U.S. Department of Health and Human Services
National Institutes of Health
Office of AIDS Research

Office of AIDS Research Advisory Council
61st Meeting
October 27, 2022

Virtual
https://videocast.nih.gov/watch=46009

Meeting Minutes

Council Members Present: Dr. Blanton S. Tolbert (Chair), Dr. Tabia K. Henry Akintobi, Dr. Margaret L. Brandeau, Dr. Kathleen L. Collins, Dr. Heidi M. Crane, Dr. Shruti H. Mehta, Dr. Veronica Miller, Dr. Jonah B. Sacha, Dr. John W. Sleasman, Dr. Ivy E. Turnbull

***Ad Hoc* Members Present:** Ms. Abigail Echo-Hawk, Dr. Omar Galárraga, Dr. Travis A. Gayles, Dr. Mojgan H. Naghavi, Dr. Anne M. Neilan

***Ex Officio* Members Present:** COL Julie A. Ake, CAPT Deron Burton (representing RADM Jonathan Mermin), Dr. Victoria J. Davey, Dr. Sarah Read (representing Dr. Carl Dieffenbach)

Advisory Council Representatives Present: Dr. Francis Ali-Osman, Dr. Monica Gandhi, Dr. Marguerita Lightfoot

Office of AIDS Research Leadership Present: Dr. Maureen M. Goodenow, Director, Office of AIDS Research (OAR); RDML Timothy Holtz, Deputy Director, OAR; CAPT Mary T. Glenshaw, OAR Advisory Council (OARAC) Designated Federal Official and Supervisory Senior Science Advisor; Dr. Lis Caler, Senior Science Advisor

Invited Speakers and Guests Present: Ms. Melanie Bacon, Dr. Peter Kilmarx, Ambassador John Nkengasong, Dr. Alice Pau

Welcome and Introductions

Blanton S. Tolbert, Ph.D., OARAC Chair and Professor, Case Western Reserve University
CAPT Mary Glenshaw, Ph.D., M.P.H., OAR, National Institutes of Health

Dr. Blanton S. Tolbert welcomed participants to the 61st meeting of the National Institutes of Health (NIH) OARAC. A quorum was present. Meeting materials provided to Council members included the agenda, a conflict-of-interest form, and minutes from the 60th OARAC meeting, held on June 23, 2022.

A motion to accept the minutes of the 60th OARAC meeting was approved unanimously.

Dr. Tolbert reviewed the 61st meeting agenda, noting time for public comments.

Report from the OAR Director

Maureen M. Goodenow, Ph.D., OAR, NIH

Dr. Goodenow welcomed attendees, particularly new *ad hoc* OARAC members. She provided updates on NIH staff changes, including the appointments of Dr. Monica Bertagnolli as the director of the National Cancer Institute (NCI) and Dr. Renee Wegrzyn as the director of the Advanced Research Projects Agency for Health (ARPA-H); the retirements of Dr. Anthony Fauci, the director of the National Institute of Allergy and Infectious Diseases (NIAID), and Dr. James Anderson, director of the Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI); and the appointment of Dr. Robert Eisinger as Acting Director of DPCPSI and an *ex officio* member of OARAC. Dr. Goodenow paid tribute to Dr. Neal Nathanson, who served as OAR Director from 1998 to 2000 and passed away on August 11, 2022.

Dr. Goodenow noted that 2023 marks the 35th anniversary of the Health Omnibus Programs Extension (HOPE) Act of 1988, which authorized the establishment of OAR. Over time, the growth of the HIV research program and the complex challenges and research needs of the HIV pandemic required additional coordination and budgetary authority. The NIH Revitalization Act of 1993 accelerated HIV research discoveries and authorized OAR to plan, coordinate, and evaluate HIV research; set scientific priorities for the NIH research agenda; determine the budget for HIV research; and develop the annual Professional Judgment Budget for NIH HIV research. The NIH HIV research program has grown significantly in the past 35 years. The benefits of HIV research have propelled progress in HIV science and other challenging fields, such as COVID-19. Partnerships are vital to achieving the common goal of ending HIV, with innovative and nimble responses, alongside partners who are creative and eager to be part of solutions. Although the new challenges already are emerging, Dr. Goodenow expressed confidence that ending the HIV pandemic is possible with a clear vision and goals to prevent, treat, and cure HIV. She emphasized the importance of maintaining focus and commitment to ensure progress continues in the response to the HIV pandemic.

Dr. Goodenow highlighted that fiscal year (FY) 2023 began October 1, 2022. The federal government is operating under a continuing resolution until December 16, 2022. OAR closed out the FY 2022 enacted budget of $3.2 billion, including the $104 million increase in the HIV research appropriation.

