being, and public health.

OBSSR shares BSSR findings with the broader research community and enhances the visibility of behavioral and social sciences within NIH. We use a variety of channels to disseminate our messages, including webinars, conferences, social media, and our website. These activities help keep researchers, partners, and the public informed about the latest BSSR research findings and OBSSR initiatives and

opportunities. They strengthen our relationships with the scientific community and establish our office as a credible source of information, a crucial activity for advancing progress in BSSR.

Communication and outreach have always been an important part of our success in promoting BSSR and reaching new audiences. During our previous strategic planning period, OBSSR focused on strengthening our partnerships with NIH ICOs to better integrate BSSR within NIH. These partnerships enhanced OBSSR's promotion of BSSR through such events as our annual Behavioral and Social Sciences Research Festival (Box 9), periodic Director's Webinars, and the annual NIH Matilda White Riley Behavioral and Social Sciences Honors.

OBSSR also made significant efforts to increase the visibility and accessibility of BSSR activities.

Box 9. Keeping Our Partners Updated
About Behavioral and
Social Sciences Research

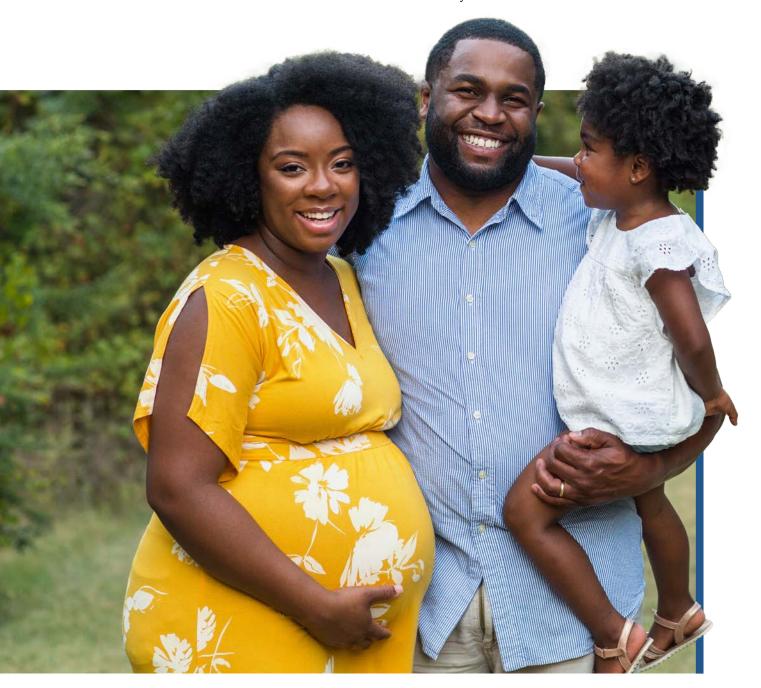
OBSSR, in partnership with the NIH BSSR-CC, hosts an annual Behavioral and Social Sciences Research Festival. The goal of the event is to keep the BSSR community, including NIH ICOs, informed about the latest NIH-funded projects and their wide-ranging impact on biomedical research. Additionally, the festival helps the NIH Institutes establish research priorities and streamline program efforts to improve effectiveness and maximize returns on BSSR investments.

We collaborated with several NIH Institutes and Centers to co-author Director's Spotlights, which have attracted a wide and diverse audience. We redesigned our website content to enhance accessibility and streamline navigation for OBSSR and BSSR activities, events, and research. We expanded our outreach efforts, increasing both email marketing reach and social media following. Additionally, in response to feedback from the research community, OBBSR partnered with the National Center for Advancing Translational Sciences to update the Good Clinical Practice for Social and Behavioral Research eLearning Course, enhancing its accessibility and adding a new training module on community and stakeholder engagement.

