Department of Health and Human Services

National Institutes of Health

National Institute of Nursing Research

Minutes of the National Advisory Council for Nursing Research

May 18, 2021

The 104th meeting of the National Advisory Council for Nursing Research (NACNR) was convened on Tuesday, May 18, 2021, at 10:30 a.m. The entire meeting was held by National Institutes of Health (NIH) videocast, and all observers, including members of the public, attended virtually. The open session adjourned at 3:00 p.m. The closed session of the meeting, which included consideration of grant applications, was convened on Tuesday, May 18, 2021, at 3:30 p.m. and continued until adjournment at 4:15 p.m. Dr. Shannon Zenk, Chair, NACNR, presided over both meeting sessions.

OPEN SESSION

I. **CALL TO ORDER AND OPENING REMARKS**—Dr. Shannon Zenk, Director, National Institute of Nursing Research (NINR)

Dr. Zenk called the 104th meeting of the NACNR to order and welcomed all Council members, visitors, and staff. She acknowledged retiring Council members, Drs. Yvette Conley, Audwin Fletcher, Eun-Ok Im, Shirley Moore, and JoEllen Wilbur, for their service and contributions to the Institute.

II. **COUNCIL PROCEDURES AND RELATED MATTERS**—Dr. Susan E. Old, Acting Executive Secretary, NACNR

Dr. Old noted that the open session of the meeting was being videocast live and will be archived on the NIH videocast website.

Conflict of Interest and Confidentiality Statement

Dr. Old referred to the conflict of interest and confidentiality statements provided in the Council materials and indicated that specific instructions would be provided at the beginning of the closed session in the afternoon.

Minutes of the Previous NACNR Meeting

Council members received the minutes of the January 26, 2021, NACNR meeting by email. A motion to accept these minutes was made, seconded, and approved unanimously. The approved minutes of each NACNR meeting become part of the Institute's official record and are posted on the NINR website (www.ninr.nih.gov).

Dates of Future Council Meetings

Dates for future Council meetings were included in the electronic Council book. The next Council meeting (September 14, 2021) will be virtual.

III. REPORT OF THE DIRECTOR, NINR— Dr. Shannon Zenk, Director, NINR

The Director's report focused on activities and news from NIH and NINR since the January 2021 Council meeting. Highlights of Dr. Zenk's report included:

NIH News—A diverse scientific workforce improves the quality of research, increases the likelihood that health disparity populations participate in and benefit from research, and contributes to robust learning environments. The NIH commitment to ending structural racism in biomedical research is evidenced by new efforts to support diversity, equity, and inclusion as well as identifying and dismantling policies and practices that may harm the NIH workforce and NIH science. These efforts include a Common Fund program co-chaired by Dr. Zenk that recently released two RFAs: Transformative Research to Address Health Disparities and Advance Health Equity and Transformative Research to Address Health Disparities and Advance Health Equity at Minority Serving Institutions (MSIs). They also include a National Institute on Minority Health and Health Disparities (NIMHD)-led RFA that NINR is supporting: Understanding and Addressing the Impact of Structural Racism and Discrimination on Minority Health and Health Disparities.

The Helping to End Addiction Long-term[SM] (HEAL) Initiative is gathering input from diverse stakeholders for future directions and data sharing. The comment period for the Moving HEAL Research into Action idea exchange ends June 1, 2021.

The Support for Research Excellence (SuRE) Program supports efforts to build research capacity at institutions that enroll significant numbers of students from backgrounds nationally underrepresented in biomedical research. The Program seeks to develop and sustain research excellence of faculty investigators and provide students with research opportunities while catalyzing institutional research culture and enriching the research environment.

Budget—The Fiscal Year (FY) 2021 budget increased NIH funding by 3 percent, and NINR's budget increased by 3.3 percent (which included an increase in our AIDS funding) to just under $175 million. The President's FY 2022 budget requests $51 billion for NIH, including $6.5 billion to launch the Advanced Research Projects Agency for Health (ARPA-H), which initially will focus on cancer, diabetes, and Alzheimer's disease. Dr. Zenk noted that Congress determines final appropriation levels.