The World Health Organization declared the serious emerging outbreak of monkeypox[1] a global health emergency on July 23, 2022. As of October 2022, people with HIV account for an estimated 40 percent of monkeypox cases recorded globally. The White House recently named Dr. Demetre Daskalakis, current director of the Centers for Disease Control and Prevention (CDC) Division of HIV Prevention, its National Monkeypox Response Deputy Coordinator. NIAID sponsored two clinical trials that were initiated in September for vaccination and treatment of monkeypox. One is a phase 3 clinical trial evaluating the antiviral tecovirimat for monkeypox treatment. The other is a clinical trial evaluating strategies for administering the existing monkeypox vaccine and includes infants, children, and adults, both during pregnancy and across the lifespan. On September 28, 2022 ClinicalInfo.HIV.gov published a brief statement regarding monkeypox in people with HIV, as part of the *Guidelines for the Prevention*

[1] On November 28, 2022, The World Health Organization announced the name “mpox” is to replace what was previously referred to as “monkeypox.”

and Treatment of Opportunistic Infections in Adults and Adolescents with HIV. The statement includes links to CDC resources on monkeypox risk assessment, the need for post-exposure prophylaxis and vaccination, and antiviral treatment recommendations for people with HIV.

Several notable NIH-supported HIV science advances were presented at the International AIDS Society's 2022 conference, AIDS 2022. An additional person with HIV was reported cured following stem cell transplantation, which brings the total number of cures to date globally to five. A new molecular assay can facilitate drug development by finding hidden HIV DNA in reservoir cells. Newly reported combinations of broadly neutralizing antibodies (bNAbs) have the potential to achieve prolonged viral suppression without antiretroviral therapy (ART). Another study showed that screening for mental health conditions while providing HIV care can improve mental health, HIV treatment outcomes, and quality of life.

Dr. Goodenow noted that OAR staff resumed traveling in the summer and have been participating in both in-person and hybrid meetings. In-person listening sessions and other community engagements will resume soon, with virtual components maintained for a hybrid communication approach. OAR collaborated with HIV.gov on local site visits and a tour of the Global Village during the AIDS 2022 conference in Montreal, Canada; the Presidential Advisory Council on HIV (PACHA) meeting and site visits in Los Angeles; and the U.S. Conference on HIV (USCHA) in San Juan, Puerto Rico.

AIDS 2022 convened many participants in Montreal, with representatives from the U.S. government attending from the White House Office of National AIDS Policy (ONAP), U.S. Department of Health and Human Services (HHS) Office of Infectious Disease and HIV/AIDS Policy (OIDP), President's Emergency Plan for AIDS Relief (PEPFAR), NIH, and CDC. More than 100 presentations highlighted the value of NIH-funded HIV research. OAR staff provided remarks at the National Institute of Mental Health (NIMH) Workshop on Advancing HIV Health Communication Science; the OAR–NIMH satellite session launching a special issue of the *American Journal of Public Health*, with Dr. Dianne Rausch, director of the NIMH Division of AIDS Research, and Mr. Harold Phillips, director of the White House ONAP; and a satellite session regarding leveraging implementation science to end the HIV epidemic in the United States, which launched a special issue of the *Journal of AIDS*. OAR and HHS visited two community-based HIV clinics in Montreal. The U.S. delegation was led by HHS Assistant Secretary for Health ADM Rachel Levine, M.D. Mr. Phillips commented on the patient- and person-centered focus of the clinics and the ease of access to testing for sexually transmitted infections (STIs). Dr. Goodenow directed attendees to HIV.gov for video interviews with more reflections on these engagements.

OAR staff attended the PACHA meeting in Los Angeles on September 19-20, 2022, the first in-person meeting of the council since October 21-22, 2019. Items discussed included the *National HIV/AIDS Strategy (NHAS)*, monkeypox, older adults with HIV and long-term survivors, HIV in Los Angeles, and listening to the community. The HHS OIDP arranged several visits during the meeting. One was to REACH LA, a group that engages and empowers young LGBTQ+ people of color and their communities. Another visit was to the Trans Wellness Center, which provides comprehensive resources and services for transgender and nonbinary people. The third visit was to Bienestar Human Services, a community-based social services organization for Latinx populations in Los Angeles.

At the USCHA 2022 conference in San Juan, Puerto Rico in early October 2022, OAR organized and moderated a two-hour symposium, "Present and Future: A Discussion of the NIH Research Program" that included presentations from OAR and other NIH staff, which was

combined with a listening session with conference attendees immediately following the presentations. During the conference, OAR supported additional presentations in collaboration with the Indian Health Service (IHS), NIMH, and NIAID. OAR staff visited to the Molecular Sciences Research Center, a new facility that provides state-of-the-art laboratories and incubator research space for new ventures. The center is the result of investment in infrastructure through public–private partnerships and features new programs to train the next generation of investigators. OAR staff conducted two listening sessions in San Juan, Puerto Rico, one of the priority jurisdictions in the *Ending the HIV Epidemic in the U.S.* (EHE) initiative. Conversations at these sessions highlighted the importance of information dissemination; disaster recovery and post-traumatic responses; and the importance of including Hispanic and Latino investigators in HIV research and review processes. Upcoming OAR events include World AIDS Day on December 1, 2022, as well as events to commemorate the 35th anniversary of OAR and 20th anniversary of PEPFAR in 2023.

