


NIH HIV/AIDS Executive Committee

FY 2019 EHE in the U.S. Report

October 2021



Ending
the
HIV
Epidemic

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Statement from the OAR Director



For 40 years, the United States federal government has saved countless lives by addressing the human immunodeficiency virus (HIV) pandemic. We have come a long way, from the detection of a rapidly spreading infectious disease with high mortality in the early days of the pandemic to the current management of the condition with potentially near-normal life expectancy. Many important milestones have been achieved on the road to controlling and mitigating HIV.

Despite these achievements, rates of new HIV infections in the United States and globally continue to increase in some populations and remain unchanged in others, reflecting inequalities and health disparities by race, ethnicity, sex, gender, age, socioeconomic status, and geography. Understanding and addressing inequalities and health disparities is key to optimizing the outcomes of decades of HIV and AIDS research.

The 2019 U.S. presidential State of the Union address included an unprecedented challenge and an ambitious goal: to end the HIV epidemic in the United States by the year 2030. The Ending the HIV Epidemic (EHE) in the U.S. initiative is built upon the foundation of four decades of federal response to HIV/AIDS, including the critical work by those affected by HIV, people with HIV and their families and friends, scientists, community and health professionals, advocates, and legislators. The EHE initiative capitalizes on these efforts by making use of the powerful tools at its disposal: a combination of political will, coordinated federal response, cutting-edge science, epidemiological understanding, community engagement, and effective interventions.

As the largest health research agency in the world and a key agency within the U.S. Department of Health and Human Services (HHS), the National Institutes of Health (NIH) is a driver of this progress through funding that makes possible extensive basic, clinical, translational, and implementation HIV research crucial to achieving HIV epidemic control. The NIH Office of the Director, through the Office of AIDS Research (OAR), coordinates the HIV research agenda across NIH Institutes, Centers, and Offices (ICOs). In addition to collaborating with HHS agencies and other EHE stakeholders, OAR is responsible for monitoring, tracking, and reporting NIH EHE investments across ICOs. In this role, OAR monitors, tracks, and reports NIH EHE investments across the ICOs. To this end, the OAR-hosted NIH HIV/AIDS Executive Committee (NAEC) convened an intra-NIH working group to foster communication and collaboration and facilitate reporting and planning of EHE activities at the agency level.

In addition to coordination within the NIH, OAR closely collaborates with HHS, the Centers for Disease Control and Prevention, Health Resources and Services Administration, Indian Health Service, Substance Abuse and Mental Health Services Administration, and other key EHE implementing agencies and partners across departments. OAR is an active participant in the federal structures that oversee EHE activities, including the Presidential Advisory Council on HIV/AIDS and the HHS EHE Operational Leadership Team.

It is noteworthy that although no direct EHE funding was made available until fiscal year (FY) 2020, the importance of the EHE goals enabled creative collaborations to “kick-start” EHE-focused research. The Ending the HIV Epidemic Working Group of the NAEC is pleased to share this FY 2019 reporting of EHE activities conducted by the NIH.

Maureen M. Goodenow, Ph.D.

***Associate Director for AIDS Research and Director,
Office of AIDS Research, NIH***



Executive Summary

The Ending the HIV Epidemic in the U.S. (EHE) initiative leverages research advances in HIV prevention, diagnosis, treatment, and outbreak response by coordinating the highly successful programs, resources, and infrastructure of agencies and offices under the U.S. Department of Health and Human Services (HHS). The role of the National Institutes of Health (NIH) in EHE involves providing the most effective, evidence-based approaches to address the HIV epidemic domestically. NIH's role in EHE is led by the Office of AIDS Research (OAR), which coordinates the HIV research agenda across the agency. OAR is responsible for collaborating with HHS agencies and other EHE stakeholders as well as monitoring, tracking, and reporting EHE investments across all NIH Institutes, Centers, and Offices (ICOs). To heed this responsibility, OAR collaborated with its NIH HIV/AIDS Executive Committee EHE Working Group to send a data call to ICOs requesting information on FY 2019 EHE research. ICOs submitted 331 projects in response to the data call. After analysis by senior science advisors and OAR leadership, 210 (63%) were determined to be "EHE projects." This report disseminates key findings from this analysis and discusses the way forward for NIH-supported HIV research to meet EHE goals to reduce new HIV infections in the United States by 75 percent by 2025 and by at least 90 percent by 2030.

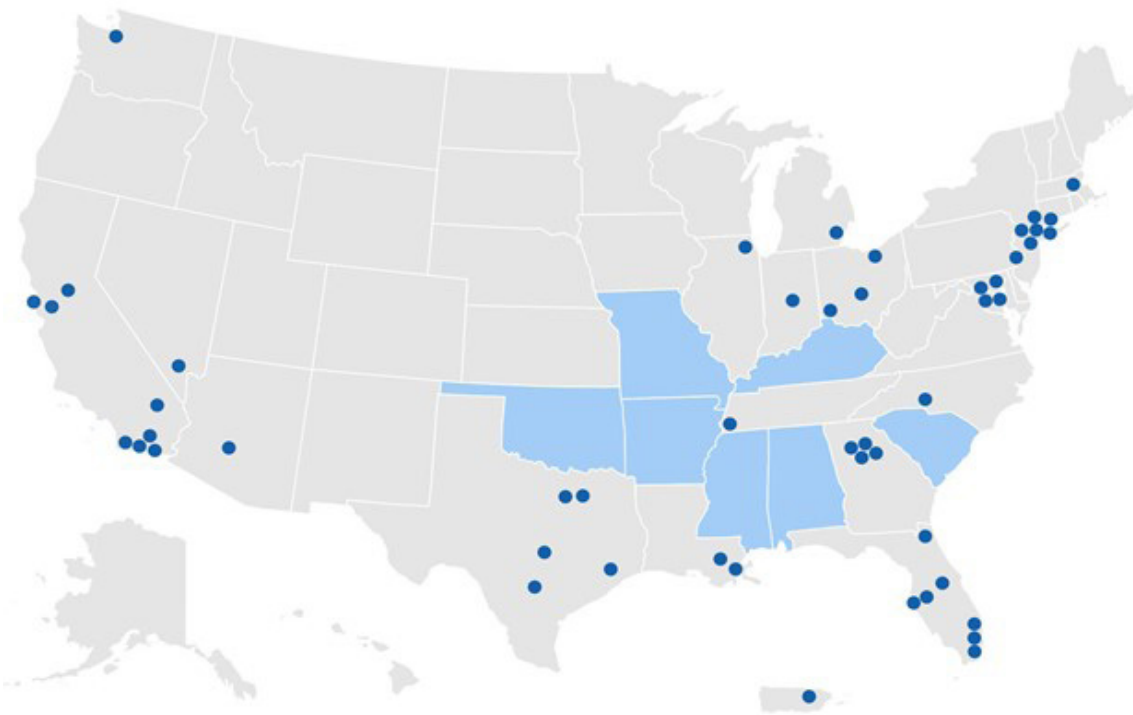
Background

Overview of EHE

The 2019 U.S. presidential State of the Union address included an unprecedented challenge and goal: to end the HIV epidemic in the United States by the year 2030. Soon after that, the U.S. Department of Health and Human Services (HHS) announced Ending the HIV Epidemic: A Plan for America in February 2019. This initiative was renamed in 2021 as Ending the HIV Epidemic in the U.S. (EHE). This interagency initiative leverages critical scientific advances in HIV prevention,

diagnosis, treatment, and outbreak response by coordinating highly successful programs, resources, and infrastructure of HHS agencies and offices. Phase 1 of the initiative focuses on 57 jurisdictions where more than half of new HIV diagnoses occurred in 2016 and 2017 (**Figure 1**). These locations will be the focus of the first five years of EHE implementation, intended to bring a rapid infusion of additional resources, expertise, and technology to develop and implement locally tailored EHE plans.^{1,2}

Figure 1: Map of Phase 1 EHE Jurisdictions



Note: The 57 jurisdictions where >50 percent of HIV diagnoses occurred in 2016 and 2017.

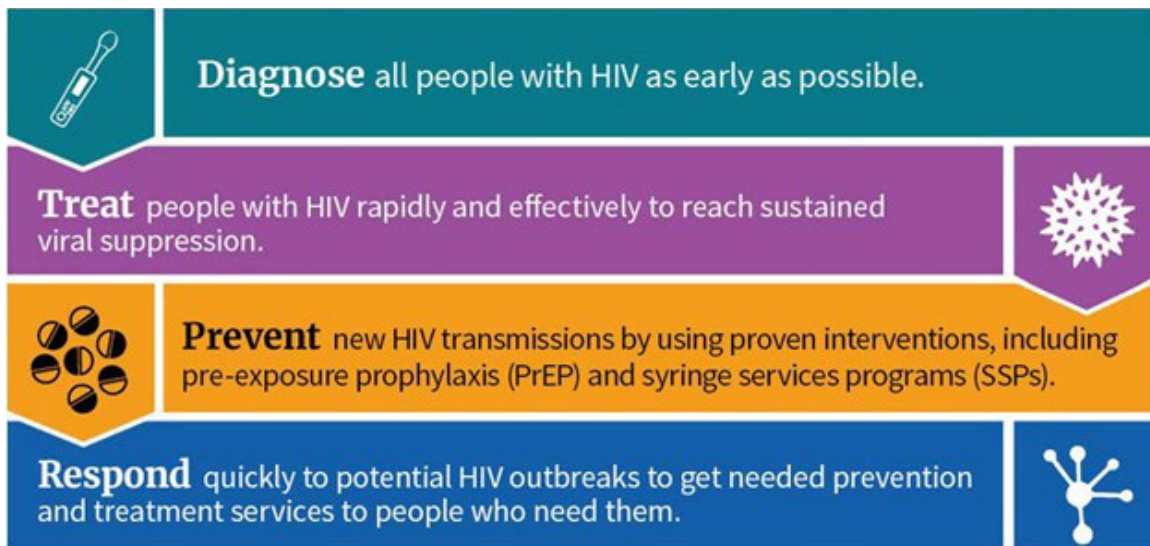
Key: Blue dots = 48 counties, Washington, D.C., and San Juan, Puerto Rico; blue shaded = seven states with a substantial number of HIV diagnoses in rural areas.¹

EHE Pillars

To achieve the goal of reducing new HIV infections in the United States by 75 percent by 2025 and by at least 90 percent by 2030, EHE focuses on four key strategies, or pillars,

that together can end the HIV epidemic in the United States: Diagnose, Treat, Prevent, and Respond (**Figure 2**).

Figure 2: Four Key Strategies



Note: Four pillars or key strategies included in the EHE initiative.¹

NIH's Role in EHE

Currently, a significant gap in the HIV care continuum exists in the United States, with 56 percent viral suppression among adults and adolescents with HIV and just a 50 percent retention in care.³ Suboptimal outcomes are amplified by health disparities in populations that have a disproportionate HIV burden, face reduced access to services, and experience a number of confounding social and economic factors. Groups that are particularly vulnerable include Blacks and African Americans, Hispanics and Latinos, men who have sex with men (MSM), people who inject drugs, and populations involved in the criminal justice system. More than 1.1 million people who are at risk of HIV exposure through sexual

contact or injection drug use would benefit from pre-exposure prophylaxis (PrEP),⁴ and an additional 1.1 million people with HIV require treatment initiation and retention services.^{5,6} Addressing the gaps and meeting EHE milestones will be accomplished in part through a combination of adaptation, implementation, and scale-up of existing HIV interventions, as well as discoveries necessary to create novel diagnostics, monitor viral loads, and develop new therapies. HIV-related implementation research funded by the NIH is essential to demonstrate the most effective strategies to facilitate the adoption and integration of evidence-based HIV prevention and treatment interventions in real-world settings.

