New York State Department of Health

AIDS Institute Research Agenda

2022 – 2024

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Introduction

In 2014, New York State (NYS) became the first jurisdiction to launch a statewide initiative to end AIDS by reducing the number of persons living with HIV (PLWH) for the first time since effective HIV treatment became available (1). Core components of NYS's Ending the Epidemic (ETE) initiative include:

- identifying persons with HIV who are undiagnosed and linking them to care,
- retaining PLWH in care to maximize viral suppression, promote health, and prevent further transmission, and
- facilitating access to pre-exposure prophylaxis (PrEP) and nonoccupational post-exposure prophylaxis (PEP) for persons at high risk of acquiring HIV to prevent acquisition of HIV.

NYS's ETE initiative leverages evidence-based interventions including HIV testing to identify undiagnosed persons, improving viral suppression through quality-of-care and data-to-care approaches, and facilitating access to PrEP and PEP to prevent HIV acquisition (2). Through the ETE initiative, NYS has also expanded annual tracking of ETE metrics on a public-facing online dashboard to ensure transparent use of data (3). The NYS Department of Health AIDS Institute continues progress towards ETE while working to support the organization's broader mission to prevent new infections, improve the health and well-being of persons living with HIV, sexually transmitted infections (STI), and hepatitis C (HCV), and improve lesbian, gay, bisexual, and transgender (LGBT) health and drug user health through partnerships, program activities, research, and evaluation.

The AIDS Institute has a long and productive history in research and program evaluation, conducting several in-house program evaluations annually. In addition, there have been two rounds of ETE mini-grants completed to date, funding seven contracts each round. Mini-grant projects have focused on PrEP access, disparity reduction, and improving access to care. AIDS Institute staff has delivered thousands of presentations and published hundreds of publications in peer-reviewed journals, with over 60 peer-reviewed publications since 2015. Staff are also kept current with the literature through comprehensive literature reviews and annotated bibliographies of key topics and emerging issues.

In late 2019, the AIDS Institute formed the Center for Program Development, Implementation, Research and Evaluation (CPDIRE) to support and coordinate research and program evaluation at the AIDS Institute. CPDIRE is comprised organizationally of the Office of Program Evaluation and Research and the Center for Quality Improvement and Innovation. CPDIRE aims to evaluate existing programming, develop data-driven programming in support of ETE initiatives, support internal quality improvement, and disseminate best practices. To further a commitment to innovative, mission-driven research and better coordinate limited resources, the AIDS Institute began work to develop its first-ever Research Agenda, ensuring input from staff and community stakeholders. This agenda is comprised of research and program evaluation activities and prioritizes questions and knowledge gaps that will guide AIDS Institute research for the next three years. For the purposes of this agenda, "research questions" refers to both research and program evaluation questions.

The purpose of the AIDS Institute Research Agenda is to shape AIDS Institute mission-driven research, including:

- **AIDS Institute-led research,**
- **Commissioned research, and**
- **Collaborative research that the AIDS Institute has a vested interest in but does not lead**

Research Agenda Development

In January 2021, an internal Research Agenda Committee was formed, comprised of representatives from all major units from the AIDS Institute and the Research Committee Chair from the Center for Collaborative HIV Research in Practice and Policy (CCHRPP), of which the AIDS Institute is a primary partner institution. The Research Agenda Committee was tasked with identifying primary focus areas, stakeholders and methods of input, prioritization criteria and relative importance, collecting internal and external research questions, and prioritizing and refining the final questions.

Research Agenda focus areas align with the primary focus areas of the AIDS Institute: HIV, HCV, STI, drug user health, LGBT health, and included cross-cutting issues identified as AIDS Institute priorities such as health equity. Stakeholders included AIDS Institute staff, the research community, the HIV Advisory Body (HAB), and the AIDS Institute Programming Group. Research questions were submitted by internal and external stakeholders and subsequently prioritized according to the following five criteria: magnitude of impact, funding/resources, feasibility of conducting research, translatability, and the extent to which the question addresses an AIDS Institute priority area.

Prioritized questions were combined and refined as needed to ensure this Research Agenda includes questions most relevant to AIDS Institute priority populations in NYS, with emphases on evaluating existing programs the AIDS Institute funds and generating results the AIDS Institute can utilize to influence programs, policies, and practices. Additional details on the Research Agenda Committee, stakeholder engagement, prioritization criteria, and the development of the Research Agenda are included in Appendix B.

Research Priorities

The AIDS Institute research priorities detailed below align with those identified in the AIDS Institute Priorities 2021 – 2023 document. Additional priorities are included to reflect issues pertaining to multiple program areas within the AIDS Institute and emerging issues, including COVID-19. Research priorities will be added annually, as needed, to address emerging issues. Research questions are placed in the most applicable priority area but may also apply to other areas.

The following priority areas include those in which the AIDS Institute is looking to develop research and evaluation. Except where specifically proposed as a research topic, there is the expectation that cross-cutting issues of health equity, health disparities, and stigma will be incorporated into research whenever practicable. Specific questions submitted by internal and external stakeholders are included with notes indicating questions planned for internal implementation, work currently underway, and

work in which the AIDS Institute is seeking collaboration. Note that work underway presented here does not reflect a complete assessment of current research activities or standard program evaluation activities conducted by AIDS Institute staff in the context of their contract management or initiative programming. More details on the possible opportunities for future collaboration are listed in the section on "Operationalizing the AIDS Institute Research Agenda".

This Research Agenda does not preclude additional research activities within the AIDS Institute, but rather is intended to provide an internal and outward-facing source of current research priorities to guide AIDS Institute-funded and prioritized research through 2024. Research questions are subject to change based on results of pre-implementation literature reviews and other formative work.

While this Research Agenda is primarily intended to guide the AIDS Institute's mission-driven research and provide results that will be translatable to programs, policies, and practices, we believe research around each of these areas is important to support programming and policy efforts beyond NYS.

Overview of Research Agenda questions by AIDS Institute priority area

Priority 1: Improve HIV care outcomes, including timely HIV detection and higher rates of viral suppression. This priority includes a specific interest in HIV and aging.

- 17 prioritized for internal implementation
- 5 open to collaboration
- 1 currently underway

Priority 2: Increase access to PrEP and PEP.

- 6 prioritized for internal implementation
- 1 open to collaboration

Priority 3: Continue coordinated efforts to reduce new HIV and STI diagnoses in sexual minorities, including but not limited to lesbian, gay, bisexual, transgender, and queer or questioning populations.

- 3 prioritized for internal implementation
- 1 open to collaboration

Priority 4: Promote health equity and address health disparities and stigma.

- 4 prioritized for internal implementation
- 6 open to collaboration
- 1 currently underway

Priority 5: Eliminate HCV.

- 3 prioritized for internal implementation
- 3 open to collaboration

Priority 6: Promote sexual health through new and expanded STI initiatives, evaluation, research, education, and care and treatment options.

- 7 prioritized for internal implementation
- 3 open to collaboration

Priority 7: Promote interagency collaboration to improve drug user health, with a specific focus on expanding access to sterile syringes, increasing safe syringe disposal resources, and preventing overdose deaths including providing access points for buprenorphine.

- 9 prioritized for internal implementation
- 7 open to collaboration

Priority 8: Cross-cutting and emerging issues.