OAR continues to identify areas of special scientific interest and opportunities through analyses of the NIH HIV research portfolio, requests for information (RFIs), and listening sessions in parts of the country with high HIV burden. Internal and external HIV advisory committees, the NIH HIV/AIDS Executive Committee (NAEC), and OARAC are critical to these efforts. Crosscutting, forward-thinking areas of research and emphasis include HIV across the lifespan, HIV and women, and early-career HIV investigators. Two additional areas of special interest—research infrastructure and the implementation of technology advances, including HIV self-testing—were underscored during the listening sessions in Puerto Rico. Infrastructure involves many more aspects beyond rebuilding of research facilities, such as training, capacity building, public–private partnerships, and strategies to overcome the disruptions associated with natural disasters and pandemics. Self-testing is a critical tool to monitor health for people with or at risk for HIV, particularly when access to health facilities is limited.

Dr. Goodenow provided updates on the international NIH HIV research portfolio, which comprises approximately 20 percent of all NIH HIV research. OAR is legislatively mandated to undertake a range of efforts to support the global HIV research program, including support for collaborative research and training scientists in the United States and abroad. The majority of international HIV research aims to build research capacity in nations with both significant HIV burden and limited resources; special research interest areas further benefit the global HIV response.

The international NIH HIV research portfolio includes more than 1,100 projects in 95 countries. OAR presented at the Fogarty International Center Global Health Fellows and Scholars Orientation in July 2022. This engagement provided the opportunity for OAR staff to address international fellows and promote opportunities for early-stage investigators, consistent with OAR's focus on workforce development. OAR staff provided an overview of OAR and the NIH HIV research program, the international HIV landscape, and the NIH international HIV research agenda. In September 2022, OAR staff attended the Global Collaboration on Stigma and Discrimination Workshop for PEPFAR/NIH; Joint United Nations Programme on HIV and AIDS; and the Global Fund to Fight AIDS, Tuberculosis, and Malaria. This workshop was convened by OAR and NIMH and ed by academic and community partners. It aimed to highlight research-focused and community-centered approaches to reduce stigma and discrimination, spotlight successful implementation strategies from focal countries, and identify examples of reciprocal learning that could be applied both in the United States and abroad.

Dr. Goodenow noted the long-term partnership between NIH and PEPFAR on special programs designed to enhance medical education, implementation science, and integrated HIV and

noncommunicable disease care. OAR was part of the NIH delegation to the 2022 PEPFAR Annual Meeting in Montreal, the first under Ambassador John Nkengasong. The meeting focused on lessons learned that provide workable global public health strategies. PEPFAR works with countries and communities to deliver HIV treatment and prevention programs in sub-Saharan Africa and worldwide. As of 2021, at least 20 countries had achieved epidemic control of HIV.

OAR organizes the NIH observance of World AIDS Day on December 1 each year. Information on the 2022 program is posted to the OAR website[2]. The NIH International Workshop on HIV and Women, spearheaded by OAR and ORWH, is scheduled for February 17-18, 2023, followed immediately by the thirtieth Conference on Retroviruses and Opportunistic Infections (CROI), February 19–22, 2023. Both events will occur in Seattle, Washington. Because of the timing of CROI, the OARAC member orientation has been moved from late February to March 1, with the 62nd OARAC meeting scheduled for March 2, 2023 as a virtual meeting.

Discussion Highlights

OARAC members discussed areas of special interest in HIV research including HIV across the lifespan, women, early career investigators (ECI), infrastructure, and technology. Dr. Miller suggested research is needed to understand the impact inflammation has on aging especially in special conditions such as in natural disasters, monkeypox, COVID and other infections. Dr. Hazra commented that inflammatory conditions and aging remain important research areas in children and pregnant people, particularly given the potential effect on premature aging in offspring.

Research in HIV and aging was discussed and with strong interest and support from ONAP, the National Institute on Aging (NIA), and community advocates. Dr. Goodenow shared that HIV and aging is a focal research area and Dr. Richard Hodes, Director of NIA, expressed interest in forming collaborations between HIV experts and gerontologists. Dr. Tolbert noted there growing opportunities for early career scientists to take advantage of opportunities in HIV and aging. Dr. Turnbull commented that research on HIV across the lifespan provides the opportunity to include perinatally infected children who received antiretroviral (ARV) drugs since birth and through adulthood. People affected by vertical transmission are a group rarely considered as long-term survivors or included in the literature.

OARAC members commended the focus on special populations and collaborations with fields not traditionally engaged in HIV research. They encouraged OAR to continue cost-sharing initiatives with divisions and branches of the Institutes and Centers (ICs). Dr. Sleasman noted that the identification of new HIV infections will continue to lag in hardly reached populations in the US, such as in communities of color, in rural areas, and marginalized populations. These populations experience higher risk for HIV acquisition and poor clinical outcomes. Ms. Echo-Hawk inquired about the equity lens that is being applied to the areas of special interest, particularly given the lack of diversity in ECI and R01 recipients that can lead to inappropriate

[2] The 2022 World AIDS Day agenda and NIH Statement on World AIDS 2022 are accessible on the OAR website.

engagement with diverse communities. Ms. Echo-Hawk suggested NIH consider mechanisms to change the embedded systems responsible for training investigators and how research is applied to ensure greater diversity. Dr. Goodenow acknowledged the importance of such issues and planned to report in more detail on ECI in future OARAC meetings. She noted that OAR has continued to provide support to the National Institute on Minority Health and Health Disparities (NIMHD), that provides programmatic support to the ECI. Diversity in the research workforce is a high priority for NIH overall and the HIV agenda.