NINR Pathways Report—Dr. Zenk provided an update on progress in response to Pathways Report recommendations. Short-term responses include NINR implementation of an NIH program to provide childcare costs for fellows; advertising the NIH Early Career Reviewer Program to K awardees and applicants; promoting the Diversity Supplement program; and conducting outreach to trainees at all levels. Intermediate-term follow-up plans include co-hosting a K awardee meeting in FY 2022. NINR is exploring participation in the National Institute on Minority Health and Health Disparities (NIMHD) Clinical Research Education and Career Development (CRECD) R25 Program; collaborating with other Institutes and Centers' (ICs') T32 programs for nurse scientist training; and seeking ways to feature nurse-scientist trainees and role models on the NINR website, social media, and other communication channels. For long-term follow-up, NINR is planning a technical assistance webinar for prospective T32 applicants in 2021. The Institute also plans to enhance mentor training activities in 2022 and adapt lessons learned from the National Research Mentor Network. In

addition, the Institute is exploring an intensive methods research training program specifically aimed at enhancing diversity in the research workforce.

NINR COVID-19 Project Updates—NINR is funding a project—Intensifying Community Referrals for Health: The SINCERE Intervention to Address COVID-19 Health Disparities—under Social, Behavioral, and Economic Health Impacts of COVID-19 (SBE COVID). In addition, NINR is funding three Rapid Acceleration of Diagnostics[SM] projects: "Reaching Communities through the Design of Information Visualizations Toolbox for Return of COVID-19 Results," "Alive Church Network: Increasing COVID-19 Testing in Chicago's African American Testing Deserts" (RADx[SM] Underserved Populations [RADx-UP]), and "Multi-modal Wireless COVID Monitoring & Infection Alerts for Concentrated Populations" (RADxSM Radical [RADx-rad]). Details about additional COVID-19 funding opportunities are available at https://grants.nih.gov/grants/guide/COVID-Related.cfm.

Funding Opportunities—NINR is participating in a number of initiatives focused on promoting diversity in the nursing science workforce and supporting early-stage investigators (e.g., Stephen I. Katz Early Stage Investigator Research Project Grant). Details are available on the NINR and NIH websites.

NINR Prevention Research—Dr. Zenk shared highlights from the NIH Office of Disease Prevention in-depth analysis of prevention research supported by NIH. For the period FY 2012 through FY 2019, prevention projects accounted for 37 percent of NINR's portfolio (more than double the proportion of prevention projects in the overall NIH portfolio). More than half of NINR prevention projects included a randomized intervention (51%), 81 percent addressed primary prevention, and 25 percent included healthcare delivery as an exposure. Dr. Zenk noted that some prevention intervention targets that can have a wide population impact—namely, policy/built environment and stress—have not received as much attention at NINR or NIH.

Maternal Morbidity/Mortality: IMPROVE Initiative—Dr. Zenk reminded attendees of a January 2021 NACNR presentation on "Implementing a Maternal health and Pregnancy Outcomes Vision for Everyone," an Initiative led by NICHD and the Office of Research on Women's Health (ORWH) that aims to reduce preventable causes of maternal

deaths and improve health of women before, during, and after delivery. In FY 2020, NINR co-funded a supplement on maternal stress, functional immune profiles, and maternal morbidity in black women.

NINR Awards under HEAL[SM] Initiative—Dr. Zenk highlighted the following NINR-administered awards: "Pain Response Evaluation of a Combined Intervention to Cope Effectively" (Wake Forest University), "Severe Pain During Wound Care Procedures: Model and Mechanisms" (University of Iowa), "Mechanisms of Music Therapy to Palliate Pain in Patients with Advanced Cancer (Drexel University), and "Using Virtual Reality Psychological Therapy to Develop a Non-opioid Chronic Pain Therapy" (Cognifisense, Inc.).

NINR Director's Lectures—Videos of recent lectures archived on the NINR YouTube channel include Dr. Sarah Szanton's presentation leveraging strengths to achieve health equity with a focus on health disparities of older adults, and Dr. Ryan Shaw's presentation on the role of digital health in healthcare delivery and chronic disease management.

NINR Staff News—Dr. Zenk outlined her recent activities, including presentations at schools of nursing and medicine, societies, and other organizations as well as three meetings with members of Congress and a meeting with staff from the House and Senate Appropriations subcommittee responsible for NIH. She recognized Dr. Leorey N. Saligan, a senior investigator in NINR's Division of Intramural Research who recently obtained tenure, announced the upcoming retirement of NINR Clinical Director Sue Wingate, and welcomed new NINR staff who are making critical contributions to the work of the Institute. NINR is seeking candidates for three key leadership positions: Director, Division of Extramural Science Programs; Clinical Director, Division of Intramural Research; and Scientific Director, Division of Intramural Research. Details are available at https://www.ninr.nih.gov/aboutninr/organizationinformation/ninrjobopportunities.