- 6 prioritized for internal implementation
- 2 open to collaboration
- 4 currently underway

Priority 1: Improve HIV care outcomes, including timely HIV detection and higher rates of viral suppression

A key approach to preventing HIV is to diagnose people newly infected as quickly and effectively as possible and immediately initiate antiretroviral therapy (ART). An estimated 80% of new HIV infections in the United States are transmitted by people who either do not know they have HIV or who have untreated HIV, according to the U.S. Centers for Disease Control and Prevention. Today, thousands of New Yorkers are not aware that they are living with HIV and are, therefore, unable to derive the personal and public health benefits of HIV care. Early initiation of antiretroviral (ARV) medication dramatically improves the health of people living with diagnosed HIV, including stopping disease progression from HIV to AIDS, and directly supports the "Undetectable Equals Untransmittable" (U=U) message that individuals with a sustained undetectable viral load cannot sexually transmit HIV.

Best practice standards of care for newly diagnosed persons and early initiation of ARVs are defined and supported by New York State's Quality of Care Program, Clinical Guidelines, and Clinical Education Initiative.

Research and evaluation questions for Priority Area 1

Prioritized for internal implementation

- In what ways have persons previously undiagnosed with HIV interacted with the healthcare system in the years leading up to their diagnosis? To what extent were missed opportunities for earlier diagnoses present?
- To what extent is immediate ART (also known as rapid ART) being realized in NYS and what are the barriers to, and facilitators of, immediate ART?
- What is the relationship between rapid initiation of ARVs for persons newly diagnosed with HIV and long-term retention in care, medication adherence, and viral load suppression?
- What is the scope and severity of concurrent diagnoses across NYS? Does the data show isolated cases in certain populations of individuals? Where are patients being diagnosed/entered into care?
- To what extent do Health Homes (care coordination/management programs) impact HIV prevention and treatment services/outcomes (i.e. PrEP utilization, STI screening/treatment, HIV testing, viral load suppression, undetectable status, medication adherence, linkages to care, etc.) for PLWH and high-risk/high-need populations?
- Is a detectable viral load at entry into prenatal care a predictor of viral control during pregnancy and postpartum and of long-term engagement in care?
- What is the impact of an incentive-based training module targeting active AIDS Drug Assistance Program (ADAP) participants on the importance of Uninsured Care Program recertification and U=U? The training module would be designed to educate individuals on the importance of complying with ADAP recertification requirements, the risks of not recertifying in a timely manner, and the importance of treatment and testing adherence. Financial incentives would be offered to new and existing ADAP participants who successfully complete the training module.
- Does case management enrollment have a direct impact on an enrolled individual's viral load suppression rate? Does case management enrollment facilitate linkage to and utilization of medical, mental health, and substance use services/treatment?
- To what extent can the use of digital platforms to conduct partner services be successful (have optimal partner services outcomes), under what circumstances (to locate partners, to interview

partners, to elicit and test partners), and for which populations (case assignment type, demographic and risk characteristics of cases)?
- What are the best practices of staff who achieve optimal partner services outcomes? To what extent can best practices be identified and to what extent are these practices transferable/scalable to other staff?
- What are the facilitators and barriers to the uptake of HIV testing of partners of pregnant persons in the antenatal setting?
- To what extent are home HIV testing programs successful at identifying new PLWH, and what are other latent benefits of home testing (e.g., education, raising awareness, reaching persons never tested before/not tested in the past year)? Who have home HIV testing programs been shown to reach and what percentage of a jurisdiction's newly identified persons are reachable through home HIV testing?
- What is the most effective way to leverage molecular and space time cluster information (and more broadly HIV surveillance data) to identify and reach high-risk individuals and achieve ETE goals?
- What are the barriers/challenges for healthcare providers to offer routine HIV testing?
- What is the effectiveness of the Learning Collaborative model practiced by the AIDS Institute and how can the AIDS Institute improve the body of evidence about Learning Collaborative implementation in general?

Open to collaboration

- What programmatic touchpoints, if any, impact sustained (or improved) viral load suppression among AIDS Institute-funded or directly provided services? This activity will characterize the viral load suppression status of AIDS Institute-connected clients over time in relation to programs accessed and services received.
- To what extent can NYS datasets be leveraged to identify sites that are underperforming with regard to NYS ETE metrics and to what extent can implementation science research questions be developed to understand how to reduce barriers and fortify facilitators for successful implementation of ETE priority activities?
- What are the best practices within primary care settings to improve viral suppression and reduce disparity gaps within AIDS Institute priority populations?

Priority 1a: Specific interest in HIV and aging

Over half of PLWH in NYS are 50 years of age and older. This percentage is expected to continue increasing due to declining HIV incidence and the success of ARVs. As a result, the AIDS Institute recognizes the need to focus research on improving HIV care outcomes among older adults and exploring the impact of aging-related issues on this population.

Research and evaluation questions specific to HIV and aging

Prioritized for internal implementation

- How can the comorbid disease burden of older HIV-positive persons best be quantified to answer questions such as:*
    - What effect does HIV disease and/or ART have on major risk factors for ill health among older adults?
    - How does disease burden vary by race and geography?

    - Do individuals infected at birth have more comorbidities than long-term survivors who have lived with HIV for similar lengths of time?
    - What are the effects of age at diagnosis on longevity?
- To what extent are Designated AIDS Centers adequately meeting the HIV care and other needs of an aging HIV population in NYS?

*This question is also open to collaboration

Open to collaboration

- To what extent do older adults with HIV/AIDS experience functional limitations or disabilities that compromise their self-care and independence?

Work underway

- As the population of PLWH ages, we need to be concerned with the special needs of the HIV-positive 50 and older community. In what ways does HIV status impact co-morbidities and health outcomes of PLWH 50 years of age and over?

Additional questions related to Priority Area 1 and 1a are welcome for collaboration or internal implementation

Priority 2: Increase access to PrEP and PEP

PrEP is the use of anti-HIV medications to keep HIV-negative people from becoming infected. PrEP for HIV prevention has become a cornerstone in the attainment of complete sexual health, alongside condoms and STI testing. Initiation and continued use of PrEP among individuals at risk for acquiring HIV is a core component in the NYS ETE initiative. Successful statewide implementation of PrEP is possible with expanded education, awareness, and collaboration among clinical providers, HIV testing programs, primary prevention programs, and support service providers. Routinely offering PrEP to anyone presenting with STI-related concerns is one way to bring comprehensive sexual health services to scale in NYS.

PEP following a non-occupational exposure offers a proven means of preventing HIV transmission after potential exposure has already occurred. Treatment for an exposure should be treated as a medical emergency. It is key that all emergency departments in NYS have a PEP policy and procedure which includes having ARV medications available onsite. NYS has implemented a PEP hotline for all counties outside of New York City. Consumers may call 844-PEP-4NOW for evaluation and immediate access to PEP. For consumers in NYC, the hotline number is 844-3-PEPNYC. Healthcare service providers should be aware that a person who seeks PEP should be given information on risk reduction measures, including PrEP.

Research and evaluation questions for Priority Area 2

Prioritized for internal implementation

- What are the best practices to target PrEP to appropriate groups in need, based on social media and other avenues?
- To what extent is access to PrEP an issue in NYS and in which regions/populations?

- To what extent are the demographics of persons served through the PrEP Patient Assistance Program consistent with the demographics of those most in need of PrEP services? How does this compare to persons on PrEP overall in NYS?
- What are the factors facilitating or impeding access to PrEP among NYS Medicaid members? This includes, but is not limited to: demographic characteristics, types of services accessed, co-morbidities – including STI diagnoses, managed care plan of enrollment, geographical location, etc.
- How can the known barriers to accessing PrEP among women be addressed in a way to effect programmatic change?
- To what extent can PrEP-focused ECHO-delivered sessions increase capacity of PrEP prescribers and increase PrEP prescriptions within AI-funded agency systems?