EHE Funding Data and Analysis: Purpose

The primary purpose of this report is to summarize EHE-relevant research activities at the NIH during FY 2019. This analysis provides a critical baseline for future activities. It serves as the launch of EHE research implementation from which to measure milestones, advancements, and gaps throughout the duration of the initiative and beyond. This analysis enables the reporting of the NIH-funded EHE research landscape in its entirety.

The period covered by this report is FY 2019 (October 1, 2018, through September 30, 2019). Although the EHE initiative was introduced in February 2019, EHE funding was not appropriated to the NIH until October 1, 2019, with the start of FY 2020. Thus, the NIH EHE activities reported in FY 2019 were awarded following redirection of funding from the following sources: the OAR Innovation Fund, NIH ICO base HIV budgets, and the HHS Minority HIV/AIDS Fund. The agile redirection of these sources enabled the NIH “kick-start” of EHE-focused research.

To facilitate this baseline report, OAR partnered with the NIH HIV/AIDS Executive Committee (NAEC) to define and identify relevant NIH EHE projects for FY 2019. The NAEC is the internal advisory and coordinating committee for all NIH HIV research efforts and provides recommendations

to OAR leadership regarding the development and implementation of HIV/AIDS research programs and funding priorities following the *NIH Strategic Plan for HIV and HIV-Related Research*.^{7,8} The NAEC also facilitates inter- and intra-agency communication among OAR and the ICOs to coordinate program initiatives and assists in the governance of NIH-wide HIV/AIDS research plans, policies, and procedures. NAEC membership primarily includes a designated HIV/AIDS research coordinator from each ICO with an HIV/AIDS research budget.⁷ NAEC members provide critical insight into the development of EHE funding, data requests, scope of analysis, and the establishment of EHE categories and associated definitions.

To define and identify relevant NIH EHE FY 2019 projects, NAEC representatives participated in the NAEC EHE Working Group (WG) to inform the collection of data from each ICO and perform a review of funded EHE projects. In February 2020, a funding data request was sent to ICOs with HIV funding to solicit information on active EHE research for FY 2019. EHE projects received in response to this data call are considered baseline, with ongoing and newly funded supplements from allocated HIV funds.

Scope of the Data Call and Analysis

Projects of interest for the funding data request included NIH grants awarded in FY 2019 for EHE research. Additional criteria for the data call included the following:

- Project inclusion criteria
 - Required
 - Address at least one EHE pillar

- Implement in at least one EHE 57 Phase 1 jurisdictions (all U.S. domestic sites)
- Optional information
 - Implementation science
 - Translational science and/or clinical research
 - Behavioral and social sciences research
 - Epidemiological/surveillance and another noninterventional research
- Collaboration with another Operating Division
- Collaboration with nongovernmental organizations
- Exclusion criteria, primary methodology
 - HIV cure research
 - Non-human primates or other animal studies
 - International research

Methods

Definitions—Analysis Criteria and Inclusion Criteria

Projects submitted that met the initial analysis criteria were placed into one of the following categories:

1. **EHE Direct** are projects that target EHE-relevant approaches, include an implementation component that will impact EHE goals directly, include at least one of the four pillars, and are conducted in EHE initiative-focused jurisdictions. Projects funded by redirected OAR innovation funds, NIH base funds, or HHS Minority HIV/AIDS Funds that target EHE. Projects that may require revision, adaptation, and an implementation component may be pilot stage only.
2. **EHE Related** are projects funded from an ICO base to include studies that target the EHE goals, include at least one of the four pillars, and are conducted in EHE jurisdictions. These projects target relevant approaches that may need some revision and adaptation prior to implementing and include pilot implementation components that will impact EHE goals directly.
3. **EHE In Development** are projects aimed to develop approaches that meet EHE goals but are formative in nature or require extensive testing before translation or implementation (e.g., studies to better understand stigma, hypothesis-generating research, proof-of-concept studies).
4. **Basic Science/Discovery** are projects that identify important factors that will define new research approaches or inform important intervention targets (e.g., observational epidemiology, cohorts, social network interactions, structural impacts).
5. **International** are topically relevant projects conducted outside of the United States.
6. **Related Projects, but not in the 57 jurisdictions** target relevant approaches that may need some revision and adaptation

prior to implementing. They also may include pilot implementation components that will impact EHE goals directly but are not conducted in any of the 57 jurisdictions.

7. Not EHE are projects outside any of the above definitions.

Projects categorized as Direct, Related, and In Development were considered EHE projects. Projects in all other categories were excluded from further analysis.

Data Collection

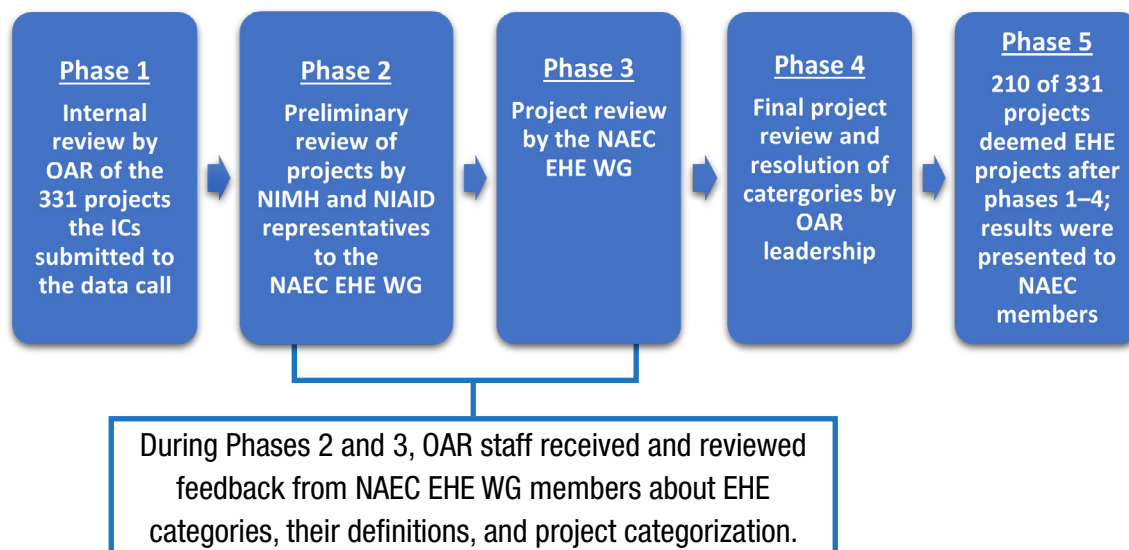
ICOs were asked to submit a list of funded projects that supported EHE goals using an Excel template with the following data elements:

- Administrative Institute or Center (Admin IC)
- Grant number
- Application identifier (Appl ID)
- Project title
- Parent grant title
- Principal investigator (PI) name
- FY 2019 award amount; out-year funding levels were not reviewed
- Funded institution
- End year of grant
- Link to project on the Query, View, and Report (QVR) System
- Variables of interest
 - Epidemiology, surveillance, or nonintervention research? (Y/N)
 - Is this project aligned to EHE pillars or inform EHE pillars?
 - Pillar 1: Diagnose all people with HIV (PWH) early (Y/N)
 - Pillar 2: Treat PWH rapidly (Y/N)
 - Pillar 3: Prevent new HIV transmissions (Y/N)
 - Pillar 4: Respond quickly to new HIV outbreaks (Y/N)
 - Primary implementation jurisdiction (fixed choice)
 - Population of interest (free text)
 - Implementation research? (Y/N)
 - Primary federal interagency collaboration
 - Primary organizational collaboration (nonfederal government collaborator)

Data Review and Analysis

Members of the NAEC EHE WG and OAR staff analyzed the data set. The review and analysis of projects were completed in the phases depicted in **Figure 3**.

Figure 3: Flowchart of review processes for FY 2019 NIH EHE data



Key: EHE = Ending the HIV Epidemic; ICs = Institutes and Centers; NAEC = NIH HIV/AIDS Executive Committee; OAR = Office of AIDS Research; WG = Working Group

Results

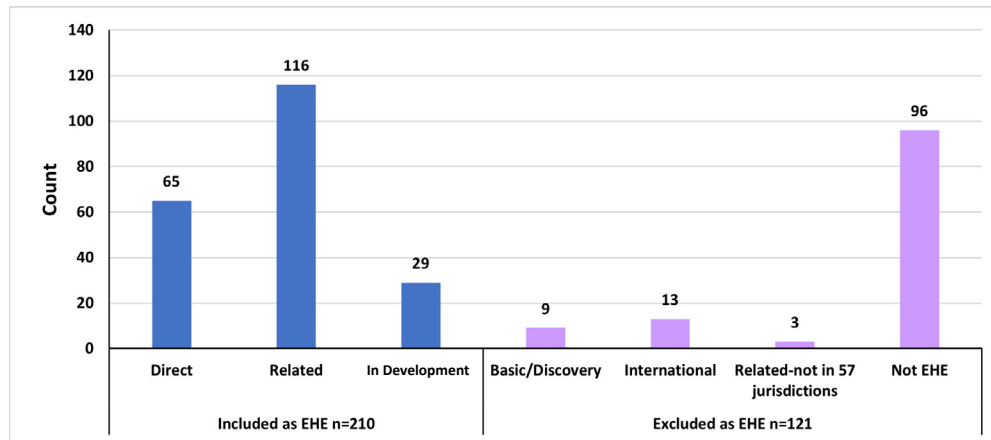
Ten ICs submitted a total of 331 projects in response to the request for EHE-relevant funding data. The projects were assigned to initial analysis criteria by the internal OAR review

team: (1) EHE Direct; (2) EHE Related; (3) EHE In Development; (4) Basic Science/Discovery; (5) International; (6) Related, but not in one of the 57 jurisdictions; and (7) Not EHE.

FY 2019 EHE Projects, by Category

The distribution of the 331 projects by category is shown in **Figure 4**.

Figure 4: Distribution of FY 2019 EHE Projects by Category



Note: Distribution of all projects received in the FY 2019 data call (N = 331) by category, whether included in the final analysis or not.

About two-thirds of the projects (210/331; 63%) met the criteria for EHE Projects (Direct, Related, and In Development projects). Projects excluded from the analysis (N = 121) did not meet EHE inclusion criteria (n = 96); International (n = 13); Basic Science/Discovery (n = 9); or Related, but not in one of the 57 jurisdictions (n = 3).

The majority of the 210 EHE projects were categorized in the EHE Related category 116/210 (55%); (**Figures 3 and 4**). A total of 29 projects were included in the EHE In Development category.