In response to a question about monkeypox and HIV comorbidity, Dr. Pau explained that the HIV Clinical Guidelines focus on providing recommendations for clinicians, rather than conducting research. Dr. Read commented that DAIDS developed a placebo-controlled study with an open-label component investigating tecoviramat in anyone who developed monkeypox[3]. This trial will provide information about treatment response and a natural history of the disease in the placebo group. Dr. Davey added that the U.S. Department of Veterans Affairs (VA) recently developed a monkeypox research agenda and are following approximately 900 patients diagnosed with monkeypox, about half of whom are HIV positive.

Reimagining PEPFAR Strategic Directions to End the HIV/AIDS Pandemic by 2030

Ambassador John Nkengasong, Ph.D., M.Sc., U.S. Global AIDS Coordinator and Special Representative for Health Diplomacy, PEPFAR

Ambassador John Nkengasong delivered prerecorded remarks on PEPFAR's strategic directions, noting the remarkable progress made in HIV/AIDS and the ability to bring the pandemic under control by 2030 with the right actions. Last year, more than 20 million people were on antiretroviral treatment (ART) and 2 million on pre-exposure prophylaxis (PrEP), with 5.5 million children born HIV-free, thanks to PEPFAR. Despite this progress, considerable challenges remain about 1.5 million new cases of HIV were diagnosed globally in the last year, with increased rates of infection in 38 countries and slower rates of decline in others. Ambassador Nkengasong emphasized the need to reimagine PEPFAR's strategic direction to reach the 2030 goals with five strategic pillars.

The first pillar centers on *health equity for priority populations*, such as children, adolescent girls and young women, and men who have sex with men (MSM). Currently, only 40 percent of pediatric HIV cases are identified, a number far short of the 90-90-90 goals. Adolescent girls and young women account for 60 percent of the burden of new infections in sub-Saharan Africa. Outside Africa, MSM account for 90 percent of infections. The second pillar, *sustaining the response*, requires protection of gains made to date with financial, programmatic, and political lenses. The fourth pillar focuses on developing *transformative partnerships* and collaborations to address challenges, barriers, and inequities, particularly for the special populations of the first pillar.

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[3] ACTG A5418: A Randomized, Placebo-Controlled, Double-Blinded Trial of the Safety and Efficacy of Tecovirimat for the Treatment of Human Monkeypox Virus Disease, Study of Tecovirimat for Human Monkeypox Virus (STOMP)

The third pillar is improving *public health systems and security*, which often act as barriers to health service delivery. In addition to providing health services, these systems need to protect communities from emerging infections, including COVID-19, Ebola, and large-scale cholera outbreaks. Improving health systems will allow them to respond quickly when outbreaks occur, then return to focusing on HIV. The fifth pillar is *following the science*, which should drive the HIV response, particularly in the areas of implementation science, discovery, and technology. The three enablers of these five pillars are (1) innovation in service delivery and new products, (2) use of data to drive the response and allocate resources efficiently, and (3) community leadership beyond engagement to community-led response.

Treatment advances recently allowed Botswana and Eswatini to exceed 95-95-95 targets. Treatment alone is insufficient, however; new prevention strategies are needed, as well as assessment of how such strategies are incorporated. Ambassador Nkengasong emphasized that only the combination of both treatment and prevention will allow the field to reach the 2030 goals. Implementation and behavioral science strategies are needed to ensure uptake of new products. In children, new data are needed for better case finding; population-based surveys should be considered in children to quantify and locate the burden of disease and barriers to care. Ambassador Nkengasong commented that he especially supports behavioral science and implementation science to improve treatment and prevention for adolescent girls and young women beyond simple product availability. For all populations, closing the gaps between product development and uptake is necessary to ensure that such strategies reach those who need them. Although the partnership between PEPFAR and the Global Fund has made great advances, Ambassador Nkengasong emphasized that it is not enough—the programs need to expand, collaborate, and focus resources more efficiently. Additional partnerships are needed to address specific areas, such as mental health and hypertension. In the most affected regions, new diagnostics and manufacturing capabilities are needed.

Ambassador Nkengasong emphasized that this is an exciting time; he hopes that HIV can be brought to an end by 2030 through cooperation, collaboration, and partnerships. He commented that the last mile is the most difficult mile, which will require innovation and science to reach in the eight short years before 2030, but achieving this goal is very possible. Ambassador Nkengasong stated that applying lessons learned in other countries to the U.S. HIV epidemic will make the strategy truly global.

From Product Development to Public Health Programming: Updates from the U.S. Military HIV Research Program

COL Julie Ake, M.D., M.Sc., Director, U.S. Military HIV Research Program, Walter Reed Army Institute of Research

COL Julie Ake reported on the U.S. Military HIV Research Program (MHRP), which has a mission to protect U.S. military members from HIV and improve global health by conducting research to develop an HIV vaccine, reduce new infections, and advance strategies to induce long-term HIV remission. The Walter Reed Army Institute of Research (WRAIR) and MHRP have a global footprint, with studies in many countries. The program's focus areas in HIV prevention include developing next-generation vaccine concepts, including mRNA vaccines, as well as seeking to harness multiple compartments of the immune system to achieve efficacy. Much of the heritage of MHRP is in the advancement of HIV vaccines, including the development of army liposomal formulation (ALF) adjuvants. The program is working with the

NIAID Division of AIDS (DAIDS) to develop mRNA vaccine manufacturing at a pilot production facility.