Open to collaboration

- What level of HIV PrEP provision is needed to effectively reduce new HIV acquisition in each priority population (i.e., among Black cisgender females, Black men who have sex with men (MSM), Hispanic females, persons who use drugs [PWUD], etc.)? What are barriers to PrEP uptake within each population?

Additional questions related to Priority Area 2 are welcome for collaboration or internal implementation

Priority 3: Continue coordinated efforts to reduce new HIV and STI diagnoses in sexual minorities, including but not limited to lesbian, gay, bisexual, transgender, and queer or questioning populations

Stigma, discrimination, and related circumstances prevent many transgender, gender non-conforming, and non-binary (TGNCNB) persons from accessing the same level of services and care as cisgender persons. These disparities are reflected in health outcomes at the population level. Promoting the health, safety, dignity, and human rights of TGNCNB communities is a vital part of the AIDS Institute mission.

Cisgender gay, bisexual, and other MSM are also disproportionately affected by HIV and other STIs. Both community- and clinic-based prevention efforts such as risk reduction interventions, medical care, PrEP, and PEP must be maintained and tailored to the unique needs of this important population group.

Research and evaluation questions for Priority Area 3

Prioritized for internal implementation

- What is the current role and potential for home testing programs and where can this fit in the portfolio of state funded/supported interventions?
- To what extent does stigma impact access to and utilization of health care among LGBT individuals, and what activities, programs, and/or interventions can be invoked to address this impact?
- To what extent can longitudinal data be used to identify persons at elevated risk for acquiring or transmitting HIV or STIs (i.e., repeat STI infections, being named as a partner multiple times, part of a rapidly growing transmission cluster, etc.)? To what extent can this information be used to develop effective interventions to reach these persons and to slow or prevent disease transmission in NYS?

Open to collaboration

- To what extent can programmatic interventions be developed or exist to address the impact of loneliness, depression, family stress, discrimination, and stigma on the access to HIV services for Latino MSM?

Additional questions related to Priority Area 3 are welcome for collaboration or internal implementation

Priority 4: Promote health equity and address health disparities and stigma

Black, Indigenous, and persons of color have lived experiences that make them vulnerable to STIs, HIV, and HCV. These include poverty, lack of access to health care, institutional racism, inequities in the built environment, and stigma. Trauma results from events or circumstances that are physically or emotionally harmful, and have lasting adverse effects on an individual's mental, physical, social, emotional, or spiritual well-being. Historical trauma is an event or set of events that happens to a group of people who share a specific identity. Within Black, Latinx, Native American, and Asian-Pacific Islander communities in particular, historical trauma plays important roles in determining physical and behavioral health outcomes and hindering access to effective medical care.

Proven, effective biomedical interventions (i.e., ARVs, PEP, and PrEP), health promotion messaging, and awareness campaigns that resonate with Black, Latinx, Native American, and Asian-Pacific Islander communities must be carefully tailored to the needs and experiences of each group. All populations must be prioritized in ETE activities so that no one is left behind.

Research and evaluation questions for Priority Area 4

Prioritized for internal implementation

- What are the facilitators, barriers, and identified needs to reduce health disparities among mothers and infants when HIV, STI, HCV, drug user health, and LGBT-related considerations are present?
- To what extent are AIDS Institute-funded providers able to address barriers caused by the social determinants of health for clients re-entering society from correctional settings?
- What role do social determinants of health play in health outcomes of interest to the AIDS Institute, including viral load suppression, HCV reinfection rates, STIs, etc.? Example questions include:
    - How does poverty interact with other characteristics of the individual or community (race, gender, age, insurance, etc.)?
    - What are the factors that contribute to ongoing disparities in health outcomes for Black PLWH compared to White PLWH?
    - To what extent are there differences in the range of healthcare services provided to individuals based on race?
    - To what extent is perception of stigma, discrimination, and racism a contributing factor in differences in health outcomes between Black, Hispanic, and White individuals?
- Can an intervention be developed (or modified from existing interventions) using multi-stakeholder engagement to address internalized stigma in PWUD? Can this intervention be piloted in harm reduction agencies/drug user health hubs to assess its effectiveness and its impact on client engagement in healthcare services and substance use treatment?

Open to collaboration

- Clarify the role that housing plays, independent of other social determinants of health, on HIV, STI, HCV, and drug user health-related outcomes. Are there particular housing models that can be shown to improve outcomes?
- To what extent is the lack of culturally-appropriate services a barrier to service access among PWUD? What are the best practices for reaching populations who are being disproportionally underserved?
- Do disparate populations have equitable access to syringe delivery systems and what are best strategies to reduce disparities in service utilization?
- What are the needs, risk and protective factors, and sources of health care and healing that affect the health and wellbeing of indigenous people affected by HIV/AIDS?
- There are disparities in HIV prevention programming, which result in reduced awareness and access to prevention tools among women. How can awareness and access to these tools be increased?
- To what extent do AIDS Institute-funded providers practice culturally-competent care? What is the impact of failure to do so on willingness to access care?

Work underway

- What measures can be taken to ensure health equity is prioritized and incorporated in all areas of the AIDS Institute portfolio?

Additional questions related to Priority Area 4 are welcome for collaboration or internal implementation

Priority 5: Eliminate HCV

HCV is curable in over 90% of people who get treated. With improved screening technologies, the implementation and expansion of the NYS HCV Testing Law, and effective treatments, more people will know their HCV status and seek HCV care and treatment. State funding supports the implementation of the HCV elimination plan. To ensure timely HCV diagnosis and access to care and treatment, expanded screening programs, patient navigation, linkage to care, and expanded care and treatment models are essential. The number of new HCV cases among young persons who inject drugs (PWID) living in non-urban areas continues to increase nationally and in NYS. HCV prevention strategies targeting young PWID are essential to control new HCV infections and eliminate HCV in NYS.

Research and evaluation questions for Priority Area 5

Prioritized for internal implementation

- What are healthcare providers' barriers and facilitators for hepatitis testing reporting?
- What is the accuracy of dried blood spot testing to assess HCV cure?
- What is the utility and feasibility of having disease intervention specialist workers and/or community-based organization staff conduct contact tracing and testing of contacts of prioritized PWID who are diagnosed with HCV?

Open to collaboration

- What is the comparative effectiveness of rapid testing versus blood draw for HCV diagnosis in women's health/gynecological care centers?
- What is the relationship/concordance of end of treatment viral load with sustained virologic response at four, eight, and 12 weeks? Is this relationship conditional, and if so, upon what factors?

- How can time from diagnosis to treatment initiation be shortened by utilizing interventions such as rapid initiation to treatment, removal of prior authorization, standing orders, pre-visit lab draws, etc.?

Additional questions related to Priority Area 5 are welcome for collaboration or internal implementation

Priority 6: Promote sexual health through new and expanded STI initiatives, evaluation, research, education, and care and treatment options

Reproductive and sexual health are key issues for adolescents and young adults. An estimated one in five individuals in the US has had an STI, with 26 million new infections in 2018 alone. Youth aged 15-24 account for half of new infections.