FY 2019 EHE Projects, by Administrative IC

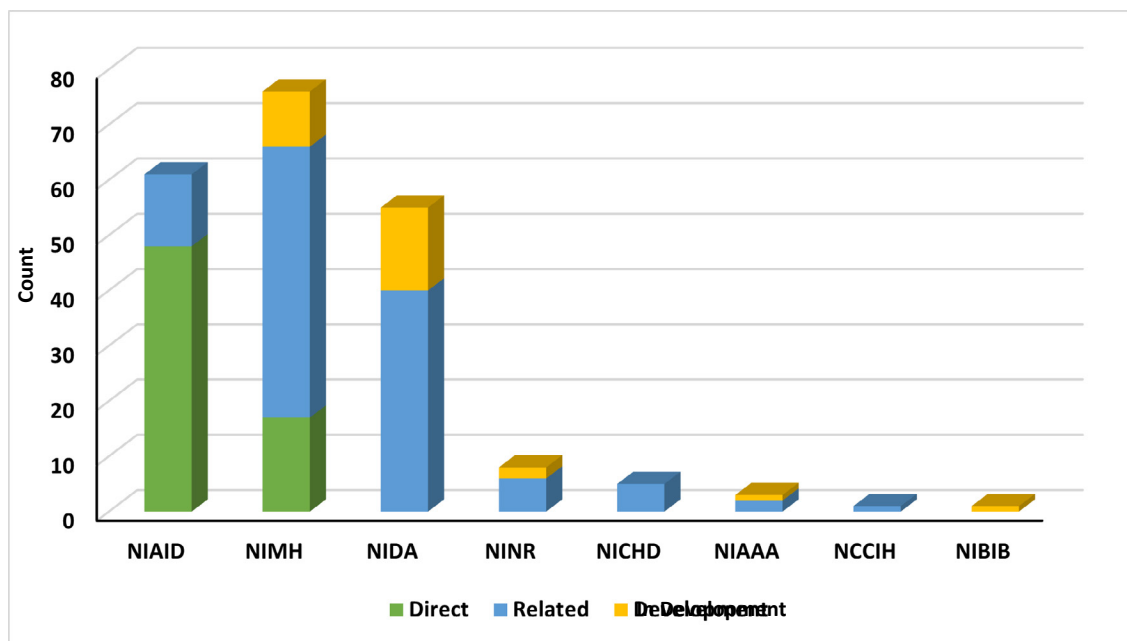
The distribution of the 210 EHE projects and their assigned categories (Direct, Related, or In Development) across these eight ICs is shown in **Figure 5**. FY19 EHE projects were administered by: NIAID, NIMH, NIDA, NINR, NICHD, NIAAA, NCCIH, and NIBIB.

- 65 EHE Direct projects administered by NIAID (n = 48) and NIMH (n = 17).

The 210 EHE Projects that met the inclusion criteria were assessed by category and corresponding ICO (**Figure 5**). The 65 projects in the Direct category were 1-year supplements for EHE implementation science research and were awarded to NIAID’s Centers for AIDS Research and to NIMH’s AIDS Research Centers. These supplements were supported by OAR innovation funds, redirected NIH base funds, or HHS Minority HIV/AIDS Funds for EHE implementation science research.

- 116 EHE Related projects administered by NIAID (n = 13), NIMH (n = 49), NIDA (n = 40), NINR (n = 6), NICHD (n = 5), NIAAA (n = 2), and NCCIH (n = 1).
- 29 EHE In Development projects administered by NIMH (n=10), NIDA (n=15), NINR (n = 2), NIAAA (n = 1), and NBIB (n = 1).

Figure 5: EHE Research Projects, by Administrative Institute or Center







Note: Distribution of FY 2019 projects submitted to the data call that were categorized as Direct, Related, or In Development and included in the final analysis (N = 210), by the administering Institute or Center.

FY 2019 EHE Projects, by Pillar

Each of the 210 EHE projects was assigned to one or more of the four EHE pillars: (1) Diagnose, (2) Treat, (3) Prevent, and (4) Respond (**Figure 6**). Project counts under each pillar were not mutually exclusive; some projects addressed more than one EHE pillar. Representative projects for each of the four EHE pillars include “Modeling Techniques to Identify Populations Placed at Increased

Risk of HIV” (Diagnose), “Optimizing Implementation of Long-Acting Injectable Treatment” (Treat), “Improvement of PrEP Uptake in Key Populations” (Prevent), and “Enhanced HIV Surveillance Approaches to Better Detect Outbreaks and Identify People in Need of Prevention and Treatment Measures” (Respond).

Figure 6: Distribution of the 210 EHE projects, by pillar and category

					
		Pillar 1	Pillar 2	Pillar 3	Pillar 4
		Diagnose	Treat	Prevent	Respond
Direct	NIAID	15	26	29	11
	NIMH	8	13	11	6
	Direct Total	23	39	40	17
Related	NIAAA	2	0	0	0
	NIAID	1	2	4	7
	NICHD	4	4	2	0
	NIDA	11	17	32	6
	NINR	1	2	5	0
	NIMH	13	21	27	0
	NCCIH	0	1	0	0
Related Total	32	47	70	13	
In Development	NIBIB	1	1	1	1
	NIDA	7	7	15	4
	NIAAA	0	1	0	0
	NINR	0	0	2	0
	NIMH	0	5	6	0
In Development Total	8	14	24	5	
Overall Total		63	100	134	35

Notes: Project counts under pillars are not mutually exclusive.

Pillar 1 = Diagnose all people with HIV as early as possible.

Pillar 2 = Treat people with HIV rapidly and effectively to reach sustained viral suppression.

Pillar 3 = Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis and syringe services programs.

Pillar 4 = Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.

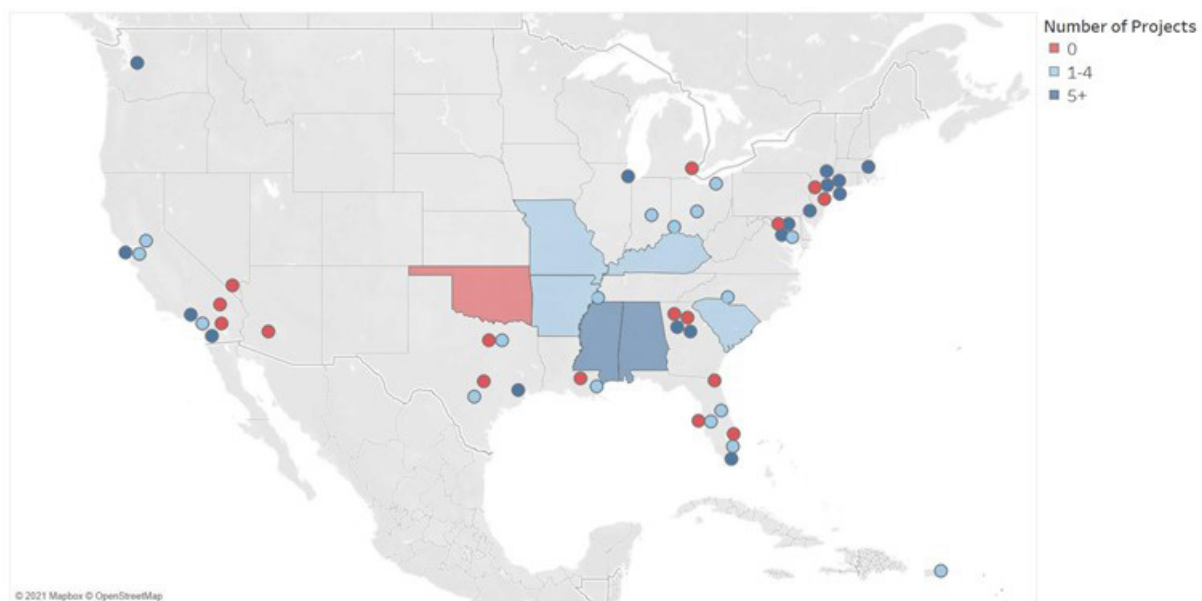
Performance Site Map

Participating ICs also indicated the research performance location of specific projects when such information was available.

Figure 7 and Appendix 5 show the performance site map and the number of reported projects in the 57 jurisdictions, respectively. Locations with multiple FY 2019 EHE projects include

San Francisco County, CA; Cook County, IL; Suffolk County, MA; New York County, NY; Mississippi (state); and Alabama (state). In contrast, several Phase 1 jurisdictions have a paucity of research being conducted, as indicated by the red highlight and locations with relatively few projects shown in Appendix 5.

Figure 7: FY 2019 Phase 1 EHE Jurisdictions, by NIH Project Density



Note: Location of performance sites identified in grants in relation to EHE jurisdictions. Blue shading indicates the number of projects by jurisdiction, and red shading shows the lack of such projects.

Key Topics in EHE Research

Titles and abstracts of the 210 Direct, Related, and In Development EHE projects were visualized using the IN-SPIRE™ (Spatial Paradigm for Information Retrieval and Exploration) tool for topical analysis. IN-SPIRE is a document analysis visualization program developed by Pacific Northwest National Laboratory.⁹ The IN-SPIRE ThemeView™ visualization provides a

three-dimensional terrain map (**Figure 8**) display of the projects, organized spatially by their topical signatures.⁹ The text engine scans through the document collection and automatically determines the distinguishing words or “topics” within the collection, using statistical measurements of word distribution, frequency, and co-occurrence with other words. Distinguishing words are those that

help describe how each document in the data set is different from any other document.⁹ The number of projects for each auto-generated topic is shown below. The projects in each peak are mutually exclusive and will fall into one topical area. This visualization provides an overview of topics covered by the projects but is not meant to be a comprehensive glossary.

The concept list below includes broad topics, such as HIV care and treatment, behavioral prevention research, and HIV transmission. The total project count below includes the 210 projects categorized as Direct, Related, and In Development. Because the project

topics cover similar themes, some overlap of scientific concepts between peaks does occur.

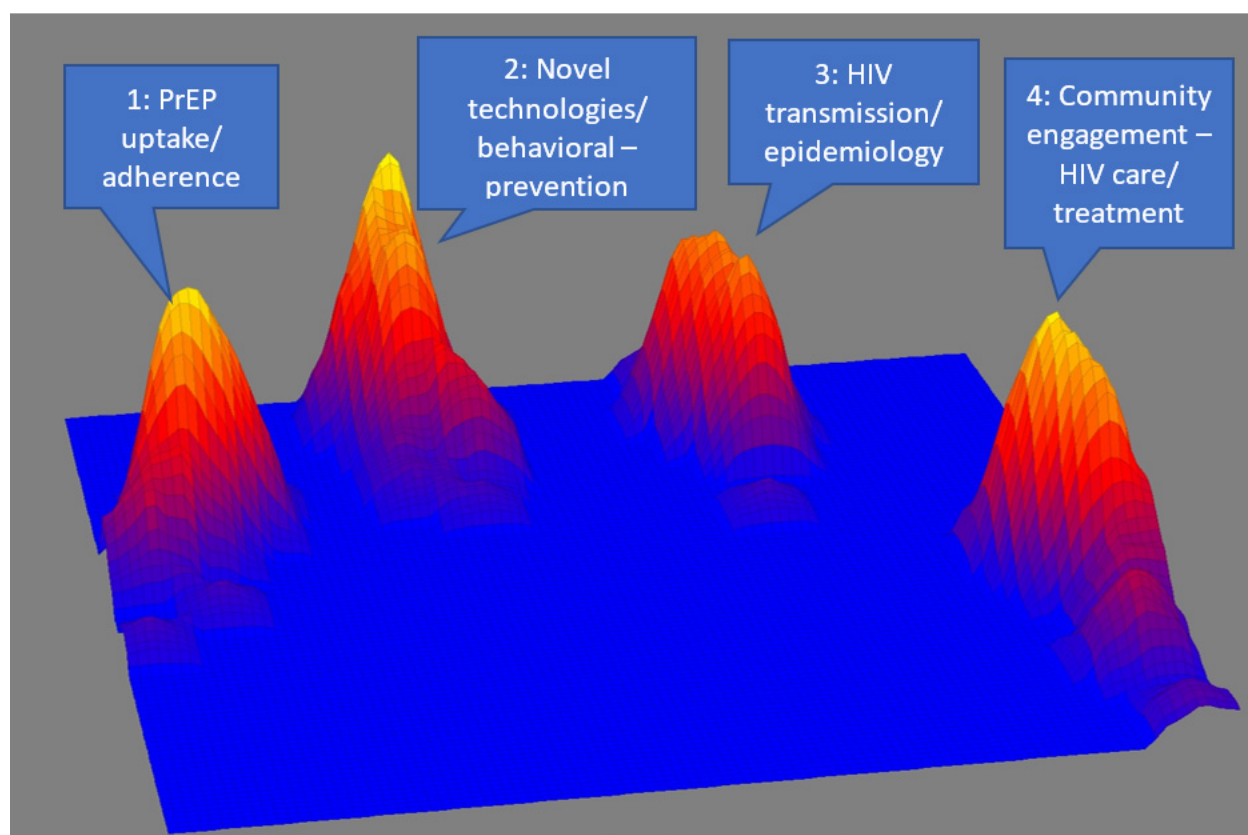
Peak 1: PrEP uptake and PrEP adherence (43 projects)

