STrategies to enRich Inclusion and achieVe Equity (STRIVE)

NICHD STRIVE Action Plan

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Contents

NIH > Eunice Kennedy Shriver National Institute of Child Health and Human Development

Version History

Date	Description of Change
1/6/2022	First Draft
6/10/2022	Second Draft
11/25/2022	Third Draft – Consolidation Complete
12/07/2022	Fourth Draft – Reviewed by Diana Bianchi, M.D., Director of NICHD
1/20/2023	Fifth Draft – Incorporation of comments and suggestions from leadership review
6/30/2023	Sixth Draft – Reviewed by Amanda Alise Price, PhD, Director of the Office of Health Equity and Chief Scientific Diversity Officer with incorporation of progress updates on activities through June 2023 and feedback from the NICHD workforce

NICHD STRIVE Action Plan

1. Executive Summary

Against the backdrop of nationwide tensions and a call to action to identify and address structural racism, in August of 2020 the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) launched the STrategies to EnRich Inclusion and AchieVe Equity (STRIVE) initiative. STRIVE is an internal NICHD initiative led by the Office of Health Equity (OHE) aimed to improve diversity, equity, inclusion, and accessibility (DEIA) in all aspects of its research, workforce, and scientific communities.

The STRIVE initiative includes three main goals (which were the respective missions of three committees from 2020 - 2023): 1. Reinforce diversity, equity, inclusion, and accessibility in NICHD's workforce, 2. Foster diversity, equity, inclusion, and accessibility in the broader extramural scientific workforce, including trainees, and 3. Understand how to mitigate, through research, the root causes of health disparities that may result from structural racism and discrimination, and develop potential solutions to reduce or address these disparities.

The **Diversity, Equity, Inclusion, and Accessibility (DEIA) Committee** within STRIVE aimed to create a roadmap for promoting DEIA among the NICHD workforce by gathering and examining data over the course of two years. Based on the committee's activities, we propose that the institute adopts the following two goals and corresponding action items, to provide a diverse, equitable, inclusive, and accessible workplace that allows our staff to thrive:

1. Increase collection and use of data pertaining to DEIA and the demographic make-up of the internal workforce of NICHD
2. Create an NICHD-specific training curriculum pertaining to current issues in DEIA so that NICHD staff are equipped to contribute to an inclusive and accessible work environment

The **Scientific Workforce Diversity (SWD) Committee** within STRIVE aimed to foster DEIA among the greater NIH Institutes and Centers (IC) extramural and intramural workforce and training programs. The SWD committee developed a framework (see appendix) to approach the challenge of understanding root causes of the dearth of scientific workforce diversity through review of internal data, engagement with key stakeholders, review of literature and environmental scanning, consultation with Equity Technical Assistance Consultants, facilitating brown bag information sessions and holding a workshop. Diversity was defined broadly and included information on the racial, ethnic, gender, and disability identification of the workforce trained through NICHD based on funded programs. Based on the committee's activities, we propose the institute adopt the following three goals and corresponding action items, to provide a diverse workforce amongst NICHD:

1. Establish baseline training and workforce diversity across NICHD (intramural and extramural trainees, extramural principal investigators/principal directors (PIs/PDs) and track changes in response to policy and practice modifications
2. Identify gaps and revise policies and practices for intramural and extramural scientific training programs to promote an inclusive and equitable workforce
3. Engage internal and external stakeholders to gather additional insight

The **Health Disparities Research (HDR) Committee** within STRIVE aimed to address health disparities research among NICHD populations – children, pregnant people, and people with disabilities. Based on the committee's activities, we proposed that the institute adapt the following three goals and corresponding action items, to increase the breadth and quality of health disparities research supported by NICHD, informing efforts to increase health equity among NICHD populations:

1. Promote community-partnered research, inclusive of community-led research, to understand and reduce health disparities and promote health equity
2. Include populations that experience health disparities in all NICHD human subjects' research
3. Incorporate intersectionality of identities into health disparities research

Each committee within STRIVE has been charged with development of draft action plans to be incorporated into this NICHD consolidated Action Plan that will ultimately live within the 2020 NICHD Strategic Plan. This Action Plan comprises immediate, intermediate, and long-term **actions** with specific, measurable, achievable, relevant, and time bound (SMART) metrics for consideration by NICHD leadership.

2. Action Plan Development Team

This plan was developed by NICHD Extramural, Intramural, and OD staff members. All three STRIVE Committees (DEIA, SWD and HDR) wish to thank all those who contributed to the creation of the plan.

The Committees would also like to extend their gratitude to Charisee Lamar (former OHE director), Shavon Dickerson (former HDR Co-Chair), Triesta Fowler (former HDR Co-Chair), Ravi Ravindranath (former SWD Co-Chair), and Louis DePaolo for their contributions to the STRIVE committees and activities prior to the development of the action plan. We also appreciate the review of the Action Plan draft by Stephen Gilman, Erin Walsh, Anirban Banerjee, and Yvette Pittman from DIR to ensure inclusion of the ongoing efforts in the Division of Intramural Research.

Core Team Members

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- Stephen Gilman (DIR)

- Erin Walsh (DIR)

- Anirban Banerjee (DIR)

- Yvette Pittman (DIR)

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3. Background

In 2016, an expert review panel was charged to assist the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development in considering how to support the Division of Extramural Research (DER) and the Division of Intramural Research (DIR) in accomplishing their goals as they relate to addressing and eliminating health disparities and improving the number of underrepresented individuals who make up the scientific workforce.

As per the report, the panel commented that the current and changing United States demographic has major implications for health, science, and the scientific workforce. They noted that a demographic shift coupled with economic inequality results in persistent health disparities. Also of mention was that disparities in health are often complex, lifelong, and intergenerational. They suggested that a diverse pipeline is required to meet the needs of a global population and a vibrant science, technology, engineering, mathematics, and medicine (STEMM) health workforce.

Given its mission, the NICHD is uniquely positioned to be a leader in reducing health disparities, promoting health equity, creating a diverse scientific workforce, and communicating to the public.

Specifically, recommendations by the panel were for the NICHD Office of Health Equity to:
- Serve as a diversity, equity, inclusion, and accessibility think tank for NICHD, contributing advice on the research domains within the extramural and intramural programs to strategically address health disparities
- Help to foster greater diversity within NICHD itself and support the institute and its staff in fostering a positive culture around diversity
- Create strategies to increase diversity among funded investigators
- Foster bidirectional communication between NICHD and external stakeholders

- Identify goals and establish metrics for measuring progress towards diversity, equity, inclusion, and accessibility goals

In 2020, in response to the murder of George Floyd, the shooting of six Asian American women in Georgia, and the increasing health disparities experienced during the COVID-19 pandemic, NICHD established the STRIVE initiative. This initiative, built upon the foundation of the Office of Health Equity established after the 2016 report, provided a new perspective by which the institute could assess progress towards achieving diversity, equity, inclusion, and accessibility within NICHD's workforce, coordinated innovative approaches to diversify and sustain the external scientific workforce, advised the Director on health disparity research priorities, and fostered integration across the institute's portfolios.

To achieve these objectives, STRIVE created three committees: 1. DEIA Workforce: Diversity, Equity, Inclusion, and Accessibility within NICHD's internal workforce[1], 2. Scientific Workforce: Diversity of Intramural and Extramural trainees and extramural investigators, and 3. Health Disparities Research: Including DIR, Division of Population Health Research, and DER portfolios.