The Threat Assessment Program aims to minimize HIV and related infections in the U.S. military and to understand transmission in high-risk global populations. The program informs military policies to ensure high clinical standards for HIV prevention and treatment, engaging with communities to facilitate prevention interventions. COL Ake noted the long history of conducting research on HIV service provision in communities; WRAIR has both military-to-military and military-to-civilian programs in partnership with PEPFAR.

All of the studies benefit from a dedicated effort to standardize their immunomonitoring of viral diversity through detection of several consensus antigens of contemporaneous circulating viruses. COL Ake theorized that all countermeasures against the virus would take advantage from a standardized detection of its antigenic diversity.

MHRP actively collaborates with DAIDS and several international investigators to research acute HIV infection and remission. One ongoing cohort study aims to describe clinical, immunological, and virological characteristics of acute HIV infection. This study has screened nearly half a million individuals who sought anonymous HIV testing in Bangkok, Thailand, and enrolled 708 individuals with acute HIV infection, most of whom accepted immediate ART. The study has low attrition and high viral suppression rates, with a long length of follow-up—at 15 years, 96 percent of participants had undetectable viral loads, with only 3 percent who had experienced blips or rebound.

MHRP has been able to enroll individuals from this cohort in several analytical treatment interruption (ATI) studies, which provides insights for cure intervention studies. COL Ake emphasized that cohort studies are conducted across the WRAIR footprint to continue engaging with populations at high risk and to understand HIV incidence and uptake of interventions, such as PrEP, around the world. WRAIR now is moving toward a more standardized incidence cohort, MOCHI, which will be able to run in multiple places. COL Ake described RV329, or AFRICOS, an African cohort study supported by PEPFAR and the U.S. Department of Defense (DoD), in which research laboratories and expertise were leveraged to conduct a treatment study at 12 PEPFAR-supported clinics in Kenya, Nigeria, Tanzania, and Uganda. The study allowed researchers to address service delivery issues; assess the effect of COVID-19 on HIV treatment outcomes and comorbidities, such as cognitive impairment and mental health disorders; and conduct research on basic pathogenesis.

Overview: VA HIV Program

Victoria Davey, Ph.D., M.P.H., Associate Chief Research and Development Officer, United States Department of Veterans Affairs (VA)
Lorenzo McFarland, D.H.A., M.P.H., M.S.W., PMP, Acting Deputy Director, HIV, Hepatitis, and Related Conditions Programs, VA Office of Specialty Care

Dr. Davey provided an overview of HIV care and research in the Department of Veterans Affairs (VA), which commits to lifelong care of military veterans in four basic missions. The largest mission is the Veterans Health Administration (VHA), the largest integrated health care network in the United States. VHA provides all services for physical and mental health care, as well as social services, with almost 1,300 health care facilities across the United States and its territories, ranging from tertiary care medical centers to stand-alone clinics in rural communities. Enrollment varies each year; currently, 9 million veterans are enrolled, a subset of approximately 20 million living veterans. The program aims for a seamless transition from DoD-provided health care to the VA system.

Dr. Davey outlined the history of HIV care and research at the VA. Physicians at the VA were among the first to identify patients with Kaposi sarcoma and immune system dysfunction in 1981. The VA established a national VA HIV/AIDS Service in 1985; in 1988, the Veterans Benefits and Services Act was passed, which paid particular attention to HIV. This act provided special confidentiality for veterans' medical records regarding HIV, but also restricted the VA's ability to test for HIV, thereby becoming a barrier to implementing a public health approach. The VA established AIDS Research Centers in 1987 and began its VA HIV/AIDS Centers of Excellence for care in 1989, allowing the VA to be used as consultant centers for persons with HIV (PWH). A computerized HIV registry was developed in 1992, serving as the basis of the VA program to provide care for PWH as a population. In the 1990s, the VA's population of 20,000 PWH was older, was more representative of minorities, and had more intravenous drug use and heterosexuals than PWH in the US outside of the VA system. Providing care for a complex, chronic disease required frequent visits to the clinic, many medications—including some that were toxic—and consideration of multiple comorbid conditions. Care across the VA often was unequal. In 1999, the VA installed a risk prevention program and a Center for Quality Management in HIV Care, followed by a Center for HIV Research Resources in 2002.

The current approach to care of veterans with HIV is strongly framed around public health, which led to the development of the current goals: to offer HIV testing at least once to every veteran and more frequently to those at risk, rapidly link those with newly diagnosed HIV to effective treatment, expand timely access to high-quality HIV care and prevention across the VA's integrated network using face-to-face encounters and telehealth, and offer PrEP when clinically appropriate.

Dr. Davey referred OARAC members to the timeline of 75 years of VA research accomplishments. She pointed to the Veterans Aging Cohort Study—an NIH-funded longitudinal, prospective multisite observational study—as one example. Most VA investigators and VA sites of research are affiliated with academic institutions. The VA Office of Research and Development is an extramural funder of research by VA investigators and conducts biomedical laboratory science, clinical sciences, multicenter trials, and health services research. Its FY 2022 budget was $900 million, or $2 billion including all sources. The HIV-related projects are less than 1 percent of the research budget—only 30 projects, or $7 million in FY 2023—because the program prioritizes many other health problems that affect veterans.