Peak 2: Novel technologies in HIV prevention; behavioral and social science—prevention; substance abuse (57 projects)

Peak 3: HIV transmission research; epidemiology; needle exchange; modeling (53 projects)

Peak 4: Community engagement—HIV care and treatment; antiretroviral therapy (ART); viral suppression (57 projects)

Figure 8: Topic Modeling Visualization for FY 2019 EHE Projects



Note: Graphical representation of title and abstract analysis of EHE projects. The size of the peaks corresponds to the number of projects under a topic and the distance between the peaks corresponds to the similarity of the topic. Clusters are autogenerated based on the machine learning algorithm in the IN-SPIRE™ software.⁹

Summary and Future Directions

The analysis of FY 2019 NIH EHE funding data established a framework for OAR to monitor, track, and report NIH EHE investments across ICOs and provided a distinct baseline for these metrics. In collaboration with the NAEC EHE WG, this methodology was developed with the intent to identify and define relevant NIH-funded FY 2019 EHE research grants and administrative supplements.


Administering ICs submitted a total of 331 projects to this data request. Of these, 210 (63%) projects were deemed “EHE projects” and were included in the final analysis. The NAEC EHE WG created three final inclusion categories, EHE Direct, EHE Related, and EHE Related In Development, to classify data collected. Projects excluded from the analysis (n = 121) were classified as unrelated to the EHE Initiative for FY 2019 and included research in international settings, basic science/discovery research, and activities conducted outside the initial 57 EHE jurisdictions.

The 210 EHE projects included in the final analysis were submitted by the following administering ICOs: NIAID, NIMH, NIDA, NINR, NICHD, NIAAA, NCCIH, and NIBIB. The analysis identified 65 one-year projects classified as “EHE Direct” (NIAID and NIMH CFAR and AIDS Research Center supplements that received redirected NIH base funds or HHS Minority HIV/AIDS Funds specifically for EHE); 116 projects in the “EHE Related” category that met key EHE criteria but were not special initiative funded; and 29 projects in the “EHE In Development” category that supported EHE aims, but were formative

or hypothesis generating in nature. The 210 projects in the final analysis addressed one or more EHE pillars by aiming to improve HIV diagnosis, treatment, prevention, and/or response among key populations in various Phase 1 jurisdictions. Across all these categories, the majority of the 210 projects focused on the Prevent pillar (45%), followed by Treat (34%), Diagnose (21%), and Respond (12%). Although these focus areas are not mutually exclusive, this trend persists within each of the Direct, Related, and In Development categories. Future iterations of this report may include revisions to the EHE relevance categories and pillar groupings as the initiative grows and expands beyond the initial 57 jurisdictions.

Several conclusions can be gleaned from the gathering of baseline project data at the NIH. The process of requesting, receiving, reviewing, and reporting these data was iterative. Although lengthy, it engaged stakeholders throughout the NIH and resulted in inter-Institute agreements and consensus among members of the NAEC EHE WG and set a strong foundation on which to build future reports. Furthermore, the utility of tracking categories, pillars, jurisdictions, and topics lends itself to identifying areas reaching saturation and those not addressed optimally.

As we look ahead, we aim to collect monitoring data from multiple sources, including such tools as the HHS dashboard and other databases. Additional refinements of the current report to include populations, methodologies, and interventions used in NIH



EHE research will further identify needs and areas of future investment.

Findings from the analysis of FY 2019 EHE projects will be integral to informing future NIH-funded research efforts focused on EHE and foundational to the implementation and uptake of proven HIV treatment and

prevention approaches. The adaptation and implementation of evidence-based strategies to address HIV in real-world settings will be critical to meeting the EHE goal of reducing new HIV infections in the United States by 75 percent by 2025 and by at least 90 percent by 2030.

Acknowledgments

This report was made possible with data, input, and review from the National AIDS Executive Committee Ending the HIV Epidemic working

group, with representation from: FIC, NHLBI, NIAAA, NIAID, NICHD, NIDA, NIDDK, NIMH, NINR, OBSSR, THRO, and SGMRO.

References

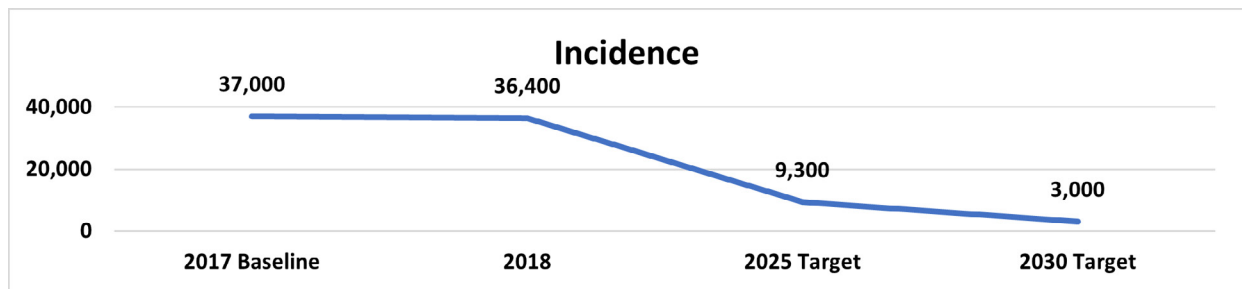
- ¹ HIV.gov. 2020. “What Is *Ending the HIV Epidemic in the U.S.*?” <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Accessed 02 April 2021.
- ² Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP. Ending the HIV Epidemic: A Plan for the United States. *JAMA*. 2019;321(9):844-5.
- ³ CDC. 2020. *Estimated HIV Incidence and Prevalence in the United States 2014–2018*. HIV Surveillance Supplemental Report 2020;25(No. 1). Available at: <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-supplemental-report-vol-25-1.pdf>.
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- ⁵ CDC. 2019. “HIV Nexus: CDC Resources for Clinicians.” <https://www.cdc.gov/hiv/clinicians/index.html>. Accessed 02 April 2021.
- ⁶ Owens DK, Davidson KW, Krist AH, Barry MJ, Cabana M, Caughey AB, et al. Preexposure Prophylaxis for the Prevention of HIV Infection: U.S. Preventive Services Task Force Recommendation Statement. *JAMA*. 2019;321(22):2203-13.
- ⁷ OAR. 2020. “NIH HIV/AIDS Executive Committee.” <https://www.oar.nih.gov/trans-nih-hiv-research-program/naec>. Accessed 02 April 2021.
- ⁸ OAR. 2020. *NIH Strategic Plan for HIV and HIV-Related Research*. Available at: <https://www.oar.nih.gov/hiv-policy-and-research/strategic-plan>.
- ⁹ U.S. Department of Energy, Pacific Northwest National Laboratory. 2019. “IN-SPIRE™ Visual Document Analysis.” <https://in-spire.pnnl.gov/index.stm>. Accessed 02 April 2021.

Appendix 1: Ending the HIV Epidemic (EHE) Indicators

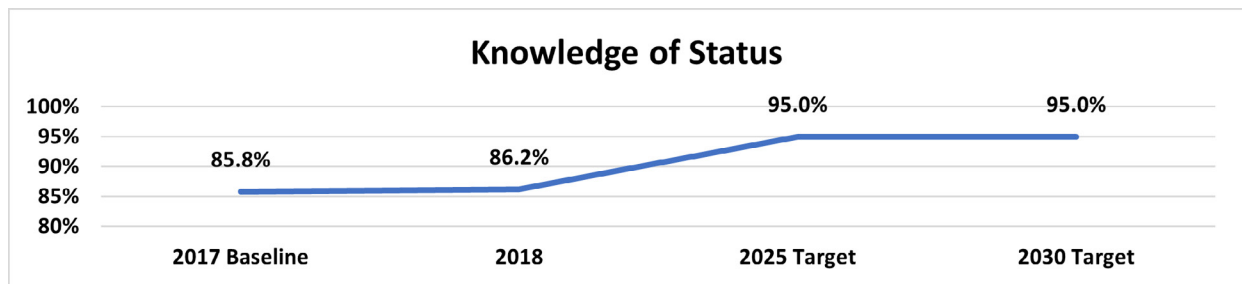
Tracking the Progress: The Six EHE Indicators*



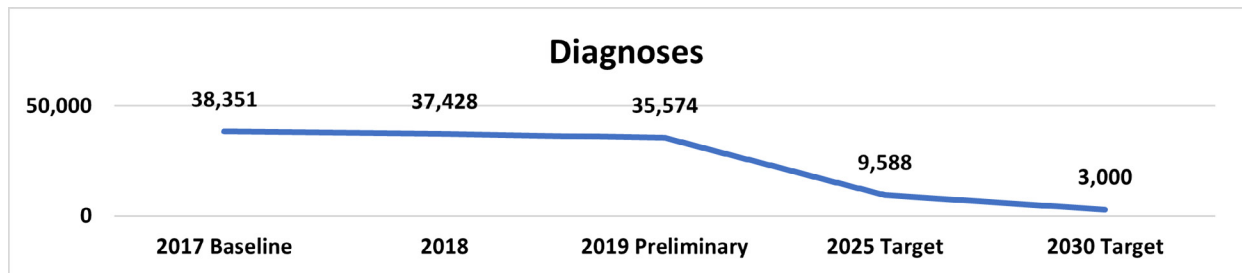
“Incidence” is the estimated number of new HIV infections in a given year.



“Knowledge of Status” is the estimated percentage of people with HIV who have received an HIV diagnosis.



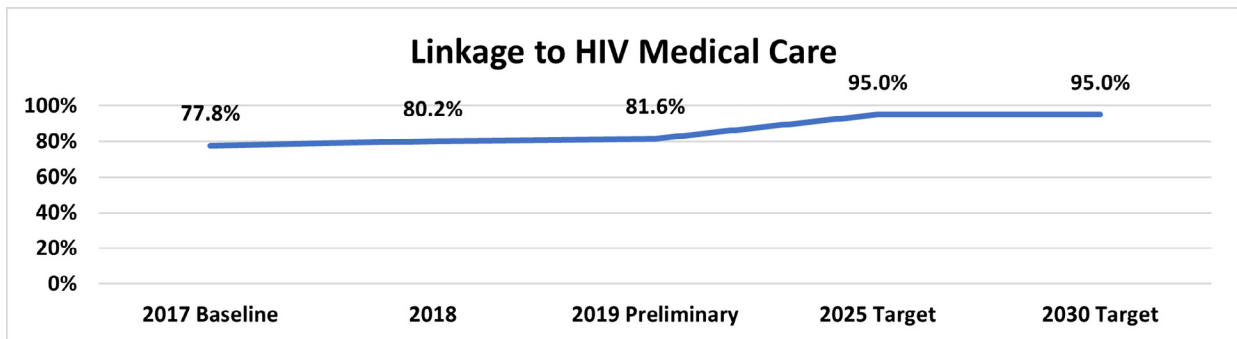
“Diagnoses” is the number of people with HIV infection diagnosed in a given year confirmed by laboratory or clinical evidence.