4. Lessons Learned

Diversity, Equity, Inclusion, Accessibility (DEIA)

The DEIA committee developed a plan of action to understand the characteristics and perspectives of the NICHD workforce as it relates to DEIA. This included analysis of demographic data internal to NICHD, analysis of data related to hiring and recognition, a survey of staff perspectives on the topic of diversity, equity, and inclusion, and a review of the evidence base to promote DEIA through employee and supervisor training and staff engagement. The key lessons learned are described below:

Data Analysis – The subcommittee examined NICHD's workforce demographics across a 5-year timespan (2017-2021) to establish a baseline for comparison and to examine historical trends. The committee also compared this data to NIH data to determine if NICHD was similar to, or divergent from, the agency data overall. In 2021, the NICHD workforce was primarily female (60.08% to 39.92%), white (55.74%; Black/African American, 18.46%; Asian, 19.96%; Hispanic/Latino, 3.58%; Hawaiian/Pacific Islander, 1.01%; American Indian/Alaska Native, 1.32%), and did not identify as having a disability (87.76%; Non-Targeted Disability, 6.21%; Targeted Disability, 2.45%, Not identified, 3.58%). NICHD data generally mirrored NIH trends. Based on available data, the committee summarized rating and non-rating-based award data in FY 2021, promotion distribution and quality step increase by sex, race/ethnicity, and disability status. Promotions were more likely for female employees, white employees, and persons

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[1]The EDI Workforce Committee was restructured to the Diversity, Equity, Inclusion, Accessibility Committee to account for the institute's commitment to accessibility

without a disability. Rating-based award data generally tracked the distribution of staff in sex, racial/ethnic, and disability groups, with a notable higher distribution in quality step increase for Black/African American and Asian Groups. The committee identified that the institute needs: 1) better access to personnel data and the ability to perform analyses and an ability to compare NICHD trends either to NIH overall or other similarly sized IC, 2) more transparency related to processes and data controlled by the NIH Office of Human Resources related to selection, 3) increased data in particular occupations or job series (e.g., Title 42), 4) the ability to gather demographic information for trainees and fellows as part of exit surveys to examine trends or differential experiences, and 5) additional guidance on the practices that will be used to assess the progress of the institute toward the goals.

Pulse Survey – In February 2021, NICHD conducted a pulse survey with all full-time employees that included collection of information on the diversity, equity, and inclusion climate at NICHD and demographic and division information for respondents. The effective response rate for the survey was 55%. The Pulse Survey findings reveal favorable staff sentiments regarding most of the diversity, equity, and inclusion items, including large shares of respondents indicating they feel valued and that they are treated with respect. There are a few exceptions, including perceptions of having to work harder than others to be valued equally, and impressions that NICHD is not doing enough to foster career development. Feelings of belonging at NICHD are mixed: the question on whether respondents feel they belong at NICHD received high levels of agreement, while the question on having found one or more communities or groups to belong to at NICHD received low levels of agreement. On several questions, responses differed substantially by Division, race/ethnicity, gender, and disability status.

Employee Training Curriculum – The committee reviewed the existing employee training including the NO FEAR/Prevention of Sexual Harassment course and the implicit bias training currently offered through NIH. NICHD also offered Bystander Training, including tailored sessions for supervisory and non-supervisory staff that was completed by all full-time employees. The executive leadership of the institute completed the Racial Equity Institute's Groundwater Training and were able to share materials with the training review committee. The committee also reviewed the literature on evidence-based training for DEIA, determined potential approaches, and implemented a new course that was optional for staff on psychological safety in the Fall of 2022.

Scientific Workforce Development (SWD)

The SWD committee developed a framework to approach the challenge of understanding root causes of the dearth in scientific workforce diversity through review of internal data, engagement with key stakeholders, review of literature and environmental scan, consultation with Equity Technical Assistance Consultants, brown bag information sessions and a workshop.

The key lessons learned are described below:

Data analysis – To establish a baseline from which the SWD committee could work, the Office of Science Policy, Reporting, and Analysis (OSPRA) extracted data from all competing applications and non-competing funded grants with primary NICHD Administrative IC assignment spanning the timeframe of 1989-2020. Variables used for each principal investigator were age at time of application, disability status, race, and ethnicity. The analysis included data by gender of approximately 181,000 points and 43,000 applicants. Reporting was done using descriptive statistics, case control study, assessment of targeted programs, career trajectory and a time series analysis.

Review of Literature and Environmental Scan – A consultant from the Education Services Branch of the NIH Library performed a search
to identify programs, speakers, and relevant literary articles and manuscripts that focus on improving and enhancing diversity, equity, and inclusion.*

The primary takeaway from this review aligned with the baseline data analyzed by OSPRA and the UNITE initiative findings. The UNITE initiative is a NIH initiative established to identify and address structural racism within the NIH-supported and among the greater scientific community. The environmental scan showed that most published articles focused on single institution programs, were funded by the National Science Foundation, and relied heavily on editorials and conference summaries. The review showed that there was a paucity of programs across academic institutions that had a primary focus of enhancing diversity, equity, inclusion, and accessibility. The consultant compiled a list of programs across the U.S. that targeted underrepresented minorities and women. The programs and articles are available in the appendix.

*Christine Caufield-Noll was a key contributor, and we honor her contribution; she passed away suddenly in January of 2022.

Brown Bag Information Sessions – An overview of NICHD targeted programs by program staff leading specific grant mechanisms was done in the form of a brown bag series. Presentations were done for the intramural training program, predoctoral training awards (F series), postdoctoral training awards (K series), and diversity supplements. Each presentation focused on standard questions for each program. The review addressed the following:
- An overview of the program
- NICHD outreach efforts to attract applicants
- Methods used by NICHD to select candidates
- Success rate of applicants to awardees in any given cycle of review and common pitfalls of submissions
- Tracking used for funded candidates
- Ideas for addressing challenges

The reviews were informal but were valuable in that they all showed that the NICHD STEMM ecosystem lacks diversity, could benefit from additional resources, and needs new and innovative strategies to impact change.

Equity Technical Assistance Consultation (ETAC) – There was an opportunity for STRIVE to receive feedback and support from an HHS ETAC as part of the larger NIH structural racism effort. NICHD submitted a request for support to:

- Develop a data driven approach to partner with individuals, communities, and institutions to diversify and train the next generation of biomedical and biobehavioral scientists
- Develop recommendations for meaningfully engaging communities that fall under the NIH-designated health disparities populations (American Indians/Alaska Natives (AI/AN); Asian Americans; Blacks/African Americans; Hispanics/Latinos; Native Hawaiians and other Pacific Islanders (NHOPI); Sexual and gender minorities (SGM); Socioeconomically disadvantaged populations; and Underserved rural populations), as well as people with disabilities, so that their lived experiences and perspectives better inform NICHD's research priorities and funding opportunities
- Develop evaluation metrics to assess the impact of adopting recommendations; specific recommendations from the Equity Technical Assistance Consultation for the SWD committee are in the appendix

Listening Sessions – Two four-hour long sessions were held virtually to better understand perspectives on scientific workforce diversity from four audiences: trainees, early-stage investigators (ESIs), established PIs/PDs, and academic leaders and professional organizations. Feedback was collected primarily through structured questions, posed to attendees by a moderator, word clouds, and polls. Overwhelmingly, mentoring and access to resources for applying to NICHD were the most consistent challenges and barriers reported by the participants. Cross-cutting concerns included structural racism, implicit bias, financial constraints, and cultural insensitivity.

Workshop – Insights gleaned from the data analysis, brown bag presentations and listening sessions culminated in the final activity of the SWD; a workshop titled "Path to Enhancing Scientific Diversity," which was hosted by the SWD committee on May 18th, 2022. The overarching principles applied to the development of the agenda, selection of speakers, and participant distribution list was anchored in continuity as a pillar for success, stakeholder engagement both as a process and a metric, mentoring that incorporates cultural considerations and the restraints of policies, recruitment and retention, and highlighting models and best practices to establish long term, sustainable partnerships. The workshop was well attended, and the committee has incorporated recommendations into the action plan.

Health Disparities Research (HDR)

In reviewing the state of the science for health disparities research, the HDR committee noted three overarching principles to consider when enacting the proposed goals described below. To arrive at these principles and goals, the HDR committee pursued two main data gathering approaches: analyzing existing data and providing formal opportunities to hear from and engage with the community. Specifically, these approaches involved a formal portfolio analysis led by OSPRA, five thematic workshops open to the public, and a crowdsourcing campaign to facilitate broader input and engagement. The three principles identified were:

Complexity – Health disparities research is not reductive or simple. To understand the causes of, and ultimately reduce health inequity, methods that capture the interrelationships among institutions, systems, environments, and individual factors across time will be required. Innovative frameworks are needed to account for the dynamic interactions that occur within complex systems that perpetuate inequities. Research that captures the lived experiences of participants and inter-generational influences requires thoughtful and intentional consideration of inclusion in every aspect of the research process. Biomedical, social, and behavioral research approaches, inclusive of qualitative and quantitative methodologies, will be needed. Consequently, richer data sets (e.g., extensive phenotypic data and diversity and size of sample), more nuanced analytic approaches, and better tools may need to be developed.