Dr. Lorenzo McFarland outlined the VHA HIV, Hepatitis, and Related Conditions (HHRC) Program and its mission to be responsible for policy, quality improvement, and education and communication in the areas of HIV, HIV prevention, viral hepatitis, and STIs. The program supports, evaluates, and promotes high-quality care for veterans with viral hepatitis and HIV, as well as veterans at risk for HIV and STIs. The work of HHRC includes national data reporting, policy development, education for the field, education for veterans and their families, and sharing promising practices and innovations. In FY 2021, 31,000 veterans with HIV were in VA care; however, less than half of the veterans currently in VA care have ever been tested for HIV. Dr. McFarland referred to the restrictive policy on HIV testing prior to 2009. In calendar year 2021, 5 percent of eligible veterans were screened for HIV. Of the people diagnosed with HIV by VHA, 94 percent were linked to care in FY 2021; 74 percent of those were retained in care. Although some patients did not maintain their care at VHA during the COVID-19 pandemic, 93 percent of those for whom laboratory data are available and 73 percent of all those in care were virally suppressed.

In the national EHE initiative, HHRC is focusing on five areas spanning the entire continuum of care: (1) HIV testing, (2) HIV care, (3) PrEP uptake, (4) STI screening and co-testing, and (5) syringe services programs. Dr. McFarland emphasized that HHRC wants to ensure that veterans are active participants in their own health care. Discussion Highlights

In addition to OARAC members, the discussion included invited experts on global HIV issues: Dr. Peter Kilmarx, Deputy Director of the NIH Fogarty International Center (Fogarty); Dr. Sarah Read and Ms. Melanie Bacon from DAIDS; and CAPT Deron Burton, Acting Director of the CDC National Center for HIV, Viral Hepatitis, Sexually Transmitted Disease (STD), and Tuberculosis (TB) Prevention.

In response to a question about potential partnerships with the VA to address the complications of HIV and aging, Dr. Davey noted that the VA cohort is older than the average person with HIV in the United States, but many opportunities to collaborate further exist, especially in the clinical intervention area. Mr. McFarland noted that many clinics provide both HIV and primary care; HHRC has created a manual on patient-aligned care teams for providers of primary care to veterans with HIV. When asked if the VA's infrastructure is conducive to partnerships, Dr. Davey commented that several VA investigators expressed interest in the AIDS Clinical Trials Group (ACTG) in the past, but logistical difficulties were challenging to overcome; the COVID-19 pandemic showed that collaboration on ACTG is possible. Dr. Read commented that investigators in ACTG are very interested in these issues and would be amenable to partnerships with the VA and other ICs. She added that many issues related to aging and HIV overlap with the missions of many ICs; OAR and NIA could play valuable coordination roles.

Dr. Kilmarx pointed out that the Fogarty International Center (FIC) is the smallest NIH IC but supports the agency in global work. About a third of the total FIC budget funds HIV research, leading to 140 grants, about 70 percent of which focus on training the research workforce and capacity building in low- and middle-income countries. Fogarty has trained thousands of researchers around the world, many of whom are now international leaders in their fields. For many critical scientific questions, the best research settings are overseas in collaboration with international partners. Interventions developed in low- and middle-income countries can be deployed in the United States in a reciprocal innovation pathway. Dr. Kilmarx expressed appreciation for the support and partnership of OAR, emphasizing the importance of maintaining capacity and partnerships over time to solve these generational challenges. He noted that direct funding to partner sites drives the scientific agenda and promotes equity in global health research partnerships. When asked about the best bidirectional lessons that FIC has learned in

research program implementation, Dr. Kilmarx commented on the high levels of innovation in implementation science, particularly in reducing stigma and increasing rates of testing. Some countries already have achieved 90-90-90 targets; others have reached 95-95-95. Important factors include improved care and access to care, differentiated service delivery, and mobile health tools for retention and adherence. Dr. Kilmarx noted the skills of global leaders in HIV cure and vaccine, emphasizing that the best minds are not all in high-income countries.

Ms. Abigail Echo-Hawk asked how HIV efforts within the VA have intersected with the Million Veteran Program and pointed out that the American Indian/Alaska Native (AI/AN) community is overrepresented in those data, which could offer best practices in equity. She suggested that the VA work closely with the NIH Tribal Health Research Office (THRO) to address concerns about unethical recruitment of AI/AN individuals on tribal lands. Dr. Davey noted that AI/AN populations volunteer for the military proportionally higher than in population representation and expressed appreciation for their service. She noted that she would share specific recruitment information following the meeting.

When asked about best practices for engaging those with culturally diverse backgrounds, COL Ake replied that this is an area of continuous improvement. She agreed with Dr. Kilmarx that many of the best minds are international leaders, many of whom spearhead trials throughout the WRAIR network. Engaging these experts from the beginning of trials and always listening to their advice is critical—COL Ake emphasized that those who conduct the work in each country should provide guidance on the best practices for those trials. Although WRAIR has a manual on participatory practices and use of community advisory boards, the local leaders provide the most effective suggestions for addressing local issues.