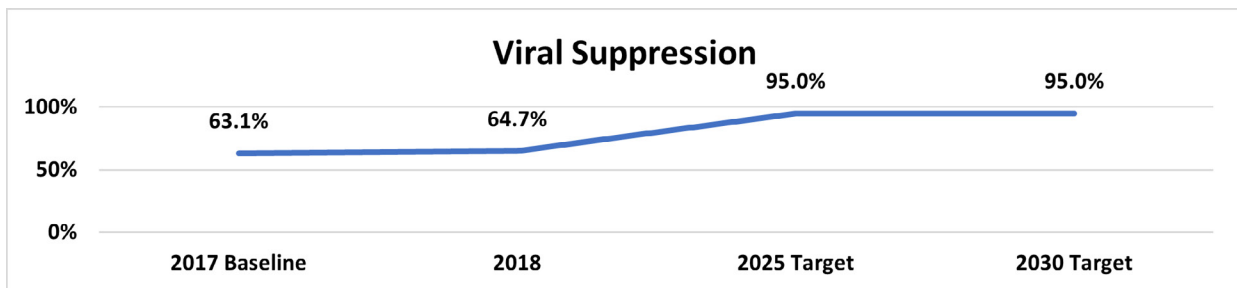
*Data for six EHE indicators are from <https://ahead.hiv.gov/data>.



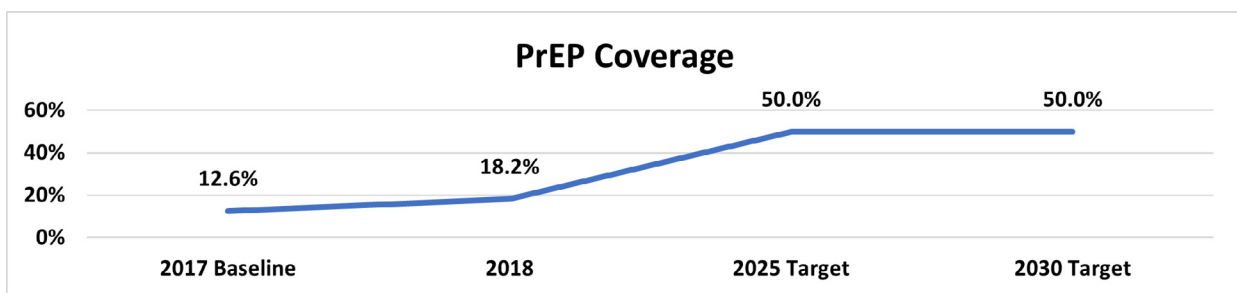
“Linkage to HIV Medical Care” is the percentage of people with HIV diagnosed in a given year who received medical care for their HIV infection within one month of diagnosis.



“Viral Suppression” is the percentage of people with a diagnosed HIV infection in a given year who have an amount of HIV that is less than 200 copies per milliliter of blood.



“PrEP Coverage” is the estimated percentage of individuals with indications for pre-exposure prophylaxis (PrEP) classified as having been prescribed PrEP.





Appendix 2: NIH Institutes, Centers, and Offices Acronyms

Acronym	Full Name
<i>Institutes</i>	
NCI	National Cancer Institute
NEI	National Eye Institute
NHGRI	National Human Genome Research Institute
NHLBI	National Heart, Lung, and Blood Institute
NIA	National Institute on Aging
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIAID	National Institute of Allergy and Infectious Diseases
NIAMS	National Institute of Arthritis and Musculoskeletal and Skin Diseases
NIBIB	National Institute of Biomedical Imaging and Bioengineering
NICHD	National Institute of Child Health and Human Development
NIDCD	National Institute of Deafness and Other Communication Disorders
NIDCR	National Institute of Dental and Craniofacial Research
NIDA	National Institute on Drug Abuse
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases
NIEHS	National Institute of Environmental Health Sciences
NIGMS	National Institute of General Medical Sciences
NIMH	National Institute of Mental Health
NIMHD	National Institute on Minority Health and Health Disparities
NINDS	National Institute of Neurological Disorders and Stroke
NINR	National Institute of Nursing Research
NLM	National Library of Medicine
<i>Centers</i>	
CC	Clinical Center
CIT	Center for Information Technology
FIC	Fogarty International Center
NCATS	National Center for Advancing Translational Sciences
NCCIH	National Center for Complementary and Integrative Health



Acronym

Full Name

Offices

OD	Office of the Director
OAMC	Office of Administrative Management and Communications
OAR	Office of AIDS Research
OBSSR	Office of Behavioral and Social Sciences Research
ODP	Office of Disease Prevention
ODS	Office of Dietary Supplements
ODSS	Office of Data Science Strategy
OEPR	Office of Evaluation, Performance, and Reporting
OPA	Office of Portfolio Analysis
ORIP	Office of Research Infrastructure Programs
ORWH	Office of Research on Women's Health
SGMRO	Sexual & Gender Minority Research Office
THRO	Tribal Health Research Office

Appendix 3: NIH Funding Mechanisms Referenced in This Report

Activity Code	Category	Title	Description
DP1	Institutional Training and Director Program Projects	NIH Director's Pioneer Award (NDPA)	Support for individuals who have the potential to make extraordinary contributions to medical research.
K01	Research Career Programs	Research Scientist Development Award — Research & Training	Support of a scientist, committed to research, in need of both advanced research training and additional experience.
K02	Research Career Programs	Research Scientist Development Award — Research	Support of a scientist, committed to research, in need of additional experience.
P30	Research Program Projects and Centers	Center Core Grants	Support for shared resources and facilities for categorical research by a number of investigators from different disciplines who provide a multidisciplinary approach to a joint research effort or from the same discipline who focus on a common research problem.
R01	Research Projects	Research Project	Support for a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing his or her specific interests and competencies.
R03	Research Projects	Small Research Grants	Support for research specifically limited in time and amount for studies in categorical program areas.
R21	Research Projects	Exploratory/ Developmental Grants	Support for the development of new research activities in categorical program areas. (Support generally is restricted in level of support and in time.)
R25	Research Projects	Education Projects	Support to develop and/or implement a program related to a category in one or more of the areas of education, information, training, technical assistance, coordination, or evaluation.
R33	Research Projects	Exploratory/ Developmental Grants Phase 2	Support for second phase of innovative exploratory and development research activities initiated under the R21 mechanism.
R34	Research Projects	Planning Grant	Support for the initial development of a clinical trial or research project, including the establishment of the research team; the development of tools for data management and oversight of the research; and the development of a trial design or experimental research designs and other essential elements of the study or project, such as the protocol, recruitment strategies, procedure manuals, and collection of feasibility data.

Activity Code	Category	Title	Description
R56	Research Projects	High-Priority, Short-Term Project Award	Support for limited interim research based on the merit of a pending R01 application while the applicant gathers additional data to revise a new or competing renewal application.
U01	Cooperative Agreements	Research Project — Cooperative Agreements	Support for a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing his or her specific interest and competencies.
U54	Cooperative Agreements	Specialized Center — Cooperative Agreements	Support for any part of the full range of research and development from very basic to clinical; may involve ancillary supportive activities, such as protracted patient care necessary to the primary research or R&D effort. The spectrum of activities comprises a multidisciplinary attack on a specific disease entity or biomedical problem area.
UG1	Cooperative Agreements	Clinical Research Cooperative Agreements — Single Project	Support for single project applications conducting clinical evaluation of various methods of therapy and/or prevention (in specific disease areas). Substantial federal programmatic staff involvement is intended to assist investigators during performance of the research activities, as defined in the terms and conditions of the award.
UG3	Cooperative Agreements	Phase 1 Exploratory/ Developmental Cooperative Agreement	Support for the first phase of exploratory and/or developmental research as part of a bi-phasic approach.
UH3	Cooperative Agreements	Exploratory/ Developmental Cooperative Agreement Phase 2	Support for the second phase of innovative exploratory and development research activities initiated under the UH2 mechanism.

Appendix 4: List of FY 2019 Direct, Related, and In Development Ending the HIV Epidemic (EHE) Projects

Category	Admin IC	Grant Number	Appl ID	Project Title
Direct	NIAID	5 P30 AI036219-25	9690559	Molecular Cluster Analysis, Understanding Its Use in the EHE in CLE, and Informing the Community
Direct	NIAID	5 P30 AI117970-05	9707731	A City-Wide Approach to HIV Pre-Exposure Prophylaxis (PrEP) Scale Up in Multiple High-Risk Communities in Washington, D.C.
Direct	NIAID	5 P30 AI117970-05v	9707731	Citywide Expansion of Rapid ART Initiation in the District of Columbia
Direct	NIAID	5 P30 AI117970-05	9707731	Puerto Rico-DC CFAR Community-Academic Partnership (CAP) for Comprehensive HIV Prevention and Response
Direct	NIAID	5 P30 AI064518-15	9733091	Getting to [NO]ne in New Orleans: Enhancing PrEP Uptake in Black Women to End the Epidemic
Direct	NIAID	5 P30 AI064518-15	9733091	PrEP-MECK: Identifying Community-Driven Approaches for Increasing PrEP Uptake, Adherence, and Persistence Among Black Men Who Have Sex with Men in Mecklenburg County, North Carolina
Direct	NIAID	5 P30 AI124414-04	9688453	Understanding Preferences for Engaging in PrEP: A Strategy for Reducing Racial/Ethnic Disparities in PrEP Uptake
Direct	NIAID	5 P30 AI124414-04	9688453	Strategies to Scale Up PrEP Availability in Medical Care Settings
Direct	NIAID	5 P30 AI50409-21	9752479	Reducing HIV Among Women Living in Atlanta
Direct	NIAID	2 P30 AI060354-16	9764987	EHRs to Scale Up PrEP in the South
Direct	NIAID	2 P30 AI060354-16	9764987	Mobile, Venue-Based PrEP for MSM
Direct	NIAID	5 P30 AI094189-08	9691866	The Baltimore Rapid Start Collaborative
Direct	NIAID	5 P30 AI094189-08	9691866	Linkage and Retention in Care Upon Release from the Maryland State Prison System
Direct	NIAID	5 P30 AI073961-13	9703862	Identifying Barriers and Building Strategies for Widespread Implementation of Rapid Linkage into Care and Antiretroviral Initiation of Individuals Newly Diagnosed with HIV in Miami Dade County