Longevity – Meaningful collaborations between researchers and community groups require genuine connections to lead to sustained partnerships. These relationships take substantial time and effort and do not align well with grant timelines. Formal recognition of the time and resources required for community-engaged research to build, cultivate, and sustain relationships pre- and post-project periods is necessary to "even the playing field," such that investigators conducting health disparities research are not disadvantaged relative to their peers whose work represents a large proportion of the current NIH portfolio and does not involve such collaborations.

Humility – Health disparities research can sometimes be approached from a deficit model which negatively impacts relationships between the researchers and study participants. Regardless of the background, experience, and identity of the researchers, and those of the research participants, PIs and funders should approach research subjects with a deep level of humility and respect regarding the community's knowledge of the health priorities and inequities, as well as the potential causes or solutions to address them. Humility is required to build trust, engagement, and impactful research, and serves as a necessary foundation for sustained, meaningful collaborations and partnerships.

5. Goals, Activities, and Measures

DEIA

Goal 1: Data-Driven DEIA Actions

Goal Description

Continue data collection efforts to support DEIA-related actions, including updating our current data practices, collecting additional qualitative data, and data sharing practices.

Current Actions

	Activity	Measure(s)
1	Continue existing data collection efforts and report findings to the institute, where possible report trends over years. Propose action plans on an annual basis to address any areas of concern	• Conduct Federal Employee Viewpoint Survey analysis, Town Hall report, and action plan **[Completed]** • Conduct Pulse Survey reported at Town Hall (one-time; 2021) **[Completed]** • Conduct Workforce Civility and Equity Survey (every 3 years; replaced Anti-Harassment Survey) analysis, Town Hall report, and action plan • Collect NICHD workforce demographic data (as available), analysis, Town Hall report, and action plan
2	Examine data from the NIH Equity, Diversity and Inclusion (EDI) office to understand hiring and promotion practices; benchmark data to NIH for comparable time periods	• Conduct analysis of data **[Completed]** • Work with EDI on reporting and action plan

	Activity	Measure(s)
3	DEIA Coordination and Communication Improvement	• Conduct effort to better understand involvement in all NIH DEIA activities and communication preferences **[Completed]** • Develop polling questions on DEIA communication strategies and formats via Microsoft Forms, and distribute to 12 Key Stakeholders of various NIH DEIA Affinity groups **[Completed]** • Adjust communication strategy and increase utilization of meeting reports, Teams updates, Director's Newsletter, and STRIVE inbox **[Completed]**

Identified Gaps

While we have collected significant amounts of data, several gaps that will inform future actions have been identified:

Types of demographic information— Currently, there are recognized weaknesses with existing demographic categories as it pertains to inclusiveness. Future actions should include additional identity characteristics, including sexual orientation and gender identity data, and more comprehensive disability-status data. We cannot understand issues in our workforce without understanding the baseline characteristics of our workforce. Additionally, collecting this data signals that we, as an institute, value the inclusion of these identities and prioritize identifying issues specific to these communities. While we recognize that these are not demographics currently collected, we encourage NICHD to make every effort to include them where possible or advocate for their inclusion at the NIH level.

Qualitative data— We encourage the collection of additional qualitative data, including in surveys and through listening sessions. Our Pulse survey included several open-ended text boxes that allowed respondents to expand on their feelings and experiences. These were invaluable insights, and we encourage future opportunities to systematically collect and analyze qualitative responses using scientifically valid methods and procedures that protect the anonymity of respondents.

The DEIA Committee has also made efforts to share our findings with the institute. We encourage continued transparency and dissemination efforts.

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Understanding baseline culture through holding listening sessions/focus groups (EDI facilitator) and offer opportunities for staff and intramural trainees to provide similar input anonymously	• Hold up to 4 listening sessions **[Completed]** • Finalize report • Develop Action Plan • Create an education and awareness plan of NIH resources to address staff concerns • Propose a training and education program to address staff and intramural trainee concerns
2	Continue to work with EDI to enhance data for the institute and increase inclusion of populations not currently included in standard reports	• Meet with EDI to understand current data structure and reporting • Share desired categories and potential analyses of intersectional data to better understand and address workforce needs

Intermediate (1-2 years)

	Activity	Measure(s)
1	Participate in the upcoming NIH Workforce Civility and Equity Survey and benchmark results as institute baseline for future activities	• Complete climate survey analysis, Town Hall report, and integration of findings into action plans • Review and revise action plans based on survey findings
2	Establish key performance indicators associated with management processes that support the science and institute performance monitoring and ensure data transparency	• Work with EDI to develop data and metrics for promotion decisions, laboratory budgets, training and support opportunities, and awards data by fiscal year with trend data • Expand data for awards meeting to include review of trends by Division • Ensure consideration of equity during promotion, award, budget, and training opportunity review meetings • Educate Division Directors and Supervisors on programs, opportunities, and nomination processes to ensure broad consideration of staff

	Activity	Measure(s)
3	Engage leadership consultant to conduct 360-degree reviews of leadership and supervisors, including process to measure leadership/supervisors' effort to incorporate feedback	• Conduct 360 review of Top Five leadership (with potential inclusion of Division Directors) with a survey that includes DEIA culture • Review findings with leadership team and determine extension to supervisory staff • Develop action plan for training if needs arise during 360 review to include coaching or coursework

Long-Term (3+ years)

	Activity	Measure(s)
1	Conduct analysis of historical hiring data to understand how candidates from diverse backgrounds proceed through the process and inform future actions	• Review UNITE analysis of hiring at NIH when available • Determine if UNITE analysis is sufficient for NICHD to use for guidance for recruitment efforts and hiring practices
2	Identify best practices for recruitment process to enhance equity and inclusion	• Share best practices for hiring that is consistent with DEIA hiring including comprehensive outreach, diverse interview panels, and standardized performance-based interviewing • Promote inclusion of an interview question related to DEIA culture promotion and initiative in management level interviews

Goal 2: Develop Training Curriculum

Goal Description

Create an NICHD-specific training curriculum pertaining to current issues in DEIA so that NICHD staff are equipped to contribute to an inclusive and accessible work environment, including the development and assessment of methods to recruit and retain a diverse workforce.

	Activity	Measure(s)
1	Ensure NICHD personnel participate in training that promotes understanding and promotion of a DEIA culture	• Measure level of participation in all-staff training (No FEAR, Implicit Bias, Bystander) • Participate in Top 5 Leadership trainings (e.g., Race Equity Institute's Groundwater) **[Completed]** • Promote inclusive training on Psychological Safety in the Workplace Training
2	Examine existing mechanisms available to NICHD to recruit and hire diverse talent; provide education to hiring officials on the existence of and use of these programs	• Examine current participation in and selection from mechanisms available to NICHD (e.g., fellowships, Pathways internships, Schedule A) • Develop recruitment exhibits and materials for scientific conferences that reach diverse audiences to highlight NIH training and employment opportunities (e.g., Society for Advancement of Chicanos/Hispanics & Native Americans in Science; and Annual Biomedical Research Conference for Minoritized Scientists) • Develop resources for hiring officials to promote use of programs • Encourage broad outreach and promotion of these programs to NICHD audiences through use of webpages, social media, and outreach campaigns
3	NICHD Worklife Enrichment (WE) Committee holds a Diversity Celebration on an annual basis highlighting the culture, scientific/professional achievements, and issues related to different cultural groups	• Participate actively in events to create awareness and celebrate the diversity in our workforce • Review topics and groups highlighted

Identified Gaps

Given the current lack of an institute level curriculum to implement evidence-based trainings for staff at all career levels and tracks, the institute may harbor DEIA issues that will be left unaddressed. We should develop a curriculum that will build on current offerings across NIH and fill gaps or tailor to the NICHD workforce as necessary. The curriculum should include specific trainings targeted to supervisors and leadership. The goal of such a training curriculum is to increase staff knowledge and awareness of specific behaviors and to explore approaches to enhance our workplace and become advocates for DEIA.