STIs other than HIV continue to increase. These increases demand a response that is both coordinated and scalable, recognizing that the concept of sexual health is the ability to embrace and enjoy one's sexuality throughout one's lifetime and represents sexual health equity and sex positivity free from stigma. The response must recognize sexual health factors, including intimacy, personal expression and identity, family planning, access to care and education, and prevention of disease. The interplay between HIV and other STIs is well established from a clinical and epidemiological perspective, with clear overlaps in the social determinants of health. The prevention of STIs is critical to sustain the progress made toward ending AIDS as an epidemic. Every case of mother-to-child transmission of syphilis is potentially preventable, and NYS must draw on its success with maternal HIV outcomes to prevent each one. Even though most STIs are treatable, the long-term effects of not being treated can result in irreversible internal damage, sterility, and even death. Fundamental is the notion that sexual health is health, and full integration of sexual health into routine health care must be prioritized.

Research and evaluation questions for Priority Area 6

Prioritized for internal implementation

- What are the best ways to reach NYS youth with safer sex products, services and education?
- What is the risk of HIV acquisition following an STI diagnosis? Priority populations include, but are not limited to Black and/or Hispanic females, Black and/or Hispanic men who have sex with men, persons who report using drugs, and persons who qualify for Medicaid.
- What is the awareness of, and attitudes towards, PrEP and PEP for STIs (syphilis, gonorrhea and/or chlamydia) among AIDS Institute-engaged consumers and AIDS Institute-funded providers?
- What are the key partner services performance levels for HIV and STIs necessary to achieve programmatic success (i.e., the number of partners needed to be interviewed per original patient necessary to stop disease progression, etc.)?
- Can a dual HIV/syphilis point of care test effectively improve the quality of care for pregnant persons, specifically by routinizing third trimester syphilis and HIV testing, and successfully averting congenital syphilis cases?
- To what extent has a status neutral model been adopted by HIV prevention and care providers? To the extent that it has, what impact, if any, has been realized? To what extent have AIDS Institute-funded providers received training in *How to Conduct a Sexual Risk Assessment*, to what extent do they conduct sexual risk assessments, and what is their comfort level and proficiency in doing so?

- To what extent is the new AIDS Institute funding opportunity related to comprehensive sexual health services effective at achieving intended program objectives?

Open to collaboration

- To what extent can STI and HIV testing be effectively promoted on college campuses and to what extent will doing so yield "high enough" positivity rates relative to other venues?
- What are the sexual health-related knowledge, attitudes, beliefs, behaviors, and characteristics of recipients of comprehensive sexual health education in NYS compared to those who did not receive comprehensive sexual health education? What are the implications, if any, for AIDS Institute practices?
- How effective is doxyPEP in preventing syphilis, chlamydia, and/or gonorrhea among MSM on HIV PrEP? What is the difference in STI incidence among HIV-negative MSM on PrEP who utilize doxyPEP compared to those receiving the standard of care? (Question will build on findings from research exploring the awareness of, and attitudes towards, PrEP and PEP for STIs)

Additional questions related to Priority Area 6 are welcome for collaboration or internal implementation

Priority 7: Promote interagency collaboration to improve drug user health, with a specific focus on expanding access to sterile syringes, increasing safe syringe disposal resources, and preventing overdose deaths including providing access points for buprenorphine

Opioid overdose remains one of the most significant issues impacting the health of New Yorkers. No area of the state or demographic is left untouched. In 2018 in NYS, there were nearly 3,000 opioid overdoses resulting in death, or 58 deaths per week. There were more than 8,200 outpatient emergency room visits—nearly 23 per day—for opioid overdoses, and nearly 3,100 hospitalizations.

Although HIV transmission attributable to injection drug use has decreased markedly over the past decade, there is mounting evidence that a new generation of young injectors is emerging. These trends make it imperative that NYS redouble its efforts to expand syringe access and educate people who use drugs to help prevent disease transmission.

Research and evaluation questions for Priority Area 7

Prioritized for internal implementation

- To what extent can a pilot be developed within drug user health hubs to provide supports for substance-using pregnant/parenting persons?
- Within low-threshold models of care for PWUD, what are characteristics that are most salient to care outcomes?
- How do drug testing and mandatory reporting/notifications to child welfare services, including Child Protective Services, via Child Abuse Prevention and Treatment Act guidelines contribute to barriers in drug user health services (i.e., naloxone access, medications for opioid use disorder, harm reduction programs, etc.) and congenital syphilis outcomes among pregnant and postpartum PWUD?
- To what extent is pharmacy access to buprenorphine a barrier in NYS, what are the reasons behind this, and what can be done to alleviate identified barriers to ensure equitable access in NYS?

- Can qualitative information about post-overdose and other experiences with substance use from PWUD be systematically collected and analyzed to gain a better understanding of trends in the current drug environment and common substance use practices?
- What are the patterns of stimulant use within the MSM community of color accessing services through AIDS Institute-funded contractors and to what extent are needs related to stimulant use being addressed?
- What are the impacts of increased access to take-home doses and delivery doses of methadone on the overdose rates among people who are clients of methadone programs?
- Will an expedited training on buprenorphine prescribing increase the number of clinicians who have an X-waiver across NYS? An "X-waiver" refers to the Drug Addiction Treatment Act (DATA 2000) "waiver" legislation that authorized the outpatient use of buprenorphine for the treatment of opioid use disorder, which is required for providers to prescribe buprenorphine.
- In what ways have persons who experience fatal overdoses interacted with the healthcare system in the years leading up to their death? To what extent were there missed opportunities for intervention?

Open to collaboration

- Can characteristics of individuals accessing services for substance use, including the social determinants of health, be used to risk-stratify individuals in terms of service continuation, overdose risk, mortality, etc.? Can these predictors be used to build targeted interventions to improve outcomes among identified at-risk individuals?
- What is the incidence of serious injection-related infections (e.g. endocarditis, osteomyelitis) in PWUD in New York, and what are the patterns of treatment, downstream health outcomes, and economic impact of these conditions?
- To what extent can syringe access be increased in NYS, particularly in low syringe exchange program access areas, through purposeful partnerships and the expansion of second-tier syringe exchange programming?
- Best practices around delivery of harm reduction services for PWUD are generally known. To what extent are AIDS Institute-funded harm reduction providers implementing these services?
- How can take-home drug checking/testing kits be effectively used through syringe exchange programs/drug user health hubs to reduce the risk of overdose for PWUD by providing timely information about the contents and combinations of substances prevalent in the illicit drug supply?
- Anecdotal and on-the-ground observations appear to indicate very high levels of posttraumatic stress disorder, burnout, and stress among staff of drug user health hubs and syringe exchange programs. To what extent can this be verified through more systematic research? To what extent can potential strategies, utilizing lessons learned from the HIV epidemic, be identified to systematically address this?
- To what extent can social media be used to support harm reduction practices among young PWUD in rural and suburban areas of upstate NY?

Additional questions related to Priority Area 7 are welcome for collaboration or internal implementation

Priority 8: Cross-cutting and Emerging Issues

The AIDS Institute Research Agenda prioritizes research activities which are intended to improve the quality and effectiveness of AIDS Institute-funded programs and services. In addition, the AIDS Institute supports the use of data-driven decision making in the development of new programs. Cross-cutting research activities are intended to focus on evaluating programs and services across multiple AIDS Institute program areas.

COVID-19 is one such cross-cutting topic which emerged as a public health issue in the United States in early 2020 and has been identified as the 8th priority area in the AIDS Institute Priorities 2021 – 2023. The COVID-19 pandemic has had a significant impact on the availability and utilization of HIV prevention and care services in NYS and the nation, and has affected several core ETE metrics. The full impact of COVID-19 on services and metrics will not be understood for some time. It is fortunate that NYS met one of its most critical ETE milestones in 2019 prior to the COVID-19 pandemic: estimated HIV incidence fell below HIV mortality for the first time, resulting in the first ever decrease in HIV prevalence in NYS. We will continue to monitor the impact of COVID-19 on our efforts and focus on goals that allow our funded agencies to recover and work within ongoing state fiscal realities.