IV. **UNITE—Dr. Marie Bernard, UNITE Co-Chair; Acting NIH Chief Officer for Scientific** Workforce Diversity; Deputy Director, National Institute on Aging (NIA)

Dr. Bernard presented an overview of the NIH UNITE Initiative, current efforts, and next steps. Events of the past year made clear the ongoing reality of racial injustice in our country and a joint responsibility to address this issue. A series of NIH leadership meetings and information exchanges with affinity groups at NIH (8CRE and African American/black [AA/B] Scientists) led to and informed a shared commitment to address structural racism at this pivotal moment. Biomedical research, and the administrative system that supports it, must be devoid of hostility grounded in race, sex, and other federally protected characteristics. Initiative participants are committed to delineating elements that may perpetuate structural racism in biomedical research within NIH and the extramural community and lead to a lack of personnel inclusiveness, equity, and diversity. All ideas must receive equal and fair review, without regard to current dogma, precedents, and who presents the idea. As COVID-19 has made clear, health disparities and inequities continue to contribute to morbidity and mortality in the Nation, making it essential to redress their fundamental causes and identify research programs to identify effective interventions.

UNITE comprises five committees with separate, coordinated objectives to tackle racism and discrimination in science and develop methods to promote diversity and inclusion across the biomedical enterprise. Committee descriptions, purpose, and current activities are available on the UNITE web page.

A comparison of R01 applicant counts and funding rates by race/ethnicity for FY 2013 and FY 2020 showed a continuous trend of improving numbers for every group, although the numbers are small. For example, applications from AA/B applicants increased from 425 to 703, and funding rates for AA/B applicants increased from 12.2 percent to 23.6 percent.

The following actions have been taken since the launch of the UNITE Initiative. A Request for Information (RFI) garnered more than 1,000 responses. Up to $24 million from the NIH Common Fund has been committed to “Transformative Research to Address Health Disparities and Advance Health Equity.” Twenty-five Institutes, Offices,

and Centers (IOCs) have committed up to $30.8 million for “Understanding and Addressing the Impact of Structural Racism and Discrimination on Minority Health and Health Disparities.” The National Institute of General Medical Sciences (NIGMS) released a Notice of Special Interest (NOSI): “Understanding and Addressing the Impact of Structural Racism and Discrimination on Biomedical Career Progression and the Biomedical Research Enterprise.” The Brain Research Through Advancing Innovative Neurotechnologies® (BRAIN) Initiative issued the first NIH Funding Opportunity Announcement (FOA) using “Plan to Enhance Diverse Perspectives” as a consideration for scoring. Tables showing the Number of Principal Investigators Funded by the NIH by Grant Mechanism and Gender, Race, and Ethnicity, Fiscal Years 2016–2020 were released for the first time. The Anti-Racism Steering Committee (ARSC) was established to redress issues regarding policies and procedures that lead to wrongs; open to all members of the NIH workforce, ARSC membership exceeds 460.

Discussion:

Dr. Lowe facilitated discussion on topics related to Dr. Bernard’s presentation. Dr. Bernard described efforts to identify NIH policies and practices that serve as barriers for MSI participation in training programs and noted that outreach will not be targeting particular populations but will be aimed at bringing a diversity of scientists. Scientific review officers and review panel chairs will play an important role in ensuring effectiveness of the “plan to enhance diverse perspectives” scoring criteria. UNITE will report accomplishments to the Advisory Committee to the Director every June and December. UNITE will be looking at NIH diversity initiatives (currently 67) to identify best practices and lessons learned. Dr. Lowe encouraged Council members and other attendees to look at the Scientific Workforce Diversity website.