Category	Admin IC	Grant Number	Appl ID	Project Title
Direct	NIAID	5 P30 AI073961-13	9703862	Mobile Prevention Services to Respond to Expanding HIV Clusters in South Florida
Direct	NIAID	2 P30 AI045008-21	9764962	Implementation Barriers and Opportunities to Optimize HIV Testing and PrEP Delivery Among Young Men Who Have Sex with Men in Philadelphia
Direct	NIAID	5 P30 AI036214-25	9674207	TRANS (ending) the HIV Epidemic: Planning A Mobilized Community-Delivered Response with Transgender Individuals at High Risk for HIV Transmission
Direct	NIAID	5 P30 AI036214-25	9674207	Responding to HIV Molecular Transmission Clusters Comprising Transgender Women in Los Angeles County
Direct	NIAID	5 P30 AI036214-25	9674207	Proyecto Compadre: Community Engagement to Prevent and Treat HIV/AIDS Among Latino Men in San Diego
Direct	NIAID	5 P30 AI110527-05	9671852	A Step Toward Ending the HIV Epidemic in Memphis/Shelby County, TN: Improving Linkage to Care with a Test and Treat Program
Direct	NIAID	5 P30 AI117943-05	9675218	PrEP Persistence and Implementation in High Burden Areas in the Midwest
Direct	NIAID	5 P30 AI117943-05	9675218	Next-Generation Responses to HIV-Related Events in Ending the Epidemic Contexts
Direct	NIAID	5 P30 AI117943-05	9675218	Improving PrEP Uptake and Persistence Among Cis-Gender Women of Color
Direct	NIAID	2 P30 AI027767-31	9761778	Using Big Data to Estimate Undiagnosed HIV Infection and Inform Testing Interventions in Alabama
Direct	NIAID	2 P30 AI027767-31	9761778	PrOTECT AL: PrEP Optimization Through Enhanced Capture of Treatment
Direct	NIAID	5 P30 AI027763-28	9762561	Evaluating Gaps and Improving Immediate Linkage and ART Initiation in the Bay Area
Direct	NIAID	5 P30 AI027763-28	9762561	Enhancing Case-Based and Behavioral Surveillance for Key Populations in Alameda County
Direct	NIAID	5 P30 AI027763-28	9762561	Optimizing Novel Strategies to Increase Virologic Suppression Rates Among Unstably Housed Patients Living with HIV
Direct	NIAID	5 P30 AI050410-22	9753852	An Integrated Technology-Based “Status-Neutral” Approach to Engage YMSM/YTGW in the Prevention and Care Continuum in North and South Carolina

Category	Admin IC	Grant Number	Appl ID	Project Title
Direct	NIAID	5 P30 AI050410-22	9753852	Reaching African Americans to Reduce HIV Disparities in the Carolinas
Direct	NIAID	5 P30 AI027757-32	9693154	Developing an Intervention to Interrupt Transmission in Molecular HIV Clusters
Direct	NIAID	5 P30 AI027757-32	9693154	Integrated Real-Time Reengagement and Low Barrier Care to Improve HIV Treatment
Direct	NIAID	5 P30 AI027757-32	9693154	Harambee! Feasibility of Community-Based HIV Testing Implementation Strategies Among African Immigrants in King County, WA
Direct	NIAID	5 P30 AI117970-05	9707731	The Development of Responsive Health Department HIV Data to Action Strategies Through Community Engagement
Direct	NIAID	5 P30 AI50409-21	9752479	Exploring HIV and Mental Health Care Integration for Young Black MSM
Direct	NIAID	2 P30 AI060354-16	9764987	Enhancing U.S. HIV Prevention Models
Direct	NIAID	5 P30 AI073961-13	9703862	Mobile Delivery of PrEP and Medication Assisted Treatment at a Syringe Services Program—A Pilot Study
Direct	NIAID	5 P30 AI042853-21	9681419	Enhancing Retention in Care and Viral Suppression in Rural Southern Hotspots by Partnering with African American Faith Institutions
Direct	NIAID	5 P30 AI117943-05	9675218	Preparing for PrEP Scale-Out in Criminal Justice Settings
Direct	NIAID	2 P30 AI027767-31	9761778	Promoting PrEP Use Among African-American Adolescent Girls and Young Women (AGYW) in the Deep South At-Risk for HIV Client Perspectives
Direct	NIAID	5 P30 AI050410-22	9753852	Transforming the Carolinas: Preparing to End the Epidemic for Transgender People of Color in the Carolinas
Direct	NIAID	5 P30 AI042853-21	9681419	Using a Big-Data Approach to Characterize Disparities in the HIV Care Continuum and Viral Suppression Among Rural Communities in Arkansas
Direct	NIAID	5 P30 AI042853-21	9681419	Engaging Community Health Workers (CHW) to Improve Viral Suppression and Self-Management among PLWH in Shelby County, TN
Direct	NIAID	5 P30 AI027757-32	9693154	Optimizing Health Department Services to Increase Viral Suppression in Rural MS

Category	Admin IC	Grant Number	Appl ID	Project Title
Direct	NIAID	5 P30 AI124414-04	9688453	Enhancing a Universal Testing and Treatment Strategy in Jail to Promote Viral Load Suppression Among Justice-Involved People Living with HIV
Direct	NIAID	2 P30 AI060354-16	9764987	Intensive Case Management to EHE
Direct	NIAID	5 P30 AI036214-25	9674207	A Demonstration Project of Collaborative Clinic Based Data to Care
Direct	NIMH	P30 MH058107-23S1	9987147	Use of Technology-Based PrEP Services to Improve Uptake, Adherence, and Persistence Among YMSM and YTG Persons of Color
Direct	NIMH	P30 MH043520-31S3	9987044	Ending the Epidemic for Young Adults Living with HIV: Leveraging Ryan White Part A Services to Improve Health Outcomes
Direct	NIMH	P30 MH116867-01A1S1	9987782	FINISHING HIV: An HIV Protection, Diagnosis and Treatment Network for Latinos
Direct	NIMH	P30 MH062246-19S3	9988019	Increasing Effective PrEP Use by Young Black/Latino MSM and Transgender Women in Texas
Direct	NIMH	P30 MH062294-17S2	9987930	Knowledge, Attitudes and Practices of Key Groups about the Undetectable = Untransmissible Message (KAP on U=U)
Direct	NIMH	P30 MH097488-07S2	9987956	The U=U Campaign: Evaluation of Treatment as Prevention Messaging Among HIV-Affected Communities
Direct	NIMH	P30 MH097488-07S1	9987943	Using a Multi-Level Approach to Improve Viral Suppression for Youth and Young Adults with HIV
Direct	NIMH	P30 MH062294-17S1	9987902	A Study of Assisted HIV Self-Testing and Linkage to Care Among Partners of People Living with HIV (PLHIV) in San Juan, Puerto Rico
Direct	NIMH	P30 MH043520-31S2	9987054	Integrating Behavioral Health into HIV Prevention and Care: Transforming Practice to End the Epidemic
Direct	NIMH	P30 MH043520-31S1	9987067	Building a Coalition to Overcome Intersecting Stigmas and Improve HIV Prevention, Care Access, and Health Outcomes in New York City
Direct	NIMH	P30 MH116867-01A1S3	9987850	Five Point Initiative

Category	Admin IC	Grant Number	Appl ID	Project Title
Direct	NIMH	P30 MH062246-19S1	9987985	Community-Led Programming to Improve HIV Diagnosis, Prevention, and Treatment Among Transgender People in the San Francisco Bay Area
Direct	NIMH	P30 MH058107-23S3	9987177	Regional Response to HIV Eradication Efforts in Southern CA Counties
Direct	NIMH	P30 MH062246-19S2	9988002	Enhancing Partner Services for Newly-Diagnosed, Sexually Active, High Risk MSM
Direct	NIAID	5 P30 AI027757-32	9693154	PROTECT: Providing PrEP Through CBOs Using Telehealth and Commercial Pharmacies
Direct	NIMH	P30 MH062246-19S4	9988038	Culturally Tailoring a Sexual Health Services Model for Racial and Ethnic Minority Men Who Have Sex with Men
Direct	NIMH	P30 MH116867-01A1S2	9987789	Implementation of Telemedicine Test and Treat for On-Site Initiation of Antiretroviral Therapy at Miami's IDEA Exchange Syringe Service Program (SSP)
Related	NIAID	5 R01 AI120700-05	9637228	Accelerating PrEP Diffusion Through Network Change Agents
Related	NIAID	5 R21 AI138815-02	9638523	HIV Dynamic Modelling for Identification of Transmission Epicenters (HIV-DYNAMITE)
Related	NIAID	5 R01 AI136056-02	9640395	Next-Generation Phylodynamics-Targeted Partner Service Models for Combined HIV Prevention
Related	NIAID	5 R01 AI135970-02	9660529	Timely Monitoring and Response to HIV Transmission Networks for Intensified Prevention
Related	NIAID	1 R01 AI142690-01	9667832	Geographic Variability in Time from HIV Diagnosis to Viral Suppression in the Deep South: A Roadmap to Accelerated Treatment Initiation
Related	NIAID	5 R01 AI135992-02	9629957	Automation and Evaluation of Real-Time Transmission Network-Based HIV Prevention Services in New York City
Related	NIAID	5 R01 AI127203-03	9689397	Big Data Analytics of HIV Treatment Gaps in South Carolina: Identification and Prediction
Related	NIAID	5 R01 AI127232-04	9719739	Combined Phylogenetic and Epidemiological Analysis to Identify HIV Transmission Sources in Seattle, WA

Category	Admin IC	Grant Number	Appl ID	Project Title
Related	NIAID	1 R21 AI143386-01A1	9845032	Population-Level Effects of Increasing PrEP Uptake on HIV and Bacterial STIs
Related	NIAID	4 UH3 AI133669-03	9955491	American Cohort to Study HIV Acquisition Among Transgender Women in High Risk Areas
Related	NIAID	4 UH3 AI133676-03	9955492	Keeping it LITE: Exploring HIV Risk in Vulnerable Youth with Limited Interaction
Related	NIAID	1 R01 AI135946-01A1	9667655	Leveraging Public Health Genotyping Databases for Near Real-Time HIV Surveillance
Related	NIAID	1 K01 AI138853-01A1	9695542	Projecting the Epidemiologic and Economic Impact of HIV Prevention Efforts in the Context of Other Sexually Transmitted Infections
Related	NICHD	5 U19 HD089886-04	9706891	A Comprehensive Community-Based Strategy to Optimize the HIV Prevention and Treatment Continuum for Youth at HIV Risk, Acutely Infected and with Established HIV Infection
Related	NICHD	5 R42 HD088325-03	9789351	Mobile Augmented Screening Tool to Increase Adolescent HIV Testing and Linkage to Care
Related	NICHD	5 U19 HD089875-05	9751093	Scale It Up: Effectiveness-Implementation Research to Enhance HIV-Related Self-Management Among Youth
Related	NICHD	5 R01 HD089853-04	9701261	A Population-Based Online Study of the Transition of Young Adults with Perinatal HIV Infection to Adult Clinical Care
Related	NIAAA	5 U34 AA026219-03	9778700	Optimizing PrEP Utilization Among Alcohol and Other Drug (AOD) Using Women of Color
Related	NIAAA	5 R01 AA024065-04	9766168	Efficacy of Couples-Based HIV Prevention in Vulnerable Young Men
Related	NIMH	R01MH107297-05	9654776	PC4PrEP: Integrating PrEP into Primary Care
Related	NIMH	R01MH121256-01	9852507	Promoting Reductions in Intersectional Stigma to Improve HIV Testing and Prep Use Among Latino Sexual Minority Men
Related	NIMH	R34MH111342-03	9671459	A Mobile Intervention to Improve Uptake of PrEP for Southern Black MSM
Related	NIMH	R34MH115744-02	9747997	Telemedicine for PrEP Throughout Mississippi (Tele-PrEP-MS)
Related	NIMH	R01MH119956-01	9780975	PrEP-3D: An Integrated Pharmacy Digital Diary and Delivery Strategy to Increase PrEP Use Among MSM
Related	NIMH	K01MH116737-01A1	9694373	Adapting and Pilot Testing a Behavioral Intervention to Incorporate Advances in HIV Prevention for Black Young MSM in Alabama