Research and evaluation questions related to Cross-cutting and Emerging Issues

Prioritized for internal implementation

- Can COVID-19 and/or flu testing be leveraged to provide HIV testing in emergency rooms to identify acute HIV infections?
- Can HIV service providers be leveraged to increase COVID-19 vaccination rates for people at risk for or diagnosed with HIV?
- What is the potential impact of the shift to Medicaid pharmaceutical carve-out on access to HIV therapy, HCV therapy, and medications for opioid use disorder?
- How can the AIDS Institute leverage current efforts to link datasets across and outside of the AIDS Institute and answer important research and evaluation questions, including the specific questions proposed in this Agenda?
- To what extent are the new AIDS Institute funding opportunities effective at achieving intended program objectives?
- How has telehealth impacted care delivery, medication adherence, and disease prevention among priority populations across AIDS Institute program areas during and after the COVID-19 pandemic? Has the impact been conditional on key populations/characteristics (i.e., race, region, income, distance to appointment)?

  Specific examples for evaluation:
  1) To what extent does the prescribing of buprenorphine through telehealth increase medication uptake/adherence among the drug user health target population?

  2) To what extent has the implementation of telemedicine during the COVID-19 pandemic affected HIV care and chronic disease management for PLWH 50 years or older in NYS?

  3) What is the impact of telehealth on access to HCV treatment in settings serving people who use drugs (i.e., drug user health hubs, drug treatment program)?

Open to collaboration

- What is the impact of COVID-19 on the mental health needs of AIDS Institute priority populations? What is the impact on service availability?
- To what extent has the COVID-19 pandemic affected the public trust of public health entities? What is the potential impact of this on HIV and STI interventions?

Work underway

- What is the relationship between COVID-19 and rates of STIs?
- Based on recent literature, what has been the impact of COVID-19 on risk behaviors for HIV, STIs, and HCV?
- How much is the COVID-19 pandemic contributing to excess mortality (i.e., above expected levels) among PLWH? How much can be directly attributed to COVID-19 and how much is potentially attributable?
- What is the COVID-19 vaccination coverage rate among PLWH and how does this compare to persons not known to be living with HIV? How does vaccine efficacy among PLWH compare to that being realized among persons not known to be living with HIV?

Next Steps: Operationalizing the AIDS Institute Research Agenda

The AIDS Institute Research Agenda will be operationalized in subsequent phases and will include internal research led by the AIDS Institute, AIDS Institute-sponsored mini-grants, and purposeful collaborations with public health professionals and researchers. As the AIDS Institute moves to execute this Research Agenda, we are committed to the equitable inclusion of all groups in our research. Proposals for external collaboration, including mini-grants, should specify how they address specific populations and justify exclusions of populations. The timeline for anticipated implementation of research questions by fiscal year is listed in Appendix C. This timeline represents initial targets which are subject to change based on resource availability. Each internally focused and AI-commissioned effort is expected to be preceded by a literature review, which will guide adjustments to the research question as needed based on current evidence.

Internally focused efforts

Research led by AIDS Institute programs are indicated under each research priority area above. CPDIRE will work with relevant programs within the AIDS Institute to determine timing of research and provide support as needed.

AIDS Institute-sponsored mini-grants

Solicitations of interest are planned to fund two cycles of one-year mini-grants designed to address research the AIDS Institute has prioritized for collaborative research, beginning in Spring 2022. Mini-grant topics of interest may include research denoted as open to collaborative research listed above.

Purposeful collaborations with researchers

In addition to commissioned mini-grants, the AIDS Institute will support requests from CCHRPP faculty and other external researchers on topics related to AIDS Institute programs, policies, and other activities within our scope of influence. The AIDS Institute also welcomes collaborations with researchers interested in conducting impactful and translatable research related to any of the research priority areas

listed above and questions that are not prioritized for solicitations of interest. The AIDS Institute will support access to priority populations and programs, as feasible, and is open to discussing external grant opportunities related to topics of interest.

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Appendix A: Acronyms and Abbreviations

ADAP	AIDS Drug Assistance Program
AIDS	Acquired immunodeficiency syndrome
ART	Antiretroviral therapy
ARV	Antiretroviral
CCHRPP	Center for Collaborative HIV Research in Practice and Policy
CPDIRE	Center for Program Development, Implementation, Research and Evaluation
DOCCS	Department of Corrections and Community Supervision
ETE	Ending the Epidemic
HAB	HIV Advisory Body
HCV	Hepatitis C
HIV	Human immunodeficiency virus
LGBT	Lesbian, gay, bisexual, and transgender
MSM	Men who have sex with men
NYS	New York State
OASAS	Office of Addiction Services and Supports
PEP	Post-exposure prophylaxis
PLWH	Persons living with HIV
PrEP	Pre-exposure prophylaxis
PWID	Persons who inject drugs
PWUD	Persons who use drugs
SPARCS	Statewide Planning and Research Cooperative System
STI	Sexually transmitted infection
TGNCNB	Transgender, gender non-conforming, and non-binary
U=U	Undetectable Equals Untransmittable

Appendix B: Research Agenda Development Process

Research Agenda Committee

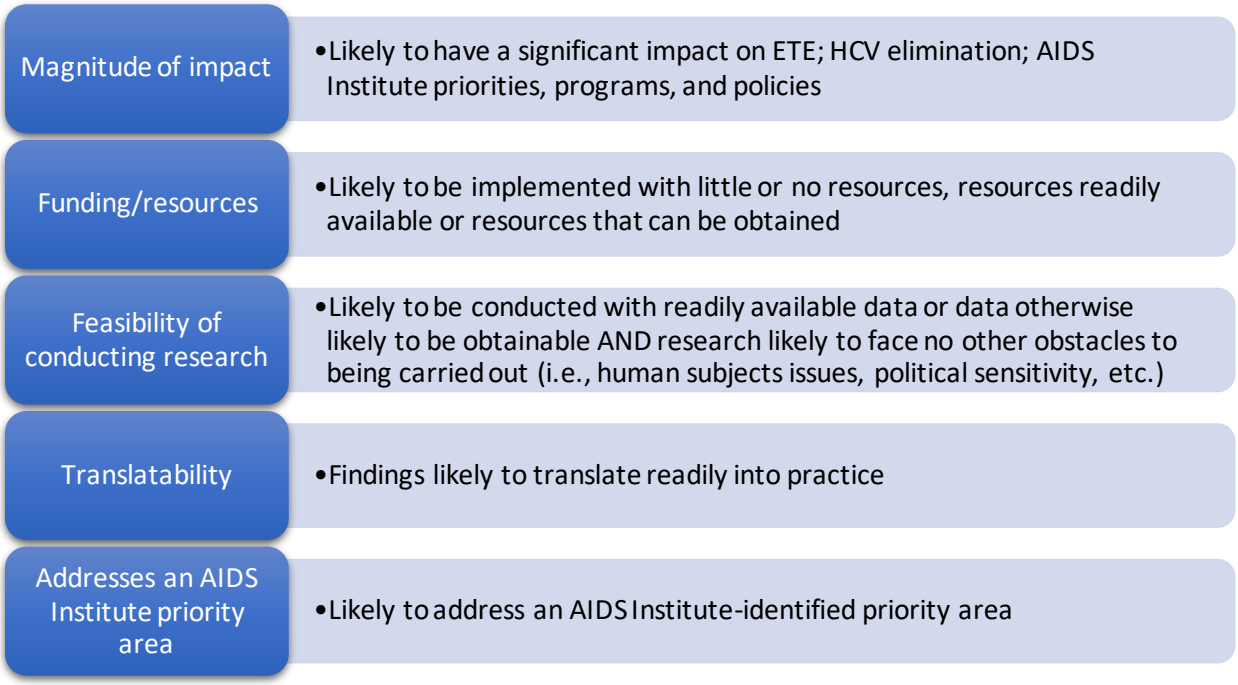
The development of the AIDS Institute Research Agenda was commissioned by the AIDS Institute Programming Group in the fall of 2020 and led by CPDIRE staff. Research Agenda Committee members included:

Robert Blake (Health Care Data Team, Division of HIV and Hepatitis Health Care)
Randall Collura (Division of Epidemiology, Evaluation and Partner Services)
Emily DeLorenzo (Office of Medicaid Policy and Health Care Financing)
Polly Faust (Office of Drug User Health)
Colleen Flanigan (Bureau of Hepatitis Health Care, Division of HIV and Hepatitis Health Care)
Ingrid Hahn (Office of Grants and Data Management)
Rachel Hart-Malloy (Office of Sexual Health and Epidemiology)
Lisa Haskin (Perinatal HIV Prevention Program, Division of HIV and Hepatitis Health Care)
Marcia Kindlon (Office of the Medical Director)
Kalvin Leveille (Office of Planning and Community Affairs)
Michelle Logan (Office of Drug User Health)
LaShawnda McClarin (Division of Epidemiology, Evaluation and Partner Services)
Wilson Miranda (Office of Sexual Health and Epidemiology)
Brenda Moncur (Office of Uninsured Care Programs)
Thomas O'Grady (CPDIRE)
Elham Pourtaher (Office of Program Evaluation and Research, CPDIRE)
Shane Roberts (Division of HIV/STI/HCV Prevention)
Eli Rosenberg (CCHRPP, New York State Department of Health Office of Public Health)
Elizabeth Rosenthal (CPDIRE)
Lisa Skill (Office of Drug User Health)
Clemens Steinbock (Center for Quality Improvement and Innovation, CPDIRE)
James Tesoriero (CPDIRE)
Julie Vara (Office of Uninsured Care Programs)
Alitasha Younger (Office of Medicaid Policy and Health Care Financing)

Planning process

The process to the develop the Research Agenda was based on methodologies used to develop the NYS ETE Blueprint recommendations (1), NYS Hepatitis C Elimination Plan (4), and other public health research agendas (5-14). Stakeholder engagement is critical to the AIDS Institute as a whole and is a component of all of the aforementioned research agenda processes. Research Agenda stakeholders included funders, AIDS Institute staff, the research community, the HAB, and the AIDS Institute Programming Group. Methods of stakeholder engagement varied by stakeholder group and included both direct and indirect engagement described in detail below.

Prioritization matrices were developed to ensure transparent decision criteria (15). Five prioritization criteria were identified and defined as follows:



Committee members weighted each criterion for relative importance. Each committee member completed an online survey rating each criterion against one another on a five-point Likert scale from "much less important" to "much more important." Survey responses were summarized, and relative importance was discussed to ensure consensus. Resulting criteria weights (ranked from most to least important) follow: magnitude of impact, 0.33; translatability, 0.22; addresses an AIDS Institute priority area, 0.22; feasibility of conducting research, 0.20; funding/resources, 0.02.

Stakeholder engagement

Funders were engaged indirectly through a review of recent requests for applications from the U.S. Centers for Disease Control and Prevention, the U.S. Health Resources and Services Administration, the National Institute on Drug Abuse, and Substance Abuse and Mental Health Services Administration to ensure research questions aligned with national research priorities. All other stakeholders were engaged directly via email correspondence and virtual meetings.

Initial research questions were developed by AIDS Institute staff ("internal stakeholders") and research community members ("external stakeholders"). Internal and external stakeholders were invited to provide proposed research questions along with supporting information relevant to the prioritization criteria. Specifically, stakeholders were asked to provide rationale and importance of each proposed research question, the degree to which the proposed question would address a gap in knowledge or information needed in the field of public health practice, and to identify any known data source(s) pertinent to each proposed research question. Following initial review, pre-screening, and initial refinement of proposed questions, questions were shared with the HAB to assess additional gaps in the proposals.

External stakeholder input

External stakeholder input was sought from researchers identified through CCHRPP and the ETE Metrics Committee ("ETE research experts"). Since both external research groups and internal program areas are largely HIV-focused, additional subject matter experts were identified by Research Agenda Committee members to provide questions related to HCV, STIs, and drug user health. Each external stakeholder was invited to complete an online survey, which included background information on the Research Agenda, definitions of research and program evaluation along with example questions of each, and the survey allowed for submission of the abovementioned supporting information for up to three proposed questions. ETE research experts who were also identified as subject matter experts (n=10) were invited to provide up to three questions related to ETE and up to three for each additional specific content area, as relevant. Input was requested from 229 individuals and organizations throughout NYS. Community-based organizations where multiple contacts were identified for expertise related to the same subject matter were asked to submit a maximum of three questions for the organization. A total of 82 questions were received from 39 external stakeholders. Following pre-screening, 75 externally-submitted questions remained.

Internal stakeholder input

Research Agenda Committee members were assigned to get input from each of their respective program areas, totaling 17 units across the AIDS Institute. Each unit was invited to submit up to three proposed questions and were advised to develop questions involving cross-unit collaboration or that otherwise go beyond typical program responsibilities and, thus, may require additional attention and resources. The Bureau of Hepatitis Health Care, Office of Drug User Health, and Office of Sexual Health and Epidemiology were each allowed to submit up to 10 questions consistent with the rationale described above. Committee members collected input as best suited to the needs of their respective program areas, including group brainstorming and question development; use of an online survey or other method for individual staff input; and prioritization or ranking to refine the number of proposed questions to the maximum requested. A total of 61 questions were submitted from the 17 units. Following pre-screening, 60 internal questions remained.

HIV Advisory Body Input

CPDIRE staff presented the Research Agenda process and proposed research questions to the HAB during their June 2021 meeting. HAB subcommittees were assigned questions from each focus area to review and were invited to propose up to three additional questions per focus area. The HAB was in support of the proposed research questions and submitted an additional six questions, which were subsequently pre-screened, refined, and prioritized as described below.

Pre-screening and prioritization

Broad pre-screening criteria were developed to ensure prioritization only occurred for questions relevant to the AIDS Institute and feasible to conduct within the term of the Research Agenda. Questions were screened initially by CPDIRE staff and questions deemed not to meet pre-screening criteria were reviewed for consensus with the Research Agenda Committee. Additional pre-prioritization refinement was conducted by CPDIRE staff and Committee members. Questions were edited to add clarity and specificity and to provide potential data sources where they were unknown to aide in prioritization. Similar questions were combined following discussion and Committee consensus, which resulted in 133 questions being eligible for prioritization.

Due to the number of proposed questions and prioritization criteria, questions were not prioritized relative to one another. However, questions were prioritized individually for each criterion on a scale from 0 to 100 (where 0 indicated a worse score for the criteria and 100 indicated a better score), to provide enough variability in scoring. Each Committee member was assigned to one of three subcommittees (HIV, HCV/drug user health, and STI/LGBT Health/health equity) based on research and subject matter expertise and provided comments and initial prioritization scores for questions corresponding to their subcommittee. AIDS Institute staff with subject matter expertise in HCV and health equity joined the subcommittees related to their area of expertise during the initial prioritization process.