In response to a question about how to better engage focus communities, Dr. Ivy Turnbull commented on the need to understand the rules of engagement and involve the community in the recruitment effort. Educating community members about all aspects of a clinical trial and its potential benefits is critical, as is engagement in and with the community. Ms. Echo-Hawk added that working hand-in-hand with the community is key. NIH grants may limit the ways that investigators can work with communities, so structural changes to requests for proposals are needed. Ms. Echo-Hawk commented on the need to make investigators more accountable for meeting diverse recruitment goals. The NIH Community Engagement Alliance (CEAL) Against COVID-19 Disparities and the Implementing a Maternal health and PRegnancy Outcomes Vision for Everyone (IMPROVE) Initiative were noted as examples.

Updates from the NIH Advisory Council Representatives

AIDS Research Advisory Committee (ARAC)

Monica Gandhi, M.D., M.P.H., Professor of Medicine and Associate Chief, Division of HIV, Infectious Diseases, School of Medicine, University of California, San Francisco (UCSF); Global Medicine Director, UCSF-Gladstone Center for AIDS Research; Medical Director, "Ward 86" HIV Clinic, San Francisco General Hospital

Dr. Monica Gandhi provided updates from the most recent ARAC meeting, including remarks on the NIAID budget and pay lines. In addition to the NIAID-funded clinical trials related to monkeypox treatment and prevention already noted by Dr. Goodenow, the ARAC discussed an upcoming trial of tecovirimat in the Democratic Republic of Congo. The ARAC discussed diversity, equity, inclusion, and accessibility (DEIA) initiatives from NIAID that will be applied in Centers for AIDS Research (CFARs), including enhancements to the pipeline for trainees from minority-serving institutions who plan to specialize in HIV. EHE topic supplement awards for

DEIA aspects were funded as well. Another area of focus discussed at the ARAC meeting was the effect of the COVID-19 pandemic on early-career investigators, particularly women, and supplements to mitigate the effects of the pandemic on the careers of women investigators working in HIV.

Dr. Gandhi outlined requests for applications (RFAs) in three categories: HIV cure, post-TB complications, and HIV vaccines. One RFA assesses cure strategies in cellular and animal models and methods to sustain ART-free remission. Another RFA will assess lung function and immune response after TB, risk factors for lung infection or chronic obstructive pulmonary disease (COPD), and structural barriers to effective follow-up. NIAID has also released two RFAs for HIV vaccines. One RFA focuses on creating synthetic nucleic acid platforms for rapid development and testing of vaccines and delivery of bNAbs for HIV prevention, treatment, and cure. The other focuses on combinations of immunogens and adjuvants.

NIH HIV/AIDS Executive Committee

Lis Caler, Ph.D., Health Scientist Administrator, Senior Science Advisor, Office of AIDS Research, NIH

Dr. Lis Caler reviewed concepts and FOAs related to HIV cleared by IC advisory councils and published since the previous OARAC meeting. Between June and September 2022, 10 HIV-related concepts were cleared by the advisory councils of NIAID, NIMH, the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), and the National Institute of Dental and Craniofacial Research (NIDCR), comprising seven new concepts and three reissues of previous funding opportunity announcements.

HIV Clinical Guidelines Working Groups of OARAC Updates

ARV Agents in Adults and Adolescents with HIV
Adult and Adolescent Opportunistic Infections

Alice K. Pau, Pharm.D., Staff Scientist and Clinical Pharmacist, NIAID, NIH

Dr. Alice Pau reviewed updates to the Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV, noting that although the guidelines were last updated in January 2022 and usually are updated annually, two updates were made in September. In response to the global emergence of mpox, an update was published on September 1, 2022, addressing concerns about the use of tecovirimat in patients on cabotegravir (CAB)/rilpivirine (RPV) long-acting agents and updating the drug interactions for brincidofovir.

More extensive updates were made on September 21, 2022. Pharmacokinetics of long-acting CAB (CAB-LA), used for PrEP, showed a long half-life with drug levels that can persist up to four years after the previous dose. Individuals who received CAB-LA as PrEP may have acquired HIV after discontinuation of CAB-LA but before HIV diagnosis and ART initiation, which may result in functional monotherapy and the emergence of mutations resistant to the integrase strand transfer inhibitor (INSTI) regimens the Guidelines recommend for most patients. The updated recommendations focus on the need to gather a history of CAB-LA use and perform INSTI genotypic resistance testing prior to initiation of ART in patients with a new HIV diagnosis.

If resistance testing results are not available, the Guidelines recommend initiating a boosted darunavir regimen pending test results. Several sections have been updated to address this concern.

Another issue addressed in the update on September 21, 2022, was based on additional data from the Tsepamo study, which initially prompted concern about increased rates of neural tube defects in the children of women who received dolutegravir during conception. Updated data from the same study following more women showed no increased rate of defects. The What to Start, Women with HIV, and Transgender People with HIV sections were updated based on these new data. For the third issue addressed in this revision, the drug resistance testing section was updated to refine the recommendations for resistance testing depending on viremia levels. Data have shown that individuals with persistent low-level viremia are more likely to have virologic failure and some of these cases could have resistance. Recommendations for testing after discontinuation of ART have been updated to address people who have received intramuscular long-acting CAB/RPV or acquired HIV after receiving CAB-LA as PrEP. Other updates were made to the sections on baseline evaluations, hepatitis B and C, and cost considerations.