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Develop a candidate identification tool to enhance search for Title 42 and leadership positions within the institute	• Explore implementation plan to utilize the Chief Officer for Scientific Workforce Diversity (COSWD) tool with selecting officials • Document use of COSWD tool in 50% of searches for scientific positions and document number of resulting individuals who made the certification list from human resources

Intermediate (1-2 years)

	Activity	Measure(s)
1	Enhance training of personnel in DEIA with a focus on evidence-based training that promotes inclusion and considers intersectionality	• Develop an IC level, evidence-based training curriculum for staff at all career levels and tracks • Develop specific trainings for supervisors to promote an inclusive work culture
2	Ensure employees at all levels can develop and enhance their career	• Establish and approve a process for individual development plans for all NICHD staff • Review trend data by division for individual development plan establishment • Establish a method to share information pertaining to career advancement and professional development opportunities/resources • Share data on personnel retention and development in Town Halls and through the intranet annually • Evaluate resources for positive employee development (coaching, peer mentoring, and cohort groups)

	Activity	Measure(s)
3	Increase and enhance information available to staff specifically related to training mechanisms, opportunities, and policies	• Establish communications plan and central website to promote information on training and leadership programs at the institute and NIH level • Determine central points-of-contact for self-nomination for award or detail opportunities • Increase supervisor education on training mechanisms and opportunities for staff • Report trends by Division on training and education • Annually query Division leadership on training needs and resources
4	Enhance training and transparency in reward and recognition programs	• Provide resources to supervisors on methods to reward and recognize employees • Promote self- nomination mechanisms • Establish a method to monitor awards, recognition processes, and career advancement • Share data on personnel recognition and awards in Town Halls and other methods on an annual basis
5	Empower staff to enforce accountability standards and have the appropriate systems and policies in place to promote compliance	• Review current trainings offered by NICHD and NIH for staff related to the Office of Human Resources including Employee Relations and Civil, in addition to EDI, and the Ombudsman • Complete gap analysis of trainings not offered or not available that could be considered for NICHD to expand, offer and/or facilitate • Monitor number of Equal Employment Opportunity complaints and cases in collaboration with EDI and the Office of Human Resources; analyze cases for trends and develop corrective action plans

Long-Term (3+ years)

	Activity	Measure(s)
1	Encourage active outreach to other ICs to gain knowledge and refine DEIA activities and increase efficiency; pursue opportunities to partner on training	• Monitor number of trainings offered to staff either at other institutes or in partnership with other institutes each year • Track number of staff who participated in cross-trainings • Gather feedback from staff on cross-trainings
2	Expand opportunities for DIR PIs to partner with Historically Black Colleges and Universities (HBCUs) or Minority Serving Institutions (MSIs) nationally, to mentor students from diverse backgrounds for participation in established NIH training programs at the post-baccalaureate and graduate student levels	• Expand number of mentoring and/or training partnerships established with national HBCUs and/or MSIs each year • Monitor number of PIs who participated in mentoring and/or training programs with HBCUs/MSI students • Track number of post-baccalaureate mentoring and/or training programs established
3	Establish a framework for fostering an innovative culture across the institute that supports process improvements, customer needs and satisfaction, collaboration across and beyond the organization, agile approaches, and empowering staff	• Benchmark best practices gathered for tracking and facilitating DEIA internally and externally • Include DEIA in activities and measures established and implemented for innovation • Pursue new and innovative methods for fostering DEIA and engaging staff in programs and projects • Gather feedback from staff regarding feelings of empowerment

In addition to the goals pertaining to data and training (the focus of our committee's efforts), we encourage the IC to adopt a standard procedure and guidelines for the new Performance Management Appraisal Program (PMAP) elements regarding DEIA and how staff will be evaluated on their performance related to this element. It is suggested that general guidance on alignment with staff PMAP assessments, and encouraging staff to document and enumerate roles, would be a proactive step in this process. Additional deliberation on how best to highlight staff members contribution to NICHD's mission and enhancing a positive work climate via DEIA goals is likely needed.

SWD

Goal 1: Data Collection and Analysis

Goal Description

Evaluate baseline training and workforce diversity across NICHD (intramural and extramural trainees, and extramural PD/PIs). This analysis will be used to inform the actions in goals 2 and 3 and monitor progress in response to policy and practice changes.

Current Actions

	Activity	Measure(s)
1	Develop an extensive longitudinal database of NICHD applicants and grantees for the past 30 years	• Establish extensive databases and data tables **[Completed]**
2	Conduct a full descriptive statistics analysis of 30-year NICHD sample by racial and ethnic groups. Include analyses of application behavior, award rates, person funding rates, award types. Analyze other factors that may affect funding outcomes, such as gender, degree category, research institution, age, research topic, and cohort effects	• Complete analyses and present to STRIVE SWD and/or OHE **[Completed]** • Prepare reports, publications, and presentations to distribute or present **[Completed]**
3	Analyze, using rigorous comparison groups, when possible, the impact of specifically targeted programs (F31, Diversity Supplement, and Loan Repayment) on the diversity of applicants and grantees	• Complete analyses and present to STRIVE SWD and/or OHE **[Completed]** • Prepare reports, publications, and presentations to distribute or present **[Completed]**
4	Examine how NICHD applicants and awardees from different racial and ethnic groups access NIH support at various career stages	• Complete analyses and present to STRIVE and/or OHE **[Completed]** • Prepare reports, publications, and presentations to distribute or present **[Completed]**
5	Use rigorous analytical approaches to assess differences in funding outcomes and applicant behavior across demographic groups after controlling for other key factors	• Complete analyses and present to STRIVE SWD and/or OHE • Prepare reports, publications, and presentations to distribute or present
6	Identify if significant differences exist in organizational affiliations and access to non-NIH funding across demographic groups for NICHD applicants	• Obtain organizational affiliation and non-NIH funding data • Complete analyses and present to STRIVE SWD and/or OHE

	Activity	Measure(s)
7	Assess the relationship between overall NICHD funding over time and the distribution of that funding to PIs of varying racial and ethnic groups	• Complete analyses and present to STRIVE SWD and/or OHE **[Completed]** • Prepare reports, publication, and presentations to distribute or present

Identified Gaps

The NICHD's workforce diversity activities, including an extensive data analysis, stakeholder outreach, workshop, and listening sessions, have helped identify potential strategies for improving representation. However, the data analysis, and stakeholder and expert feedback also pointed to areas where additional data collection and analysis are needed.

Additional analyses (from existing data) will be needed to address the following issues, among others:
- Demographics of NICHD Institutional Research Training Grants (T32) pre-doc and post-doc recipients, especially for recent years
- Career trajectories, application behavior, and funding outcomes for individuals who self-identify as more than one race
- Demographic trends in programs that have been established more recently, and thus where the number of observations is relatively low—including the K99 program and NICHD-funded center and network programs

Additional data collection is urgently needed on the following populations:
- Individuals with disabilities
- Members of racial and ethnic minority subgroups, including NHOPI, AI/AN, and Asian subgroups (e.g., Southeastern Asian, Filipino, etc.)
- Other populations that are considered disparity populations but are not underrepresented racial or ethnic minorities – including SGM, rural, low socioeconomic status, first generation in higher education, and individuals with disadvantaged backgrounds
- Individuals who participate in NICHD and NIH intramural training programs

Additional qualitative data collection is required to explore and develop ways of addressing the following issues:
- Mentoring and the lack of role models for diverse individuals
- Poor cultural fit and unsupportive environments within research institutions
- The so-called "minority tax," where underrepresented individuals are burdened with a variety of activities and expectations, many ostensibly to address DEIA, that interfere with their ability to advance their own research careers
- Financial barriers to retention in the scientific research workforce
- The disparate impact of a lack of support for work-family balance in the scientific research workforce