V. **Diversity, Equity, and Inclusion**—Dr. Sheldon Fields, Associate Dean for Equity and Inclusion and Research Professor, Penn State School of Nursing; Dr. Nicole Redmond, Program Officer, National Heart, Lung, and Blood Institute (NHLBI)

Dr. Zenk summarized NINR inclusion data for extramural clinical research (2016–2018) by sex, race, and ethnicity. Research participants were primarily female. African

Americans comprised 17–22 percent of enrollees, which is representative of the U.S. population; however, American Indians/Alaska Natives and Latinos/Hispanics remain underrepresented relative to the U.S. population and burden of health disparities.

Dr. Fields presented "Diversity, Equity, and Inclusion Toward Conducting Antiracist Nursing Research." Racism exists and persists in the United States. African Americans and other minorities experience poorer health outcomes than Whites; for example, they are more likely to die at early ages from all causes and have higher maternal mortality rates, higher breast cancer incidence and mortality, disproportionate numbers of new HIV cases, and higher infection and death rates from COVID-19. Past medical atrocities have led to medical mistrust that must be addressed before antiracist research is conducted.

Nursing is an important part of the healthcare system that has an impact on health disparities and is in a unique position to put forth an antiracist research agenda. The National Academy of Medicine's report, *The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity*, explores how nurses can work to reduce health disparities and promote equity while maintaining patient- and family-focused care. To be part of the solution, NINR should diversify its leadership; prioritize inclusive antiracist research; consider using Critical Race Theory as a framework for research projects; infuse diversity, equity, and inclusion and social health justice principles into the nursing practicum at all levels; and establish nursing research postdoctoral fellowships with antiracist, restorative justice objectives focused on health disparities.

Dr. Redmond presented "Optimizing Inclusion: Challenges in Policy and Practice." She provided an overview of NIH inclusion policies and challenges to implementation. Justice is an important ethical principle for human subjects research and underscores the importance of including the people who are affected by the condition of interest. NIH policies and inclusion guidelines for clinical research cover women and minorities (NIH Revitalization Act of 1993) and individuals across the lifespan, especially children and older adults (65 years and older) effective January 25, 2019.

Challenges to implementation of inclusion policy include the overlap of biologic and social constructs, and the complexity of race, ethnicity, and ancestry in genomic and

genetic research. Implications of inadequate inclusion are significant; for example, race is a potential proxy for social determinants of health. Many of the available genomic data are based predominantly on European ancestry, which leaves a large amount of worldwide genotypic and phenotypic variation undercharacterized. This is important because the frequency and effect sizes of genetic variants associated with disease risk may vary across populations.

This level of complexity must be considered when evaluating inclusion guidelines. Inclusion needs to be considered in the context of study question significance and constructs of interest, eligibility and exclusion criteria, study operations (e.g., recruitment and retention strategies, personnel), inclusion enrollment reporting, and application review assessment of compliance with inclusion policy. Post-award monitoring includes milestone accrual plans, quarterly accrual monitoring, and research performance progress reports.

Discussion:

Council members pointed to the challenge of ensuring representation of Hispanic populations for whom English is not their first language and the need for budgetary support and other resources for inclusion of non-English-speaking subjects in studies. Issues of trust, engagement, and acceptance in the context of clinical trials and vaccines have come to the forefront during the pandemic. Council members discussed how to leverage diversity/equity/inclusion positions within schools of nursing.

VI. Future Directions in Nursing Science: Report from the NACNR Strategic Plan Working Group—Dr. Yvette Conley, Professor and Vice Chair for Research, University of Pittsburgh School of Nursing, and NACNR Member; Dr. John Grason, Chief, Office of Science Policy and Legislation (OSPL), NINR; and the Strategic Plan Working Group

Dr. Grason outlined key principles for the strategic planning process: think boldly; consider the end at the beginning (plan for translation); demonstrate impact; embrace change and opportunity; and mentor the next generation. The Working Group aimed to broadly state strategic direction, articulate measurable objectives (steps that NINR can take toward achieving the goal), and explore strategies required to support the

objectives. Next steps include obtaining feedback from the NACNR, synthesizing feedback from multiple inputs, developing a draft framework for the plan and releasing it for public comment through an RFI; and publishing and disseminating the new plan in early 2022.

Dr. Conley outlined the strategic plan framework goals.

- Goal 1: Focus on dismantling structures that perpetuate racism and impede health equity. Strategies include cultivating trust, increasing diversity, ensuring equity, and promoting practical methodology.
- Goal 2: Use nursing science's multilevel perspective to develop and implement interventions to address the social determinants of health across the lifespan. Strategies include fostering community-based participatory partnerships and strengthening innovative methods.
- Goal 3: Use nursing science's holistic approaches to advance precision health and healthcare across the lifespan. Strategies include promoting transdisciplinary team science, cultivating key partnerships, and advancing translation and implementation.