There was great variability in the initial prioritization scores within subcommittees. Three discussion sessions were held with each subcommittee to discuss variability; refine questions to ensure actionable results to inform AIDS Institute programs, policies, and practices; allocate questions best suited to external collaboration or internal implementation; combine similar questions; and remove questions where the answer was known from previous research or where, upon further discussion, the research was deemed not to be informative to AIDS Institute programs, policies, and practices. Questions falling under multiple subcommittees' focus areas were discussed by each and discussion notes were shared back with each subcommittee. Where the subcommittee recommendations conflicted, CPDIRE staff proposed resolutions. A total of 88 questions remained following subcommittee discussions. These questions were mapped to the most relevant AIDS Institute priority area.

Of the 88 questions, 73 were prioritized for either internal implementation or possible collaborations. The remaining questions were identified as work underway (6) and questions in which the AIDS Institute has a vested interest in but will not lead or commission (9). The Research Agenda Committee worked with their respective program areas within the AIDS Institute to ensure internal support for the final questions, identify questions of interest to their area, identify anticipated timing for the research, and identify resources needed to conduct the research.

AIDS Institute Programming Group Prioritization

The final list of questions identified for prioritization was shared with the AIDS Institute Programming Group to ensure commitment for questions desired for internal implementation and determine available resources for internal and externally-focused questions.

Appendix C: Research Agenda Implementation Timeline

Priority Area*	Prioritized† research question	Anticipated start 2022	2023	2024
1	In what ways have persons previously undiagnosed with HIV interacted with the healthcare system in the years leading up to their diagnosis? To what extent were missed opportunities for earlier diagnoses present? ‡			X
1	To what extent is immediate ART (also known as rapid ART) being realized in NYS and what are the barriers to, and facilitators of, immediate ART? ‡			X
1	What is the relationship between rapid initiation of ARVs for persons newly diagnosed with HIV and long-term retention in care, medication adherence, and viral load suppression? ‡	X		
1	What is the scope and severity of concurrent diagnoses across NYS? Does the data show isolated cases in certain populations of individuals? Where are patients being diagnosed/entered into care? ‡		X	
1	To what extent do Health Homes (care coordination/management programs) impact HIV prevention and treatment services/outcomes (i.e. PrEP utilization, STI screening/treatment, HIV testing, viral load suppression, undetectable status, medication adherence, linkages to care, etc.) for PLWH and high-risk/high-need populations? ‡		X	
1	Is a detectable viral load at entry into prenatal care a predictor of viral control during pregnancy and postpartum and of long-term engagement in care? ‡	X		
1	What is the impact of an incentive-based training module targeting active AIDS Drug Assistance Program (ADAP) participants on the importance of Uninsured Care Program recertification and U=U? ‡		X	
1	Does case management enrollment have a direct impact on an enrolled individual's viral load suppression rate? Does case management enrollment facilitate linkage to and utilization of medical, mental health, and substance use services/treatment? ‡			X
1	To what extent can the use of digital platforms to conduct partner services be successful (has optimal partner services outcomes), under what circumstances (to locate partners, to interview partners, to elicit and test partners), and for which populations (case assignment type, demographic and risk characteristics of cases)? ‡		X	
1	What are the best practices of staff who achieve optimal partner services outcomes? To what extent can best practices be identified and to what extent are these practices transferable/scalable to other staff? ‡		X	
1	What are the facilitators and barriers to the uptake of HIV testing of partners of pregnant persons in the antenatal setting? ‡			X
1	To what extent are home HIV testing programs successful at identifying new PLWH, and what are other latent benefits of home testing (e.g., education, raising awareness, reaching persons never tested	X		

	before/not tested in the past year)? Who have home HIV testing programs been shown to reach and what percentage of a jurisdiction's newly identified persons are reachable through home HIV testing? ‡			
1	What is the most effective way to leverage molecular and space time cluster information (and more broadly HIV surveillance data) to identify and reach high-risk individuals and achieve ETE goals? ‡			X
1	What are the barriers/challenges for healthcare providers to offer routine HIV testing? ‡		X	
1	What is the effectiveness of the Learning Collaborative model practiced by the AIDS Institute and how can the AIDS Institute improve the body of evidence about Learning Collaborative implementation in general? ‡	X		
1	What are the best practices within primary care settings to improve viral suppression and reduce disparity gaps within prioritized populations? §	X		
1a	How can the comorbid disease burden of older HIV-positive persons best be quantified? ‡		X	
1a	To what extent are Designated AIDS Centers adequately meeting the HIV care and other needs of an aging HIV population in NYS? ‡		X	
1a	To what extent do older adults with HIV/AIDS experience functional limitations or disabilities that compromise their self-care and independence? §	X		
2	What are the best practices to target PrEP to appropriate groups in need, based on social media and other avenues? ‡	X		
2	To what extent is access to PrEP an issue in NYS and in which regions/populations? ‡			X
2	To what extent are the demographics of persons served through the PrEP Patient Assistance Program consistent with the demographics of those most in need of PrEP services? How does this compare to persons on PrEP overall in NYS? ‡	X		
2	What are the factors facilitating or impeding access to PrEP among NYS Medicaid members? ‡	X		
2	How can the known barriers to accessing PrEP among women be addressed in a way to effect programmatic change? ‡		X	
2	To what extent can controlled PrEP-focused ECHO-delivered sessions increase capacity of PrEP prescribers and increase PrEP prescriptions within AI-funded agency systems? ‡	X		
2	What level of HIV PrEP provision is needed to effectively reduce new HIV acquisition in each priority population? What are barriers to PrEP uptake within each population? §	X		
3	What is the current role and potential for home testing programs and where can this fit in the portfolio of state funded/supported interventions? ‡			X
3	To what extent does stigma impact access to and utilization of health care among LGBT individuals, and what activities, programs, and/or interventions can be invoked to address this impact? ‡		X	
3	To what extent can longitudinal data be used to identify persons at elevated risk for acquiring or transmitting HIV or STIs (i.e., repeat STI infections, being named as a partner multiple times, part of a rapidly			X

	growing transmission cluster, etc.)? To what extent can this information be used to develop effective interventions to reach these persons and to slow or prevent disease transmission in NYS? ‡			
3	To what extent can programmatic interventions be developed or exist to address the impact of loneliness, depression, family stress, discrimination, and stigma on the access to HIV services for Latino MSM? §	X		
4	What are the facilitators, barriers, and identified needs to reduce health disparities among mothers and infants when HIV, STI, HCV, drug user health, and LGBT-related considerations are present? ‡		X	
4	To what extent are AIDS Institute-funded providers able to address barriers caused by the social determinants of health for clients re-entering society from correctional settings? ‡			X
4	What role do social determinants of health play in health outcomes of interest to the AIDS Institute, including viral load suppression, HCV reinfection rates, STIs, etc.? ‡	X		
4	Can an intervention be developed (or modified from existing interventions) using multi-stakeholder engagement to address internalized stigma in PWUD? Can this intervention be piloted in harm reduction agencies/drug user health hubs to assess its effectiveness and its impact on client engagement in healthcare services and substance use treatment? ‡	X		
4	Do disparate populations have equitable access to syringe delivery systems and what are best strategies to reduce disparities in service utilization? §		X	
4	What are the needs, risk and protective factors, and sources of health care and healing that affect the health and wellbeing of indigenous people affected by HIV/AIDS? §	X		
4	There are disparities in HIV prevention programming, which result in reduced awareness and access to prevention tools among women. How can awareness and access to these tools be increased? §	X		
4	To what extent do AIDS Institute-funded providers practice culturally-competent care? What is the impact of failure to do so on willingness to access care? §	X		
5	What are healthcare providers' barriers and facilitators for hepatitis testing reporting? ‡		X	
5	What is the accuracy of dried blood spot testing to assess HCV cure? ‡	X		
5	What is the utility and feasibility of having disease intervention specialist workers and/or community-based organization staff conduct contact tracing and testing of contacts of prioritized PWID who are diagnosed with HCV? ‡			X
6	What are the best ways to reach NYS youth with safer sex products, services and education? ‡	X		
6	What is the risk of HIV acquisition following an STI diagnosis? Priority populations include, but are not limited to Black and/or Hispanic females, Black and/or Hispanic men who have sex with men, persons who report using drugs, and persons who qualify for Medicaid. ‡		X	
6	What is the awareness of, and attitudes towards, PrEP and PEP for STIs (syphilis, gonorrhea and/or chlamydia) among AIDS Institute-engaged consumers and AIDS Institute-funded providers? ‡	X		