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Extend data use agreement with Office of Extramural Research and obtain follow-on data for FY 2021-2022 to extend data set	• Execute data use agreement renewal • Obtain follow-on data received
2	Use the current data set to conduct descriptive and case-control analyses of the "more than one race" group, including the intersection of this race group and ethnicity; explore these data to see if subgroups and specific patterns can be identified	• Complete analyses and present to STRIVE SWD group and/or OHE • Prepare reports, publications, and presentations to distribute or present within NICHD/NIH
3	Map STRIVE SWD Action Plan to corresponding elements in NIH-wide DEIA plan and COSWD plan	• Map STRIVE SWD Action Plan to make sure elements correspond to NIH-wide DEIA and COSWD plan

Intermediate (1-2 years)

	Activity	Measure(s)
1	Assess the demographics and outcomes of T32 postdoc recipients for the years 2011-2021 and evaluate how this cohort compares with the earlier cohort previously analyzed	• Complete analyses and present to STRIVE SWD group and/or OHE • Prepare reports, publications, and presentations to distribute or present within NICHD/NIH
2	Establish efforts to monitor demographic distribution of PIs in the NICHD portfolio over time, especially in K99s, R01 and other high value grants, and large clinical research studies and networks	• Conduct a standard operating procedure for further analysis and ensure monitoring is internally published and implemented
3	Implement efforts to conduct rigorous *qualitative* research to describe and address specific barriers to long-term career success across diverse populations. Include, in this effort, data on formal and informal mentoring in diverse populations, cultural barriers, the so-called "minority tax", addressing financial barriers to research careers, balancing family and work for individuals in research careers, and other factors	• Obtain Office of Management and Budget (OMB) approval if required • Develop protocols • Present completed studies and results to OHE and NICHD leadership

Long-Term (3+ years)

	Activity	Measure(s)
1	Implement a plan to obtain data on disability status of NICHD researchers, beyond NIH-collected data, and to assess the funding outcomes of this group over time	• Obtain OMB approval if required • Develop database • Present completed studies and results to OHE and NICHD leadership
2	Implement a plan to describe and address specific barriers to long-term career success for researchers with disabilities; include stakeholder feedback in this effort	• Obtain OMB approval if required • Develop protocols • Present completed studies and results to OHE and NICHD leadership
3	Develop a standard operating procedure to obtain data on intramural trainees and to link these data to extramural research data	• Obtain OMB approval if required • Develop database
4	Implement an analysis of long-term career trajectories of individuals who participate in NICHD intramural training programs	• Complete analysis and present to DIR, STRIVE SWD, and/or OHE
5	Develop protocols based on stakeholder feedback for obtaining data related to the needs of distinct subgroups of interest, including specific American AI/AN tribes, Asian, NHOPI, SGM, Asian subgroups, individuals with disadvantaged backgrounds, rural residents, and others	• Obtain OMB approval if required • Develop protocols • Present completed studies and results to OHE and NICHD leadership • Review nomenclature for special interest groups based on other ICs published data

Goal 2: Policy and Practices Review

Goal Description

Identify gaps and revise policies and practices in funding opportunity announcement development, scientific review, notice of grant awards, administrative supplement administration and eligibility, targeted program enrollment and programmatic elements that impact outreach, recruitment, and retention in the workforce ecosystem at NICHD, in academia and within the biotechnology industry.

	Activity	Measure(s)
1	Support NIH wide DEIA programs to promote diversity in the scientific workforce, including F31 diversity fellowships and diversity supplements	• Monitor number of F31 fellowships • Track funding for F31 fellowships • Track funding for diversity supplements
2	NICHD Brown Bag Presentations on the current fellowship, training, intramural and diversity supplement programs to present an informal overview of their impact and relationship to DEIA within the IC	• Hold Brown Bags, information shared should include: NICHD outreach efforts to attract applicants; methods used by NICHD to select candidates; success rates of applicants to awardees in any given cycle of review, common pitfalls of submissions, tracking used to follow career trajectories of funded candidates, and ideas for addressing challenges identified **[Completed]**
3	Monitor NICHD participation in the Support for Research Excellence (SuRE) programs (PAR-21-169; PAR-21-173)	• Monitor participation statistics • Monitor NICHD specific application awards

Identified Gaps

From data analysis and stakeholder feedback, NICHD's outreach efforts to encourage grant applications from underrepresented groups have not been fully successful. Specific investigator populations that could benefit from additional direct outreach efforts include:

- Minorities located in all institutions, especially including research-intensive institutions
- AI/AN and black males
- Researchers in basic and translational science areas where there is the greatest disproportional representation of underrepresented minority (URM) groups
- All career stages, especially the researcher stage, where many diverse individuals enter the NIH ecosystem
- All minority groups, including Asians and Asian subgroups
- Individuals with disabilities

Institutional support is critical for researchers at all career stages. NICHD leadership has important connections to research deans, department chairs, and other institutional leaders. Outreach efforts to the institutional leaders may help improve diversity representation, especially if NICHD leadership shares the data that support the need for specific institutional efforts. Key institutional leaders should be urged to: 1. Promote research opportunities, both within and outside of NIH, to faculty at all levels, 2. Consider institutional efforts to address financial and non-financial barriers to success ("minority tax"), 3. Consider well-targeted investments of institutional support, and 4. Target institutional efforts to all career stages, especially the researcher stage where many diverse individuals enter the NIH ecosystem. New programs from the NIH Common Fund, such as the Faculty Institutional Recruitment for

Sustainable Transformation (FIRST) program could be a vehicle to promote this change and leadership should engage these programs for departments and areas of focus in line with NICHD's populations of interest.

Subsequent grant data indicate that the F31 program and the loan repayment program (including loan repayments not specifically targeted) have a positive effect on workforce diversity, but these programs have limited reach. NICHD could expand support for these effective programs.

Although minorities are underrepresented at all career stages, NICHD has small, targeted programs available only at early career stages. NICHD may wish to consider developing specific targeted Notice of Funding Opportunities (NOFOs) to support diverse applicants in all career stages, especially including the PI/researcher stage. At the earlier career stages, additional data analysis and monitoring of T32s, K12s, and large programs could help the institute identify ways to improve diversity within these programs. Incentives, additional review criteria, sunsetting, and other methods could be considered. For later career stages, where many underrepresented individuals submit their first individual applications, diversity focused K24, Method to Extend Research in Time (MERIT), and R01 programs could provide opportunities for experienced URM PIs and support role models for URM scientists at earlier career stages.

The expertise and experience of NIH program officers is needed to develop outreach materials that incorporate effective best practices to meet the needs of diverse applicants. This includes encouragement of engagement with program officials, the value of resubmission and continued application, emphasis of multiple pathways to success, and encouragement to apply for high value, longer-term awards as appropriate. These materials should be pretested with diverse PIs at all career levels combined with training and sensitization of program officers at NICHD. Grantsmanship has been identified in the literature and by stakeholders as an important need. NICHD could develop a standard grantsmanship workshop for all grantees, but with special attention to the needs of diverse applicants. These workshops would be most utilized if they were held on a regular, well-publicized schedule and their availability was advertised extensively across a wide range of institutions, including with a NIH Notice. Making the webinar materials available via NIH Videocast or similar forum, so they can be viewed at the recipient's convenience, would be helpful. It will be especially important to pretest the workshop materials with diverse PIs at all career levels.