Dr. Pau provided an update on the Guidelines for the Prevention and Treatment of Opportunistic Infections in Adults and Adolescents with HIV, which increased in usage in the last quarter. The Panel is planning a brief statement about the monkeypox and its effect on individuals with HIV; the current monkeypox statement links to information from CDC and the HIV Medicine Association (HIVMA)/Infectious Disease Society of America (IDSA) pending the completion of the full section. For hepatitis B virus, the Guidelines recommend a double-dose recombinant hepatitis B vaccine, recommend recombinant HBsAg conjugated vaccine (Heplisav-B) as an alternative, and emphasize avoidance of dolutegravir/lamivudine as ART in people who are HBsAg positive. Immunization recommendations have been harmonized with CDC recommendations across sections, have been updated to recommend two new pneumococcal conjugate vaccines, and have changed the age recommendation for recombinant herpes zoster vaccine.

IDSA and HIVMA have requested that their boards of directors review all revisions, reflecting the collaborative effort of the Guidelines panels. The co-chair representatives of HIVMA and IDSA will coordinate this review. A three-week time limit concurrent with CDC review will be required. Other updates recently were published to the Community-Acquired Pneumonia, Varicella-Zoster Virus, and Progressive Multifocal Leukoencephalopathy/JC Virus Infection sections. Updates to the hepatitis C virus and cryptosporidiosis sections are planned soon. Dr. Pau noted that many OI sections are in the process of revision, so additional updates are likely in the near future.

Discussion Highlights

Dr. Tolbert commended NIAID for its DEIA efforts, particularly related to building partnerships between CFARs and historically Black colleges and universities. He emphasized the need to retain trainees from diverse backgrounds in HIV research.

In response to a question about the lack of information on basic science initiatives, Dr. Tolbert pointed out that many PEPFAR innovations are driven by basic science, according to Ambassador Nkengasong. OARAC members agreed on the need to continue supporting basic science. Dr. Read commented that although the updates at this meeting did not focus on basic science, NIAID supports a significant amount of basic science. Dr. Goodenow reminded

OARAC members that each meeting provides only a snapshot of recent activities—a different picture would emerge in a different timeframe.

Public Comment

CAPT Mary T. Glenshaw, Ph.D., M.P.H., OAR, NIH

CAPT Mary Glenshaw summarized a comment from Mr. Jules Levin of the National AIDS Treatment Advocacy Project, who expressed concern that NIH is not meeting the needs related to people with HIV and aging. [The full text of this comment appears at the end of this document.]

Closing Remarks and Adjournment

Maureen M. Goodenow, Ph.D., OAR, NIH
Blanton Tolbert, Ph.D., OARAC Chairperson, Professor, Case Western Reserve University

Dr. Goodenow thanked the Council members and speakers. Dr. Tolbert added his thanks and adjourned the meeting at 3:35 p.m. EDT.

Certification

I hereby certify that, to the best of my knowledge, the foregoing summary minutes are accurate and complete.

Blanton Tolbert Digitally signed by Blanton Tolbert Date: 2023.03.29 12:07:05 -04'00'

Blanton Tolbert, Ph.D.
Chair, OARAC

03/29/2023
Date

Mary Glenshaw -S Digitally signed by Mary Glenshaw -S Date: 2023.03.31 14:44:07 -04'00'

CAPT Mary Glenshaw, Ph.D., M.P.H.
Executive Secretary, OARAC

03/31/2023
Date

Public comment received: 12:57 pm on October 27, 2022
Comment made by: Jules Levin, National AIDS Treatment Advocacy Project

The OAR is not meeting the needs around Aging & HIV. I am here today to raise serious concern around the problem we PLWH face of aging with HIV. The current Aging & HIV Research agenda is outdated & inadequate and I have tried to raise this point but I have not been allowed to. It gets little attention on OARAC meetings. I have spoken with NIA leadership about the need to switch course to initiate aging & HIV research that fits the needs of the current aging & elderly PLWH. I was the person who 17 years ago asked Jack Whitescarver - the former OAR director - to begin the OAR-NIH Aging RFP program. Now the HIV population is 17 years older in the USA and many PLWH are frail with mental & physical impairments & disabilities. Care in the clinics is right now unable to meet the needs of the elderly PLWH in the USA. The OAR needs to listen to new ideas for research, not old stale research agenda ideas. We need NEW types of research to address needs in the clinic and for future care. We need implementation research that can help us bring better care into the clinic. We also need new research that addresses key questions around sarcopenia, frailty, cognitions impairment, physical function impairment. This is not going on - we need geriatric care elements of screening & care in the clinic; we need much additional new types of research. The OAR must let me speak to the OAR about the new needs the must be addressed. I have tried to bring my thoughts & opinions to the OARAC but I have been unable to do so. I ask for a meeting on the subject of Aging & HIV needs in research and care at which myself and several other experts I work with on this from the ACTG to be present.

Jules Levin
National AIDS Treatment Advocacy Project