Category	Admin IC	Grant Number	Appl ID	Project Title
Related	NIMH	R34MH119007-01	9695440	Advancing Pre-Exposure Prophylaxis (PrEP) Access in Pharmacies to Improve PrEP Uptake in Disadvantaged Areas
Related	NIMH	K01MH118943-01A1	9779087	A Multicomponent Intervention to Increase HIV Risk Perceptions and PrEP Initiation Among Black Men Who Have Sex with Men
Related	NIMH	R01MH116721-01A1	9692187	A Mobile Phone Intervention Using a Relational Human Talking Avatar to Promote Multiple Stages of the HIV Care Continuum in African American MSM
Related	NIMH	R34MH115798-02	9751972	Unified Approach to Address PrEP Cascade for BMSM
Related	NIMH	R01MH109409-04	9719893	Novel Stigma/Structural Interventions for Increasing HIV/STI Testing among BMSM
Related	NIMH	K23MH106386-06	9771536	TestED!: Applying Implementation Science to Improve an HIV Testing Strategy for Emergency Departments
Related	NIMH	R34MH121295-01	9853327	Optimizing Study Design to Test a Community-Level Intervention to Reduce Intersectional Stigma and Increase HIV Testing and Prevention Among African-American/Black MSM
Related	NIMH	R01MH116787-01A1	9694453	Regular HIV Testing and HIV Prevention Among At-Risk Latino Men in the Heartland
Related	NIMH	R01MH115835-02	9692054	Improving Prevention Systems to Reduce Disparities for High Priority Populations
Related	NIMH	R21MH116757-01A1	9659374	Biomedical Prevention Adherence Dynamics in a High Priority Population (TW)
Related	NIMH	R01MH112416-02	9669127	Impact of Representative Payee Services on ART Adherence Among Marginalized People Living with HIV/AIDS
Related	NIMH	R21MH113477-02	9561467	Perception of Repeated Negative HIV Test Results in Young Men Who Have Sex with Men
Related	NIMH	R01MH110289-04	9745390	A Randomized Trial to Prevent HIV Among Gay Couples
Related	NIMH	R34MH118044-01A1	9844657	PrEP Demonstration Project Among Women at Risk for HIV Infection
Related	NIMH	R34MH121139-01	9845770	PrEPmate 211: Developing a Mobile App to Support the Safe and Effective Use of On-Demand PrEP Among MSM in the U.S.
Related	NIMH	K01MH111388-03	9692360	An HIV Retention in Care Intervention for Black MSM in Baltimore with a Job Readiness Component

Category	Admin IC	Grant Number	Appl ID	Project Title
Related	NIMH	R01MH118043-01A1	9846760	Evaluation of Life-Steps to Enhance Adherence and Engagement in PrEP Care
Related	NIMH	R01MH114692-03	9698429	Making It Last: A Randomized, Controlled Trial of a Home Care System to Promote Persistence in PrEP Care
Related	NIMH	R34MH118178-01A1	9702443	A Pilot Peer Mentor Intervention That Trains Black MSM to Use and Promote Uptake of HIV/STI Self-Testing to Peers and Sex Partners
Related	NIMH	R01MH104086-05	9606088	Controlled Evaluation of the Adherence Readiness Program for ART Adherence
Related	NIMH	R01MH114891-02	9603762	Mobile Health Platform for Providing Real-Time Follow-Up After Home-Based HIV Self-Testing for High-Risk Men Who Have Sex with Men
Related	NIMH	R01MH106415-06	1E+07	HOPE Social Media Intervention for HIV Testing and Studying Social Networks
Related	NIMH	R34MH113413-03	9694735	Siempre Seguiré: A Pilot Intervention to Improve Coping with Discrimination and Adherence among HIV-Positive Latino MSM
Related	NIMH	R34MH113384-03	9772556	MySTYLE: Online Family-Based HIV Prevention for Non-Heterosexual Black Adolescent Males in the South
Related	NIMH	R01MH114657-03	9723214	Characterizing the HIV Pre-Exposure Prophylaxis Care Continuum for African American and Hispanic/Latino Men Who Have Sex with Men
Related	NIMH	R01MH115765-02	9742517	A Couples-Based Approach to HIV Prevention for Transgender Women and Their Male Partners
Related	NIMH	R01MH110056-05	9751390	Measuring and Monitoring Adherence to ART with Pill Ingestion Sensor System
Related	NIMH	R21 MH121187-01	9846704	PrEP Delivery Systems for Black Men Who Have Sex with Men (BMSM) Transitioning from Jail to Community Contexts
Related	NIMH	R01MH107371-05	9720927	PrEP Implementation with U.S. HIV-Serodiscordant Couples: Couples PrEP Demo Project
Related	NIMH	K23MH118969-01	9695808	Implementation Science to Strengthen the Integrated Care Continuum in Getting to Zero Contexts
Related	NIMH	R21MH118062-02	9781493	Transwomen, Sexual Partners, and HIV Risk

Category	Admin IC	Grant Number	Appl ID	Project Title
Related	NIMH	R34MH118058-02	9747383	Piloting a Sequential Multiple-Assignment Randomization Trial to Evaluate AllyQuest: An mHealth Intervention for HIV-Positive Young MSM to Optimize HIV Medication Adherence and Care Outcomes
Related	NIMH	R01MH118213-01	9767301	A Pragmatic Trial of Two Strategies for Implementing an Effective eHealth HIV Prevention Program
Related	NIMH	R34MH119962-01A1	9926639	Tailored Response to Psychiatric Comorbidity to Improve HIV Care Engagement in the United States (TRACE)
Related	NIMH	R03MH121226-01A1	9927458	Our Stories, Our Lives, Our Health: Refining an Automated Identification of HIV-Negative, PrEP-Eligible Women in the Emergency Department
Related	NIMH	R34MH114604-03	9730614	A Mobile Health Application for Engagement in Care Among Youth Living with HIV
Related	NIMH	R01MH118960-01A1	9780778	Neighborhoods, Networks, and the HIV Care Continuum Among HIV-Infected MSM in NYC
Related	NIMH	R01MH117960-02	9769153	A Multisite Randomized Trial of BattleViro: A Mobile Gaming App to Improve ART Adherence for Youth
Related	NIDA	5 R34DA045592-02	9660564	A Community-Clinic Collaboration to Improve Outcomes in HIV+ Substance Users Released from Jail
Related	NIDA	5 R01DA043122-04	9729657	Health and Justice: A Continuum of Care for HIV and SU for Justice-Involved Youth
Related	NIDA	5 R01DA033862-06	9452026	Effect of Structural Interventions on Substance Use and HIV/HCV Risk Among Rural PWUD
Related	NIDA	5 R01DA042805-03	9627969	Integrated Behavioral Activation and HIV Risk Reduction Counseling for MSM with Stimulant Abuse
Related	NIDA	5 R01DA040488-04	9656985	RCT of a Social-Network Oriented mHealth Based Intervention to Increase Access and Adherence to HCV Treatment and HIV Viral Suppression
Related	NIDA	5 R01DA041072-06	9694645	A Structural Intervention to Improve Substance Abuse Diagnosis and Treatment Practices in HIV Clinic Settings
Related	NIDA	5 R01DA041032-05	9695191	Optimizing HIV Counseling Testing and Referral Through an Adaptive Drug Use Intervention

Category	Admin IC	Grant Number	Appl ID	Project Title
Related	NIDA	5 R01DA043068-04	9732496	Unified Intervention to Impact HIV Care Continuum
Related	NIDA	5 R03DA044868-02	9739279	Longitudinal Impacts of Neighborhood Factors on HIV Care Continuum Outcomes Among Black PWID in Baltimore, MD
Related	NIDA	5 R01DA043089-04	9741666	Identifying and Engaging Urban HIV Infected and Uninfected YBMSM in Care
Related	NIDA	5 R01DA041747-04	9647451	Localized Economic Modeling to Optimize Public Health Strategies for HIV Treatment and Prevention
Related	NIDA	5 R01DA039934-05	9688508	HIV Intervention Models for Criminal Justice Involved Substance-Using Black MSM
Related	NIDA	5 K99DA046311-02	9683867	To Reach Unrestricted Services for Transgender Women (TRUST)
Related	NIDA	5 K01DA046234-02	9662806	Syringe Services Program Implementation in Rural Counties Vulnerable to HIV Outbreak
Related	NIDA	5 K01DA043412-03	9665710	Implementing Pre-Exposure Prophylaxis for HIV Prevention Among People Who Inject Drugs
Related	NIDA	5 R01DA040480-04	9667412	Using MOST to Optimize an HIV Care Continuum Intervention for Vulnerable Populations
Related	NIDA	5 R01DA041262-04	9694660	Examining Community-Based Effectiveness of a Substance Use and HIV Risk Reduction Intervention for Young Men of Color
Related	NIDA	5 R01DA041243-04	9695965	A Structural HIV Prevention Intervention Targeting High-Risk Women
Related	NIDA	5 R01DA045613-03	9695969	Intervention to Reduce Drug Use and HIV Incidence Among High PrEP Priority Partnered YMSM
Related	NIDA	1 R34DA046367-01A1	9700968	Adaptive Intervention Strategies to Optimize PrEP Clinical Evaluation and Uptake in Stimulant-Using Men
Related	NIDA	5 R01DA041065-05	9747842	Universal for All, Frequent for Some: HIV Testing in School-Based Health Centers
Related	NIDA	5 R01DA041071-05	9747856	Employing eSBI in a Community-Based HIV Testing Environment for At-Risk Youth
Related	NIDA	1 DP2DA049296-01	9822931	uTECH: Machine Learning for HIV Prevention Among Substance Using GBMSM
Related	NIDA	5 K08DA037825-05	9627963	A Multilevel Network Model of Drug Use and HIV Racial Disparities in Men

Category	Admin IC	Grant Number	Appl ID	Project Title
Related	NIDA	2 R37DA015612-16	9694532	Making Better Decisions: Policy Modeling for AIDS and Drug Abuse
Related	NIDA	5 R01DA039950-05	9710622	A Technology-Delivered Peer-to-Peer Support ART Adherence Intervention for HIV+ Adults
Related	NIDA	1 K99DA047890-01	9694971	Reducing HIV/Sexually Transmitted Infection (STI) Risk Behaviors Among Juvenile Offenders on Probation: A Mobile Mindfulness-Based Intervention
Related	NIDA	5 R34DA045563-02	9671381	Social Media HIV Prevention Intervention for Rural Women Drug Users
Related	NIDA	5 R34DA042648-03	9684608	A Brief Motivational Interviewing-Based Intervention to Improve HIV Pre-Exposure Prophylaxis Uptake Among Men Who Have Sex with Men
Related	NIDA	5 R34DA045621-03	9728942	Linkage to Community-Based HIV Pre-Exposure Prophylaxis Care Among at-Risk Women upon Release from Incarceration
Related	NIDA	5 R01DA045612-03	9763535	Theoretically Based Mobile App to Increase PrEP Uptake Among MSM
Related	NIDA	1 DP1DA048570-01	9763944	Digital, Community-Led, Social Action Initiative to Reduce Opioid Vulnerability and HIV/HCV in Rural Areas of the Midwest and Appalachia
Related	NIDA	5 K01DA041259-04	9676254	Social Networks, Social Resources, and HIV Transmission
Related	NIDA	1 R21DA049572-01	9841622	Utilizing Twitter to Identify and Recruit Young Black Men at High Risk of HIV Infection
Related	NIMH	R56MH121194-01	9980143	Monitoring Microaggressions and Adversities to Generate Interventions for Change (MMAGIC) for Black Women Living with HIV
Related	NIMH	R01MH117793-02	9649255	PROMISE - Program Refinements to Optimize Model Impact and Scalability Based on Evidence
Related	NIMH	R01MH109413-04	9614336	A Unified Intervention for Young Gay and Bisexual Men's Minority Stress, Mental Health, and HIV Risk
Related	NIDA	5 R01DA003574-36	9625114	Risk Factors for AIDS Among Drug Users: Getting Close to Zero
Related	NCCIH	5R34AT009170-03	9688923	Developing a Resilience Intervention for Older, HIV-Infected Women
Related	NIMH	K23MH111402-03	9748614	An Intervention to Increase Retention in Care Among HIV-Positive Black Men