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Incorporate messages in NICHD outreach efforts to encourage grant applications from underrepresented groups and target directly to groups of special interest; include NICHD and NIH wide data that directly addresses grantee concerns	• Revise, develop, and coordinate, materials with DER, DEA, and Communications
2	Identify key institutional leaders and begin an outreach effort directed at research institutions and meetings/conferences, spearheaded by NICHD leadership, to share information about the need for increased diversity among funded researchers	• Establish outreach/engagement contract • Identify institutional leaders/stakeholders • Identify key meetings/conferences • Create targeted messages • Identify avenues for follow-up for interested organizations
3	Add language (where possible) to specific NOFOs, beyond the current NIH required language, to encourage applications from more diverse teams of investigators	• Develop consensus language • Incorporate language in NOFOs

Intermediate (1-2 years)

	Activity	Measure(s)
1	Increase support for F31 predoctoral fellowships, a program that has a strong record of positive impact for URM researchers	• Track F31D recipients • Monitor F31D spending
2	Increase support for Loan Repayment (LR) programs, which (even when not specifically targeted) have a consistent long-term record of positive impact for URM researchers	• Track LR recipients • Monitor LR spending

	Activity	Measure(s)
3	Form a group of NICHD program officers to develop sample presentations and other resources for program staff to use in their outreach efforts, to meet the needs of diverse applicants; pretest these materials with diverse PIs at all career levels	• Develop resources and make available to program staff
4	Expand grantsmanship and grant writing workshops and similar assistance targeting diverse individuals at all institutions and all career stages; include opportunities for one-on-one interactions with NICHD program staff with scientific expertise well matched to participants	• Expand number of workshops • Target number of attendees from diverse backgrounds • Monitor total attendees • Track attendees by career stage • Report satisfaction data and feedback

Long-Term (3+ years)

	Activity	Measure(s)
1	Develop specific targeted NOFOs to support diverse applicants in all career stages, especially including the PI/researcher stage. Establish diversity focused K24, MERIT, and R01 programs to provide opportunities for experienced URM PIs and to support role models for URM scientists at earlier career stages	• Monitor number of new NOFOs
2	Incorporate potential effects on diversity into consideration of NICHD policies and practices related to: (1) policies that disproportionately affect one gender (2) rapid funding efforts, and (3) distribution of portfolio across research topics	• Monitor number of policies that are adapted • Track new policies created
3	Use data analysis and monitoring of T32s, K12s, and large programs to identify ways to improve diversity within these programs. Develop a formal process to consider incentives, additional review criteria, sunsetting, and other methods to further the diversity of trainees, scientists, and PIs within these programs	• Develop formal process

Goal 3: Stakeholder Engagement and Partnership Development

Goal Description

Engage internal and external stakeholders for insight to scientific community experiences, perspectives, and recommendations for diversification of trainees, grantees, and awardees at NICHD. Specifically, the activities were created to provide a platform for open and iterative dialogue on existing partnerships and programs, the challenges and successes of the current partnerships, and exploration of strategies to improve them and/or develop new innovative mechanisms for engagement. Emphasis was placed on the definition of engagement and partnership as well as consideration for customized approaches at various career stages.

Current Actions

	Activity	Measure(s)
1	Hold listening sessions focused on how NICHD can support the career development and trajectory of individuals who are underrepresented in the biomedical and public health research workforce; discuss issues and challenges facing institutions, researchers, and trainees in creating a diverse scientific workforce and enhancing inclusion in the research community	• Hold listening sessions and present to STRIVE SWD group and/or OHE **[Completed]** • Monitor number of participants **[Completed]**
2	Hold a workshop to bring together NICHD and external experts to highlight innovative systems-level models and strategies to develop and sustain a scientific workforce that embodies DEIA; participants will also discuss how these models and strategies can further inform efforts to increase DEIA in NICHD's research populations	• Hold workshop • Monitor number of participants • Draft a writeup once workshop is completed

Identified Gaps

Effective stakeholder engagement could help NICHD to further extramural workforce diversity. Stakeholder engagement should extend to individuals at all career levels and involve institutional leaders as well as researchers. Engagement is especially crucial to supporting the needs of diverse populations who are not currently represented in NIH demographic data, either because their populations are small or because they have been considered a subgroup. Specifically, stakeholder engagement efforts for individual AI/AN tribes, NHOPI, SGM, Asian subgroups, individuals with disadvantaged backgrounds, rural residents, and others need to be developed and implemented. To this end, NICHD recently engaged a contract partner to create a strategy for engagement that will include metrics and a comprehensive suite of tactics to increase our ability to broaden the groups with which we interact.

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Hold roundtable with NICHD Leadership and Senior Leaders of Organization	• Monitor individual stakeholders in attendance • Gather recommendations from attendees • Track partnerships developed
2	Leverage Mentoring activities	• Engage in National Research Mentoring Network and professional society meetings
3	Increase Communication Plan/ Web Presence	• Improve NICHD Office of Communication coordination and website development
4	Use data from NICHD funding over time and the distribution of that funding to PIs of varying racial and ethnic to inform policies, change practices, and track progress on ecosystem diversity enhancement	• Monitor the increase in the number of successful awardees across all career stages at NICHD within DEIA

Intermediate (1-2 years)

	Activity	Measure(s)
1	Hold interactive dialogue sessions with stakeholders with distinct outcomes and deliverables identified for each interaction; will need to determine frequency and duration	• Monitor individual stakeholders in attendance • Gather recommendations from attendees • Develop partnerships • Influence partnerships on success, career trajectory and expansion of the DEIA candidate ecosystem across all career stages in NICHD
2	Participate in the COSWD challenge and collaborate with the NIH Common Fund to provide additional support for the FIRST program and the COSWD DEIA supplement program; reach out directly to participants from these programs whose research is within in the NICHD mission and solicit feedback on NICHD DEIA efforts	• Monitor number of individuals contacted • Monitor number submitting feedback • Track number of participants • Submit solution • Change policies or program resulting from the event
3	Implement stakeholder outreach efforts to learn more about the needs of diverse populations who are not currently represented in NIH demographic data, either because their populations are small or because they have been considered a subgroup	• Develop protocols • Obtain information • Incorporate information into longer-term plans (see below)

	Activity	Measure(s)
4	Hold an NICHD Specific Diversity Supplement Workshop to support career growth and development for diversity supplement recipients	• Hold workshop • Monitor number of participants • Develop writeup once workshop is completed
5	Designate NICHD program officers and institute leaders as "ambassadors" for DEIA efforts to be targeted at specific scientific research areas where the data show limited diversity among investigators	• Track number of meetings held • Gather feedback from participants
6	OHE and Office of Legislation, Public Policy, and Ethics partner on NICHD's long term Stakeholder Engagement Strategy to better address the needs of diverse populations	• Establish contract with subject matter expert organization • Establish engagement strategy • Track number of organizations engaged with NICHD through specific metrics related to types and nature of engagements with the institute

Long-Term (3+ years)

	Activity	Measure(s)
1	Evaluate NICHD's long term Stakeholder Engagement Strategy to better address the needs of diverse populations	• Revise and publish strategy • Use evaluation outcomes for future actions items
2	Establish or participate in programs that provide prestigious, highly publicized formal awards for extramural scientists who are DEIA leaders	• Establish award • Monitor number of awardees

HDR

Goal 1: Promote Community Partnered Research to Understand Health Disparities

Goal Description

Community partnered research encompasses a range of methods that use bidirectional engagement with participants and guardians, patient advocacy groups, and community leaders and center the interests of a target community throughout the research process. For example, community-based participatory research (CBPR) is a type of community partnered research that involves collective, reflective, and systematic inquiry in which researchers and community stakeholders engage as equal partners in all steps of the research process with the goals of educating, improving practice, and/or bringing about social change. Community-partnered participatory research (CPPR) was developed by Healthy African American Families and Charles R. Drew Medical University with support from the Centers for Disease Control and Prevention. It was derived from CBPR to emphasize that authentic community-academic partnerships are distinct from traditional collaborative research activities. The community must be considered a partner and be engaged in all aspects of the research process. Healthy African American Families created mechanisms for community education and networks of community relationships that were sustainable through combined resources and expertise that served as a model for CPPR.

PIs must learn about and value the interests of community groups and their members and ensure that the community's goals are met, even as these may be very different from the goals of the research. PIs must also establish their own trustworthiness within the community and implement methods inclusive of community voices and their lived experiences. Approaching the community with a strengths-based and health-promoting attitude recognizes the knowledge and assets within a community. Health disparities research that does not engage with the community of interest from the outset and throughout the research project runs the risk of failure at multiple points and may worsen the disparities and damage community relationships, ask the wrong questions, recruit insufficient samples, misinterpret the data, and fail to implement successful interventions broadly. To date, much health disparities research has focused on identifying and describing health disparities with less investment in a solution-oriented research framework. It is more likely that interventions will be developed and tested when conducting community partnered research. Furthermore, community partnerships may lead to solutions that are more broadly accepted and implemented.