6	What are the key partner services performance levels for HIV and STIs necessary to achieve programmatic success (i.e., the number of partners needed to be interviewed per original patient necessary to stop disease progression, etc.)? ‡		X	
6	Can a dual HIV/syphilis point of care test effectively improve the quality of care for pregnant persons, specifically by routinizing third trimester syphilis and HIV testing, and successfully averting congenital syphilis cases? ‡		X	
6	To what extent has a status neutral model been adopted by HIV prevention and care providers? To the extent that it has, what impact, if any, has been realized? To what extent have AIDS Institute-funded providers received training in *How to Conduct a Sexual Risk Assessment*, to what extent do they conduct sexual risk assessments, and what is their comfort level and proficiency in doing so? ‡	X		
6	To what extent is the new AIDS Institute funding opportunity related to comprehensive sexual health services effective at achieving intended program objectives? ‡	X		
6	To what extent can STI and HIV testing be effectively promoted on college campuses and to what extent will doing so yield "high enough" positivity rates relative to other venues? §	X		
6	What are the sexual health-related knowledge, attitudes, beliefs, behaviors, and characteristics of recipients of comprehensive sexual health education in NYS compared to those who did not receive comprehensive sexual health education? What are the implications, if any, for AI practices? §	X		
6	How effective is doxyPEP in preventing syphilis, chlamydia, and/or gonorrhea among MSM on HIV PrEP? What is the difference in STI incidence among HIV-negative MSM on PrEP who utilize doxyPEP compared to those receiving the standard of care? §		X	
7	To what extent can a pilot be developed within drug user health hubs to provide supports for substance-using pregnant/parenting persons? ‡	X		
7	Within low-threshold models of care for PWUD, what are characteristics that are most salient to care outcomes? ‡	X		
7	How do drug testing and mandatory reporting/notifications to child welfare services, including Child Protective Services, via Child Abuse Prevention and Treatment Act guidelines contribute to barriers in drug user health services (i.e., naloxone access, medications for opioid use disorder, harm reduction programs, etc.) and congenital syphilis outcomes among pregnant and postpartum PWUD? ‡	X		
7	To what extent is pharmacy access to buprenorphine a barrier in NYS, what are the reasons behind this, and what can be done to alleviate identified barriers to ensure equitable access in NYS? ‡	X		
7	Can qualitative information about post-overdose and other experiences with substance use from PWUD be systematically collected and analyzed to gain a better understanding of trends in the current drug environment and common substance use practices? ‡			X

7	What are the patterns of stimulant use within the MSM community of color accessing services through AIDS Institute-funded contractors and to what extent are needs related to stimulant use being addressed? ‡	X		
7	What are the impacts of increased access to take-home doses and delivery doses of methadone on the overdose rates among people who are clients of methadone programs? ‡	X		
7	Will an expedited training on buprenorphine prescribing increase the number of clinicians who have an X-waiver across NYS? ‡	X		
7	In what ways have persons who experience fatal overdoses interacted with the healthcare system in the years leading up to their death? To what extent were there missed opportunities for intervention? ‡	X		
7	What is the incidence of serious injection-related infections (e.g. endocarditis, osteomyelitis) in people who use drugs in New York, and what are the patterns of treatment, downstream health outcomes, and economic impact of these conditions? §	X		
7	To what extent can syringe access be increased in NYS, particularly in low syringe exchange program access areas, through purposeful partnerships and the expansion of second-tier syringe exchange programming? §	X		
7	Best practices around delivery of harm reduction services for PWUD are generally known. To what extent are AI-funded harm reduction providers implementing these services? §	X		
7	How can take-home drug checking/testing kits be effectively used through syringe exchange programs/ drug user health hubs to reduce the risk of overdose for PWUD by providing timely information about the contents and combinations of substances prevalent in the illicit drug supply? §	X		
7	Anecdotal and on-the-ground observations appear to indicate very high levels of posttraumatic stress disorder, burnout, and stress among staff of drug user health hubs and syringe exchange programs. To what extent can this be verified through more systematic research? To what extent can potential strategies, utilizing lessons learned from the HIV epidemic, be identified to systematically address this? §	X		
7	To what extent can social media be used to support harm reduction practices among young PWUD in rural and suburban areas of upstate NY? §	X		
8	Can COVID-19 and/or flu testing be leveraged to provide HIV testing in emergency rooms to identify acute HIV infections? ‡	X		
8	Can HIV service providers be leveraged to increase COVID-19 vaccination rates for people at risk for or diagnosed with HIV? ‡	X		
8	What is the potential impact of the shift to Medicaid pharmaceutical carve-out on access to HIV therapy, HCV therapy, and medications for opioid use disorder? ‡	X		
8	How can the AIDS Institute leverage current efforts to link datasets across and outside of the AIDS Institute and answer important research and evaluation questions, including the specific questions proposed in this Agenda? ‡			X

8	To what extent are the new AIDS Institute funding opportunities effective at achieving intended program objectives? ‡	X		
8	How has telehealth impacted care delivery, medication adherence, and disease prevention among priority populations across AIDS Institute program areas during and after the COVID-19 pandemic? Has the impact been conditional on key populations/characteristics (i.e., race, region, income, distance to appointment)? ‡	X		
8	To what extent has the COVID-19 pandemic impacted the public trust of public health entities? What is the potential impact of this on HIV and STI interventions? §	X		

*Priority 1: Improve HIV care outcomes, including timely HIV detection and higher rates of viral suppression; Priority 1a: HIV/aging; Priority 2: Increase access to PrEP and PEP; Priority 3: Continue coordinated efforts to reduce new HIV and STI diagnoses in sexual minorities, including but not limited to lesbian, gay, bisexual, transgender, and queer or questioning populations; Priority 4: Promote health equity and address health disparities and stigma; Priority 5: Eliminate HCV; Priority 6: Promote sexual health through new and expanded STI initiatives, evaluation, research, education, and care and treatment options; Priority 7: Promote interagency collaboration to improve drug user health, with a specific focus on expanding access to sterile syringes, increasing safe syringe disposal resources, and preventing overdose deaths including providing access points for buprenorphine; Priority 8: Cross-cutting and Emerging Issues.

† Questions which were not prioritized but are open to collaboration are not listed here. Some prioritized questions may be simplified in this table. Please see the respective Research Priorities for full proposed question. Research questions are subject to change based on results of pre-implementation literature reviews and other formative work.

‡ Question planned for internal focus.

§ Question planned for collaborations and may be included in subsequent mini-grant cycles if not funded in cycle denoted here.