Category	Admin IC	Grant Number	Appl ID	Project Title
Related	NIMH	R01MH118151-02	9755512	mLab App for Improving Uptake of Rapid HIV Self-Testing and Linking Youth to Care
Related	NIDA	5 R01DA045556-03	9744683	Building on Needle Exchange to Optimize HIV Prevention/Treatment
Related	NIDA	1 R01DA049843-01	9868652	Supporting Treatment Adherence for Resilience and Thriving (START): A mHealth Intervention to Improve ART Adherence for HIV-Positive Stimulant-Using Men
Related	NIDA	5 R01DA041067-05	9710625	Working with HIV Clinics to Adopt Addiction Treatments Using Implementation Facilitation (WHAT IF?)
Related	NIDA	5 K23DA044085-02	9688970	Engaging Young People Who Inject Drugs into HCV and HIV Care
Related	NIDA	5 R34DA044106-02	9757740	Y2Prevent: Preventing Drug Use and HIV Through Empowerment, Social Support and Mentorship
Related	NICHD	5 U19 HD089881-04	9706890	The UNC/Emory Center for Innovative Technology (iTech) Across the Prevention and Care Continuum
Related	NINR	5 R01NR017573-03	9709343	Improving the HIV PrEP Cascade Using an Intervention for Healthcare Providers
Related	NINR	5 R01NR017574-03	9710709	Increasing PrEP Use in High-Risk Social Networks of African American MSM in Underserved Low-Uptake Cities
Related	NINR	5 R01NR017334-03	9644090	A Randomized Controlled Trial of an Antiretroviral Treatment Adherence Intervention for HIV+ African Americans
Related	NINR	1 R01NR017837-01A1	9695481	Come As You Are: Assessing the Efficacy of a Nurse Case Management HIV Prevention and Care Intervention Among Homeless Youth
Related	NINR	3 R01NR017837-01A1S1	9932621	Come As You Are: Assessing the Efficacy of a Nurse Case Management HIV Prevention and Care Intervention Among Homeless Youth (supplement)
Related	NINR	5 R01NR010187-13	9696904	A Couples-Based Approach to Improving Engagement in HIV Care
Development	NIAAA	5 R34 AA024703-02	9696694	Brief Couples-Based Alcohol Intervention for HIV-Infected MSM and Their Primary Partners
Development	NIMH	K01MH115794-03	9706933	Developing a Trauma-Focused Intervention for Older Adults Living with HIV
Development	NIMH	R01MH114735-03	9745321	Testing a Biopsychosocial Model of Minority Stress and Health for HIV-Positive Men

Category	Admin IC	Grant Number	Appl ID	Project Title
Development	NIMH	K01MH113475-03	9749256	An Adaptive Treatment Intervention for Depression and Engagement in HIV Care Among Latinos Living with HIV
Development	NIMH	K23MH116814-02	9702862	Behavioral Health Determinants of Adherence in Women Living with HIV
Development	NIDA	5 R01DA042711-04	9684609	netCanvas: Development, Hardening, and Dissemination of a Software Suite for the Collection of Complex Network and Contextual Data in HIV and Drug Research
Development	NIDA	1 DP2DA049282-01	9821365	Novel, Adaptive Approaches to Predicting and Responding to Outbreaks of Overdose, HIV and HCV Among People Who Use Drugs
Development	NIMH	R01MH110057-05	9751389	A Novel Wireless Ingestible Sensor System for Measurement of Medication Adherence in HIV Treatment and Prevention
Development	NIMH	K23MH112417-03	9632843	Increasing Uptake of HIV Pre-Exposure Prophylaxis Among Young, Black MSM in the South
Development	NIMH	K01MH118073-01A1	9776797	Improving the HIV Care Continuum for Youth in the Deep South Through Mobile Health Technology
Development	NIMH	R01MH114753-02	9625656	Transgender Youth and PrEP: PK, Safety, Uptake and Adherence
Development	NIMH	K01MH115785-02	9767287	Developing Tailored Delivery and Adherence Interventions for Use of Long-Acting Biomedical HIV Prevention Strategies by Transgender Women
Development	NIDA	5 K08DA045575-02	9653989	Understanding and Reducing HIV Risk Behavior and Substance Use Among Self-Identified Bisexual Adolescent Men
Development	NIDA	5 R34DA046305-02	9663297	Development and Pilot Testing of a PrEP Communication Intervention and Integration into Existing HIV Testing Services for Female IV Drug Using Clients of a Needle Exchange
Development	NIDA	5 R34DA042974-03	9688515	Using Values to Enhance Inmates' Response to Substance Use and HIV Risk Feedback
Development	NIDA	5 R34DA045620-03	9719806	Interventions to Improve the HIV PrEP Cascade Among Methamphetamine Users
Development	NIDA	5 K23DA044874-02	9702786	Development of Ingestible Biosensors to Enhance PrEP Adherence in Substance Users

Category	Admin IC	Grant Number	Appl ID	Project Title
Development	NIDA	5 R34DA045619-03	9717214	Developing a PrEP Adherence Intervention Targeting At-Risk and Substance-Using Women
Development	NIBIB	5-U54-EB-007958-12	9782955	Center for Point-of-Care Technologies Research for Sexually Transmitted Diseases
Development	NIDA	5 R01DA043130-04	9744650	A Cluster RCT to Increase HIV Testing in Substance Use Treatment Programs
Development	NIMH	R34MH118122-01A1	9781039	Evaluating the Feasibility and Acceptability of PrEP-Talk: A PrEP Uptake Intervention for Young Black MSM with Their Close Friends
Development	NIDA	5 K24DA044858-02	9636544	Mentoring and Research in HIV Screening Implementation
Development	NIDA	5 K23DA043418-03	9695195	Understanding and Addressing Internalized Stigma and Shame as Barriers to Engagement in HIV Care Among Men Who Have Sex with Men Who Use Substances
Development	NIDA	5 R01DA044867-03	9728907	Testing an Integrated Bio-Behavioral Primary HIV Prevention Intervention Among High-Risk People Who Use Drugs
Development	NIDA	5 R01DA038185-05	9625771	Networks and Normative Influences on Sex and Drug-Related HIV Risk in Black Women
Development	NIDA	5 R00DA041494-04	9634044	Multilevel Approaches for Embracing Dyadic, Egocentric and Two-Mode Networks Which Address Substance Use Disorders and HIV Risk in Latina Seasonal Workers
Development	NIDA	2 R01DA027379-07	9868099	DAT 18-06 Feasibility and Acceptability of HIV, HCV, and Opioid Use Disorder Services in Syringe Service Programs
Development	NINR	3 R01NR010187-13S1	9931886	The Role of Relationship Stigma on HIV Outcomes Among Sexual and Gender Minority Couples
Development	NINR	5 R01NR017098-04	9724553	Adaptive Intervention Strategies Trial for Strengthening Adherence to Antiretroviral HIV Treatment Among Youth

Appendix 5: 57 Ending the HIV Epidemic (EHE) Jurisdictions and Number of FY 2019 EHE Projects


Jurisdiction	County*	State*	Number of Projects
AZ - Maricopa Co.	Maricopa County	Arizona	0
CA - Alameda Co.	Alameda County	California	1
CA - Los Angeles Co.	Los Angeles County	California	19
CA - Orange Co.	Orange County	California	2
CA - Riverside Co.	Riverside County	California	0
CA - Sacramento Co.	Sacramento County	California	1
CA - San Bernardino Co.	San Bernardino County	California	0
CA - San Diego Co.	San Diego County	California	7
CA - San Francisco Co.	San Francisco County	California	20
DC - Washington	N/A	District of Columbia	8
FL - Broward Co.	Broward County	Florida	2
FL - Duval Co.	Duval County	Florida	0
FL - Hillsborough Co.	Hillsborough County	Florida	1
FL - Miami-Dade Co.	Miami-Dade County	Florida	19
FL - Orange Co.	Orange County	Florida	1
FL - Palm Beach Co.	Palm Beach County	Florida	0
FL - Pinellas Co.	Pinellas County	Florida	0
GA - Cobb Co.	Cobb County	Georgia	0
GA - DeKalb Co.	DeKalb County	Georgia	9
GA - Fulton Co.	Fulton County	Georgia	5
GA - Gwinnett Co.	Gwinnett County	Georgia	0
IL - Cook Co.	Cook County	Illinois	24
IN - Marion Co.	Marion County	Indiana	1
LA - East Baton Rouge Parish	East Baton Rouge Parish	Louisiana	0
LA - Orleans Parish	Orleans Parish	Louisiana	3
MD - Baltimore City	Baltimore County	Maryland	18
MD - Montgomery Co.	Montgomery County	Maryland	0
MD - Prince George's Co.	Prince George's County	Maryland	1
MA - Suffolk Co.	Suffolk County	Massachusetts	24
MI - Wayne Co.	Wayne County	Michigan	0
NV - Clark Co.	Clark County	Nevada	0
NJ - Essex Co.	Essex County	New Jersey	0
NJ - Hudson Co.	Hudson County	New Jersey	0
NY - Bronx Co.	Bronx County	New York	8

Jurisdiction	County*	State*	Number of Projects
NY - Kings Co.	Kings County	New York	5
NY - New York Co.	New York County	New York	20
NY - Queens Co.	Queens County	New York	5
NC - Mecklenburg Co.	Mecklenburg County	North Carolina	4
OH - Cuyahoga Co.	Cuyahoga County	Ohio	3
OH - Franklin Co.	Franklin County	Ohio	1
OH - Hamilton Co.	Hamilton County	Ohio	2
PA - Philadelphia Co.	Philadelphia County	Pennsylvania	10
PR - San Juan	San Juan Municipio	Puerto Rico	3
TN - Shelby Co.	Shelby County	Tennessee	2
TX - Bexar Co.	Bexar County	Texas	1
TX - Dallas Co.	Dallas County	Texas	2
TX - Harris Co.	Harris County	Texas	5
TX - Tarrant Co.	Tarrant County	Texas	0
TX - Travis Co.	Travis County	Texas	0
WA - King Co.	King County	Washington	7
AL - state	N/A	Alabama	9
AR - state	N/A	Arkansas	1
KY - state	N/A	Kentucky	3
MS - state	N/A	Mississippi	12
MO - state	N/A	Missouri	3
OK - state	N/A	Oklahoma	0
SC - state	N/A	South Carolina	3

* Projects' locations identified by submitting Institutes and Centers.

Appendix 6: Members of the NIH HIV/AIDS Executive Committee Ending the HIV Epidemic Working Group

Name	ICO
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Ending
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HIV
Epidemic