Current Actions

	Activity	Measure(s)
1	Host workshops and data challenge on Community Engaged Research	• Host workshop - Community Engagement Forum on Improving Maternal Health – April 2019 **[Completed]** • Host workshop - Decoding Maternal Morbidity Data Challenge – July 2021 **[Completed]** • Host workshop - Maternal Health Challenge – September 2022 **[Completed]**
2	Publish Funding Opportunity Announcements supporting community engaged research https://www.nichd.nih.gov/about/meetings/2019/040819	• Publish FOA RFA-HD-22-024: Community Engaged Research on Pregnancy Related and Associated Infections and Sepsis Morbidity and Mortality Community Engaged Research on Pregnancy Related and Associated Infections and Sepsis Morbidity and Mortality • Publish FOA RFA-HD-23-022: Learning Disabilities Research Centers
3	Establish Community Advisory Boards for Trials Networks	• Establish Adolescents Medicine Trials Network National Community Advisory Board, called Youth Experts and Advocates for Health, or ATN-YEAH

Identified Gaps

- Lack of funding opportunities to support and develop community partnerships
- Lack of review criteria specific to equitable community partnerships
- Lack of resources for enabling maintenance of changes and/or hand over of programs to community management (i.e., after the research project is complete)
- Lack of prioritization of intervention research addressing health disparities and grounded in the communities of interest

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Publish NOFOs or Notices of Special Interest (NOSIs) for developing partnerships such as the NIH supported Science Education Partnership Award	• Increase number NOFOs or NOSIs published, number of applications received, and number of awards issued • Increase NICHD outreach to improve workforce training, educational activities, and partnerships to sustain community engagement
2	Support the NIH Common Fund which has committed up to $58 million to fund transformative research to address health disparities and advance health equity. The NIH Community Partnerships to Advance Science for Society (ComPASS) initiative will be launched in 2023. ComPASS will listen to Underrepresented groups' community needs and then commit $23 million to $52 million per year for 10 years to fund health equity research hubs for scientific support and partnership	• Increase number of applications received and funded addressing health disparities research in NICHD populations

Intermediate (1-2 years)

	Activity	Measure(s)
1	Increase in the number of partnerships among health disparities researchers and non-traditional organizations such as science centers, media experts, barber shops, churches, and schools	• Increase number of engagement activities or formal agreements • Track formal agreements and future evaluation efforts • Increase number of meetings and activities hosted by NICHD that go beyond just academicians to include non-traditional partners and organizations and increase bidirectional engagement
2	Develop or fund training programs focused on best practices in Community Engaged Research	• Increase number of T32, K12, or R25 applications received and awarded with community engagement components

Long-Term (3+ years)

	Activity	Measure(s)
1	Create a culture of engagement in community partnerships to ensure long-term commitments	• Increase number of NOFOs that include community engagement as a reviewed component
2	Hire staff with community engagement expertise, train Program Officials (POs) on development of review criteria for NOFOs and Scientific Review Officials (SROs) for review, add Council members with this expertise	• Create resources or direct to existing resources for best practices for establishing and maintaining community engagement

Goal 2: Promote Inclusion of Populations Experiencing Health Disparities in All NICHD Human Subjects' Research

Goal Description

Over the last ten years, inclusion of populations experiencing health disparities in all NICHD research has been an urgent priority. It is critically necessary that NICHD's research reflect the changing demographics, and include populations who experience health disparities (e.g., racial and ethnic minorities, sexual and gender minorities, people and families living in poverty, rural residents, and people with disabilities). For example, currently over half the nation's children and adolescents are members of racial or ethnic minority groups and within ten years, they will be accessing reproductive health services. Research must extend beyond identifying additional risks borne by health disparities populations to examining the structures that create disparities, the strengths of the communities that bolster resilience, and patterns within groups, such as normative growth trajectories, differential disease course, or characteristics and responses to treatment, that can inform and bring greater equity to intervention and treatment efforts. DEIA approaches need to be incorporated into project development, review, funding, recruitment, and dissemination. Barriers to participation (e.g., socioeconomic, transportation, language, accessibility, etc.) must be understood and systematically reduced or eliminated throughout the lifecycle of the projects. Population-based approaches to research within disparities groups (e.g., samples designed to represent Hispanic adolescents in the U.S.) are needed to understand the heterogeneity within these groups, including influences of experiencing multiple marginalized identities.

Current Actions

	Activity	Measure(s)
1	Require inclusion of People with Lived-Experience (PWLE) in research projects; the definition of PWLE will vary based on the research project but may include individuals from the population experiencing the health disparity	• Monitor initiative compliance (inclusion explicit in funding announcements) and actual number of initiatives published including PWLE; Example: HD22-017 "Home and Community-Based Physical Activity Interventions to Improve the Health of Wheelchair Users" required the inclusion of wheelchair users and "Promoting Reproductive Health for Adolescents and Adults with Disabilities" required the inclusion of people with disabilities
2	Representative inclusion of Black and Hispanic subjects in NICHD supported research	• Monitor representativeness of NICHD's human subjects research inclusion data (planned and enrolled) and recommend action steps as needed; As of 2022, OSPRA portfolio analysis shows representative inclusion for AA and Hispanic subjects across NICHD
3	Develop and refine measures and methods that quantify diversity in its various forms	• Quantify number of research projects that develop, refine, or validate measures of diversity in one or more NICHD population (e.g., fetal growth calculator)
4	Enhance engagement with AI/AN communities	• Monitor number and type of engagement efforts and their corresponding outcomes. These efforts could include formal tribal consultations, engagement with tribal colleges and medical schools and development of policies and NOFOs that respect sovereignty of grantees from tribal communities (e.g., IMPROVE Tribal Consultation for Maternal Health Research Centers of Excellence)

Identified Gaps

- Insufficient subject recruitment to power disaggregated analysis by group (e.g., race or ethnicity)
- Lack of financial support to facilitate inclusion of diverse populations and to cover expenses necessary to support diversity recruitment and enrollment (e.g., provide transportation, accessible equipment, language, and interpretation services)
- Limited research on the heterogeneity within HD populations

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Require inclusion of PWLE in research in all health disparities research Requests for Applications (RFAs)	• Ensure >80% of new health disparities research RFAs include language and review criteria on PWLE in the research plan
2	Reduce barriers to participation and inclusion in research	• Publish best practices • Solicit supplements to increase health disparities population recruitment
3	Include health disparities and inclusion as part of the evaluation criteria for the Intramural Board of Scientific Counselor Intramural Site Visits	• Collect baseline data for health disparities, and inclusion data for intramural PIs who work with human subjects • Require health equity statement as part of submitted written material • Include as part of the evaluation criteria
4	Increase number of projects in Institutional Development Awards (IDeA) states	• Increase number of applications and awards received from IDeA states

Intermediate (1-2 years)

	Activity	Measure(s)
1	Address the needs of rural communities' health disparities populations of interest	• Publish NOFOs that target needs of rural communities like https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-22-002.html https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-22-002.html • OSPRA analyses showing number and type of studies conducted in/with rural communities

	Activity	Measure(s)
2	Host workshop on Ableism	• Work with Medical Rehabilitation Coordinating Committee to host workshop on understanding and combatting Ableism in medicine **[Completed]**
3	Create a repository for publicly available datasets that are Findable, Accessible, Interoperable, and Reusable (FAIR) resulting from health disparities research	• Track uses of publicly available datasets and highlight when it is 'done right' to exemplify those who did something valuable as a result of the accessibility of health disparities research datasets • Track return of datasets from secondary data or other analyses resulting from health disparities research to the NICHD Data and Specimen Hub (DASH) or comparable publicly accessible repository
4	Create and make available to researchers a toolkit for measures and methods appropriate to health disparities research to facilitate the use of common measures and methods across studies (e.g., stress, experience of racism, and biomarkers)	• Monitor number of downloaded Common Data Elements case report forms • Track the number and frequency of downloads, visits to the toolkits' website, etc. • Track number of citations/published manuscripts acknowledging the use of measures in HD toolkit
5	Create and enhance existing programs to fund students or ESIs to reproduce health disparities research results from published and shared data to confirm meaningful and useful sharing	• Monitor number of health disparities research publications citing secondary data use • Number of STEMM schools participating in program(s) • Monitor number of ESIs who participate in program(s) and go on to receive subsequent funding in health disparities research • Track the number of researchers across the career spectrum (e.g., students, early career researchers) and community members/citizen scientists utilizing and publishing health disparities research results from shared data through annual reporting (RPPR), publications and new applications, etc.

