DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES

Good morning, Chair Murray, Ranking Member Blunt, and distinguished Members of the Subcommittee. I am

ARPA-H projects would be bounded in time, typically a few years with longer periods allowed for efforts that are highly complex, and with the understanding that a significant fraction of projects will not reach their goals, a necessary outcome when conducting ambitious, innovative research. To determine which bold questions should be undertaken and to evaluate proposed programs and projects, ARPA-H would adopt approaches similar to those utilized by DARPA, such as the "Heilmeier Catechism,"[2] a set of principles that assesses the challenge, approach, relevance, risk, duration, and metrics of success. It will be critical for ARPA-H to engage with the broader biomedical community, including patients and their caregivers, researchers, industry, community groups, and others, to understand the full range of problems and the practical considerations that need to be addressed for all groups and populations.

Cancer Moonshot

The President's Cancer Moonshot[SM3] aims to accelerate progress in cancer research and make additional therapies available to more patients. Established in 2016, the Beau Biden Cancer Moonshot was a bold action on behalf of cancer patients. The President's Budget includes $216 million to the National Cancer Institute for Cancer Moonshot.

Prominent, ongoing Moonshot priorities include immunotherapy, childhood cancer, cancer prevention and early detection, and cancer implementation science. For example, several Moonshot initiatives focus on rare pediatric cancers, including research on the fusion of genes that yield novel "fusion oncoproteins" that drive some childhood cancers. Additionally, federal agencies, led by NIH, will develop a focused program to expeditious7 -2.3 Td1 (e)v2ef(t)-2 (i6(i)-2 ()-1 ( )-10 (8

implementation science strives to maximize the use of proven cancer prevention and early detection strategies and to incorporate them into standards of care, which is an urgent need among underserved, rural, and minority populations.

Health Disparities

A key area where NIH hopes to build upon investments made by this committee in FY 2022 is in the agency-wide effort to reduce health disparities. In the wake of a pandemic that disproportionately affected communities of color, this year's President's Budget will enlist most of our Institutes and Centers (ICs) in developing and testing interventions to reduce health disparities that have been appropriately tailored to the breadth of clinical and community services found in diverse settings and contexts.

Importantly, the health disparities research agenda will be aided and informed by the NIH UNITE Initiative,[4] composed of actively engaged representatives from across all 27 NIH ICs and the Office of the Director. This initiative was launched with the goal of identifying and addressing structural racism within the NIH-supported and the greater biomedical research community through development and implementation of new policies, procedures, and practices. To gain a better understanding of stakeholders' concerns, NIH issued a public Request for Information in March 2021, which captured over 1,100 responses from researchers, external partners, and members of the public. Responses will inform efforts to improve the culture and advance structural change in biomedical research.

NIH has recently launched several more initiatives to improve the health of racial and ethnic minorities and other populations who experience health disparities. One of the funding opportunities will commit $60 million over the next five years to support transformative research

[4] https://www.nih.gov/ending-structural-racism/unite

rapidly reduce suicidal thoughts and behaviors in adults and adolescents. [8,9]

In response to the pandemic, which exacerbated mental illness throughout the country, NIH launched a project to support research focused on the social, behavioral, and economic impacts of COVID-19, which supports research on the secondary effects of the pandemic, such as financial hardship, reduced access to health care, and school closures. [10] The FY 2023 President's Budget requests $2.2 billion for the National Institute of Mental Health (NIMH), that includes targeted increases of $25 million to expand research on the impact of the COVID-19 pandemic on mental health, $5 million to undertake studies of the impact of social media on mental health, and $5 million to inform mental health treatment approaches, service delivery, and system transformation in support of the Administration's mental health initiatives.

Maternal Morbidity and Mortality

Even during a global pandemic, NIH has continued to focus on other long-standing yet urgent public health needs. The Centers for Disease Control and Prevention estimates 700 women die each year in the United States of pregnancy-related deaths, 60 percent of which are preventable, and over 50,000 experience severe pregnancy-related morbidity each year.

To address this alarming trend, NIH established the Maternal Morbidity and Mortality Task Force,[11] an NIH-wide collaboration. The Task Force coordinates the Implementing a Maternal health and Pregnancy Outcomes Vision for Everyone (IMPROVE) Initiative[12], which invests in studies to promote an integrated understanding of biological, behavioral, sociocultural, and structural factors that contribute to maternal morbidity and mortality and engages

[8] https://www.fda.gov/news-events/press-announcements/fda-aceom i-4n..e24 Tdn12 (c)4.2 (e)-7/(ts41e)-2.8 (s)-9.6 (s8T

communities in the development of solutions to address the needs of pregnant and postpartum individuals. IMPROVE plans to launch a national network of

nutritional status could help address and prevent diet-related health disparities and promote health equity.

This kind of population and system science will be an important complement to the Nutrition for Precision Health program[21] (awarded in January 2022 to recruit 10,000 diverse participants to study how a person's nutritional status, metabolism, microbiome, genetics, and environment affect health) and the $50 million Artificial Intelligence for Chronic Disease initiative (first funded in FY 2021, the initiative leverages machine learning and data science tools to untangle the complex underlying causes of chronic diseases and look for early treatments).

NIH Buildings and Facilities

NIH strives to ensure that its facilities are safe and enable scientists to discover new diagnostics, therapies, and cures. As part of this effort, the President's Budget proposes $300 million for NIH's Buildings and Facilities appropriation. These funds are meant to begin addressing the backlog of life and safety repairs that totaled over $1 billion in the 2019 report by the National Academies of Science, Engineering and Medicine on the condition of NIH's facilities on the Bethesda Campus. A key aspect of NIH's strategy is to sustain the condition of existing facilities to prevent premature deterioration and the curtailment of research, including the physical plant, building structures, utility systems, roads, and grounds at all NIH sites. These projects will help to ensure the continued efficient and effective performance of NIH's real property assets to meet ongoing and projected research requirements and to offset the deterioration and obsolescence caused by age and use.

The President's Budget request also proposes a modification to the language governing

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repairs, which is intended to move NIH's property stewardship beyond maintenance and repairs to more proactive efforts like the modernization at NIH's research hospital, replacement of obsolete, temporary, and fragmented research facilities, improvement of facilities that advance computational and data science, and improvement of the energy and water efficiency of buildings. To achieve this will take time, so NIH looks to leverage prioritization processes currently in place to focus on the projects that are of the most need to our organization.

Conclusion

A healthier nation is a more productive nation and a vibrant research community is a pillar of an economically sound nation. With your support, NIH looks forward in FY 2023 to continue the tradition of catalyzing major break throughs over decades, bettering the human condition through rigorous and innovative science. My colleagues and I look forward to answering your questions.