Discussion:

Council members discussed how nursing science is uniquely positioned to contribute to the first two goals and recommended making this more explicit in the strategic plan as well as the need for diverse community representation on review panels.

VII. **Advanced Visualization Laboratory at NINR—**Dr. Patricia Brennan, Director, National Library of Medicine and Adjunct Investigator, NINR; Dr. James Holdnack, Staff Scientist and AVB Lab Manager, NINR

Dr. Brennan provided an overview of the newly formed NINR Advanced Visualization Branch (AVB) and its focus on real-life self-care management—the care between the care. The AVB also evaluates the usefulness of immersive virtual reality (IVR) technology as a nursing research platform; builds real-world environments to unobtrusively study factors affecting self-care behaviors and instrumental activities of daily living (IADL); and uses IVR environments as an investigational platform. The AVB

aims to become a demonstration site for exploring what can be understood *in vitro* and what must be understood *in vivo* and the balance between them.

Dr. Holdnack described current AVB work, lessons learned, and future plans. Virtual environments enable evaluation of self-management and self-care behaviors such as dietary and medication compliance and the impact of cognitive fatigue, emotional factors, and individual differences. For example, the AVB has built a virtual kitchen environment where people sort pills into a pill box and a virtual grocery store for studying cognitive fatigue in a complex environment. The AVB will use *All of Us* data in future home medication management studies and is seeking collaborations with other Institutes that have expressed interest in the virtual shopping environment.

Discussion:

Dr. Lewin facilitated discussion. Council members inquired about portability of equipment for potential use in the home, safety concerns, development costs, and other issues.

Adjournment

Dr. Zenk thanked meeting attendees and adjourned the open session of the meeting at 3:00 p.m.

VIII. CLOSED SESSION

This portion of the meeting was closed to the public in accordance with the determination that this session concerned matters exempt from mandatory disclosure under Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S. Code, and Section 10(d) of the Federal Advisory Committee Act, as amended (5, USC Appendix 2). Members absented themselves from the meeting during discussion of and voting on applications from their own institutions or other applications in which there was a potential conflict of interest, real or apparent. Members were asked to sign a statement to this effect.

Review of Applications

NACNR members considered 127 research and training grant applications on which NINR was the primary Institute; these applications requested a total of $32,034,296 (direct costs year 01). The Council also considered 100 applications on which another Institute/Center was primary and NINR was secondary. These applications requested a total of $70,793,030 (direct costs year 01). The Council concurred with the Institutional Review Group recommendations on these 227 applications.

ADJOURNMENT

The 104th meeting of the NACNR was adjourned at 2:30 p.m. on Tuesday, May 18, 2021.

CERTIFICATION

I hereby certify that the foregoing minutes are accurate and complete.

Shannon N. Zenk -S
Digitally signed by Shannon N. Zenk -S
Date: 2021.11.09 19:01:03 -06'00'

Shannon N. Zenk, PhD, MPH, RN, FAAN
Chair
National Advisory Council for Nursing Research

Susan E. Old -S
Digitally signed by Susan E. Old -S
Date: 2021.11.08 16:20:45 -05'00'

Susan E. Old, PhD
Acting Executive Secretary
National Advisory Council for Nursing Research

COUNCIL MEMBERS PRESENT

Dr. Shannon N. Zenk, Council Chair
Dr. Susan E. Old, Acting Executive Secretary
Dr. Yvette Conley
Dr. Audwin Fletcher
Dr. Grayson Holmbeck
Dr. Eun-Ok Im
Dr. Mallory Johnson
Dr. Christopher Lee
Dr. Peter A. Lewin
Dr. John Lowe
Dr. Nilda (Nena) Peragallo Montano
Dr. Ida M. Moore
Dr. Shirley M. Moore
Dr. Cindy Munro
Dr. Elias Provencio-Vasquez
Dr. Sheila Sullivan, *Ex Officio*
Dr. JoEllen Wilbur
Dr. Joanne Wolfe

The entire meeting was held by NIH videocast, and all observers, including members of the public, attended virtually.