Long-Term (3+ years)

	Activity	Measure(s)
1	Improve data collection methods to better represent minoritized communities and refine race and ethnicity categories to understand equity and inform resource distribution	• Support data and research consortiums to go beyond what is required by the OMB guidelines
2	Reduce the number of participants with unknown race/ethnicity	• Ensure there is a 50% reduction in the Inclusion Record Reporting
3	Increase the number of Asian, American Indian, and Pacific Islander research participants in NICHD supported human subjects research	• Ensure there is a 25% increase in the Inclusion Record Reporting
4	Require translation of study documents into local languages to increase inclusion of participants speaking diverse languages.	• Ensure there is a 50% decrease in the number of NICHD funded studies limited to English speakers only • Ensure there is a 50% increase in the number of NICHD funded studies that include speakers of diverse languages other than English and Spanish

Goal 3: Incorporate Intersectionality of Identities into Health Disparities Research

Goal Description

Identity is an individual level construct that falls across multiple axes. Identity development is a lifelong, multi-dimensional process with dynamic interactions across one's social and lived experiences accumulated over time. The lifelong journey to develop one's social identity can lead individuals toward different pathways, some of which may contribute to health disparities. For example, experiencing adversities in early life may increase the likelihood that youth engage in risky behaviors that, in turn, increase the likelihood for poor health outcomes as adults. In addition, various identities such as ethnic, racial, gender, class, and ability, intersect to have differential impacts across development adding both richness and complexity to people's lifetime experiences. For example, people from underrepresented racial and ethnic groups may also have disabilities or SGM identities, which may broaden their perspectives and extend the communities within which they share lived experiences but may also exacerbate inequities and experiences of discrimination.

Historically, often when strides were made in equity for a group, those gains were not equally experienced by members of the group with intersecting identities. For example, the 19th Amendment to the US Constitution extended the right to vote to women, but women of color continued to face disenfranchisement due to race-based voting restriction laws. Thus, to

understand the true burden of health disparities, a more complete appreciation of how the intersection of individuals' identities operates within different communities to advantage or disadvantage individuals across development is required.

Current Actions

	Activity	Measure(s)
1	Educate NICHD staff on Intersectionality	• Educate NICHD staff: Deconstructing Bias – Intersectionality November 2021 Newsletter [Completed]
2	Host workshop on Social Identity and Intersectionality	• Host workshop on How Social Identity Can Impact and Promote Health: A Look Across Populations, Lifespans, and Generations – August 2021 [Completed]

Identified Gaps

- OMB forms do not reflect current identity of research subjects
- Disability status of research subjects is not routinely collected

Proposed Future Actions

Immediate (6 months)

	Activity	Measure(s)
1	Improve terminology to reduce othering in NICHD publications and websites; develop new assessment tools and measures specific to various identities and developmental periods across diverse groups	• Incorporate and promote targeted non-stigmatizing terminology to understand and conceptualize racism, ableism, and oppression • Develop new/revised and application of existing quantitative and qualitative research methods to capture high quality intersectionality data in NICHD funded studies
2	Encourage disaggregation of data on intersectional identities	• Test and modify measures to improve sensitivity, reliability, and validity through NICHD extramural and intramural research funding • Increase the number of NICHD supported publications that analyze data from subjects by ethnicity, race, and/or intersecting identities

	Activity	Measure(s)
3	Refine existing tools and measures to be more culturally sensitive and that include: • racial nuances • disability status • language(s) • counter narratives • developmental periods • urban vs rural differences in same racial/ethnic groups • level of traditionalism vs acculturation (e.g., Native Americans, Latinos, immigrants) • poverty/affluence • SGM identity	• Test and modify measures to improve sensitivity through NICHD extramural and intramural research funding • Increase number of NICHD supported publications that analyze data from subjects by ethnicity, race, and/or intersecting identities • Publish culturally sensitive translations of existing measures into additional languages and evaluation of the in-field performance of these materials

Intermediate (1-2 years)

	Activity	Measure(s)
1	Facilitate the development and refinement of metrics that capture the multiplicity of identifies experienced by individuals over specific time periods	• Publish NOSI to develop metrics on the intersecting systems of identity over time and how they operate to advantage or disadvantage individuals' developmental, psychosocial, and health outcomes
2	Develop new assessment tools and measures specific to various identities and developmental periods across diverse groups; improve terminology to reduce othering	• Incorporate and promote the use of targeted non-stigmatizing terminology to understand and conceptualize racism and oppression • Develop, validate, and publish measures for experiences with multiple intersecting identifies across developmental periods through NICHD's extramural and intramural research investments • Develop a new application of quantitative and qualitative research methods to capture high quality intersectionality data in NICHD funded studies

Long-Term (3+ years)

	Activity	Measure(s)
1	Support research examining multigenerational models of poverty, systemic racism, and ableism to understand the profound health effects of history	• Collect and publish data on multigenerational exchange patterns of poverty, systemic racism, and ableism over the life course • Develop and validate measures of historical/structural racism

Appendix

2022's Meetings, Workshops & Events

STRIVE-Wide:
- STRIVE-Wide Retreat (9/23/2022)
    - STRIVE-Wide Retreat Agenda
    - NICHD STRIVE-Wide Retreat: Collective Committee Feedback & Debrief
- Bi-weekly/monthly Committee Meetings and bi-weekly Committee Co-Chair Meetings to collaborate on DEIA strategy and initiatives
    - DEIA Committee Meeting Notes
    - SWD Committee Meeting Notes
    - HDR Committee Meeting Notes
- STRIVE Action Plan Roadmap
- STRIVE-Wide Conference and Event Tracker

DEIA
- DEIA Training Curriculum
    - Hosted Training events for COSWOD tool
    - Developed IC level curriculum to implement evidence-based trainings
- NIH DEIA Data Call (2/2022 and 8/2022 - 11/2022)
- Pulse Survey

SWD
- Brown Bag Information Sessions
    - Overview of NICHD targeted programs by program staff leading specific grant mechanisms was done in the form of a brown bag series. Presentations were done for the intramural training program, F, K, and diversity supplements. Each presentation focused on standard questions for each program.
- Hosted Enhancing Scientific Diversity Virtual Workshop (5/18/22)
    - The workshop brought together members of the scientific community to discuss strategies for fostering DEIA among grantees and trainees, and in the broader scientific workforce.
- SWD Listening Sessions (3/22/2022 and 3/24/2022)
    - Sessions focused on better understanding perspectives on scientific workforce diversity from four audiences: trainees, ESIs, established PIs/PDs, and academic leaders and professional organizations.
- Action Plan Retreat
    - SWD committee convened half day session to outline goals and metrics for their action plan.

- Review of Literature & Environmental Scan
  - During the period of April 2021 to December 2021 approximately, the consultant compiled a list of programs and articles across the U.S that targeted underrepresented minorities and women.

HDR
- STRIVE for Change: Drawing on Our Strengths Challenge
  - Created, planned, and hosted Art Challenge (launched 9/15/2022) to raise awareness about health disparities, encourage creative thinking on how we achieve health equity, and provide opportunity for youth to highlight health promoting aspects of their community
- IDEASCALE Campaign
- Journal Publication (11/2021 – Present)
  - Series of 5 workshops in 2021 to inform direction of NICHD health disparities research
    - Workshop 1 – STRIVE for Change: Establishing A New Frontier in Health Disparities Research Across the Lifecourse
    - Workshop 2 – How Social Identity Can Impact and Promote Health: A Look Across Populations, Lifespans, and Generations
    - Workshop 3 – Societal Influences on Health and Health Disparities During Childhood
    - Workshop 4 – Community-Engaged Research Strategies to Mitigate Health Disparities in NICHD Populations
    - Workshop 5 – STRIVE for Change: Weaving Translation and Implementation Science into the Fabric of Health Disparities Research