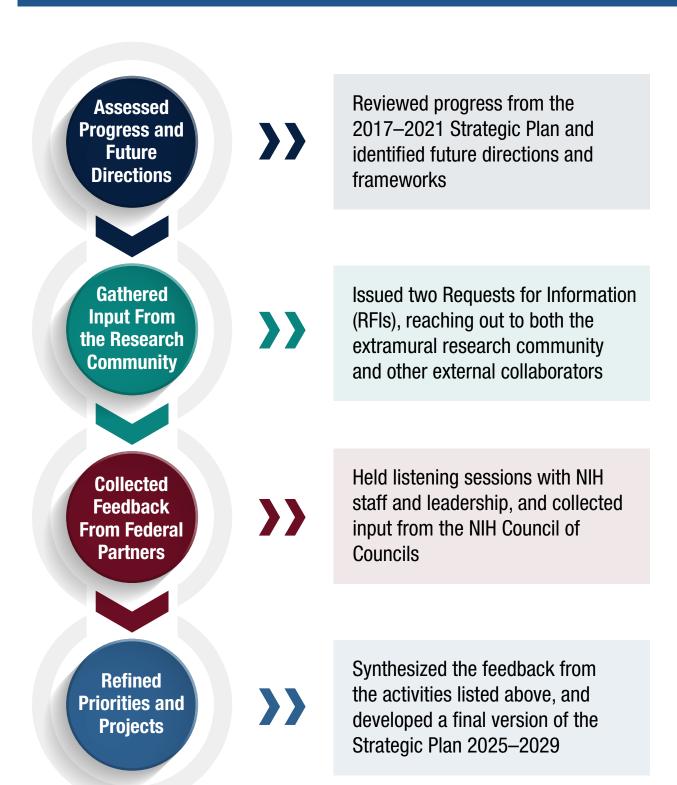
During the next five years, we will build on these successes by reaching out to new and more diverse audiences. This includes refining existing content for accessibility and plain language while creating new, impactful, and innovative materials that underscore the significance of BSSR and communicate timely findings to the research community and the public.

Recognizing the evolving landscape of our partnerships, OBSSR will strengthen these relationships and expand our outreach to nontraditional partners. This effort will involve refining communication strategies tailored to the specific needs and preferences of our audiences, aligning with our overarching goal of promoting health equity.

OBSSR will continue to advance its mission through strategic communication and outreach. By refining our methods and broadening engagement with diverse stakeholders, including nontraditional partners, we aim to enhance the impact of BSSR on public health. Through ongoing collaboration and innovation, OBSSR will continue to promote equity, improve research dissemination, and foster meaningful connections within NIH and the broader research community.



#### **Appendix A: Strategic Planning Process**



## **Appendix B: Alignment of the OBSSR Strategic Plan with the NIH-Wide Strategic Plan**

The OBSSR Strategic Plan is closely aligned with the <u>2021–2025 NIH-Wide Strategic Plan</u>, whose framework focuses on three objectives:

- 1. Advancing Biomedical and Behavioral Sciences
- 2. Developing, Maintaining, and Renewing Scientific Research Capacity
- 3. Exemplifying and Promoting the Highest Level of Scientific Integrity, Public Accountability, and Social Responsibility in the Conduct of Science

All of OBSSR's research priorities support Objective 1 of the NIH-Wide Strategic Plan—advancing biomedical and behavioral sciences by driving foundational research. Building a cumulative BSSR knowledge base by developing ontologies relevant to BSSR and promoting innovation in experimental design fit squarely within the NIH-wide strategic priorities of building resources and inventing tools and technologies to catalyze discovery.

OBSSR's commitment to the synergy between basic and applied research and our emphasis on implementation are closely aligned with the NIH-wide goals of developing and optimizing treatments, interventions, and cures and translating fundamental science findings into new and innovative treatments for disease. OBSSR's priorities for scientific capacity building mirror Objective 2 of the NIH-Wide Strategic Plan by focusing on training across career stages, supporting interdisciplinary and collaborative research, and keeping diversity, equity, inclusion, and accessibility (DEIA) at the forefront of all our efforts.

The operational priorities of the OBSSR Strategic Plan support Objective 3 of the NIH-Wide Strategic Plan. OBSSR's commitment to upholding the values of DEIA align well with NIH-wide priorities of ensuring ethical and equitable conduct of research through inclusion and fostering a safe and harassment-free work environment. OBSSR's priority of building equitable partnerships and collaborations reflects the wider NIH's support of leveraging partnerships. Additionally, our focus on improving communication among scientists with the public aligns with the goals of public engagement and ensuring accountability and confidence in biomedical and behavioral sciences.

Additionally, OBSSR's health equity crosscutting theme reflects the NIH-wide crosscutting themes of improving minority health and reducing health disparities, enhancing women's health, and addressing public health challenges across the life span.



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