Focused Strategies for Reimagining the HIV Workforce and Achieving the Goals of EHE

PACHA HIV Workforce Panel
March 15, 2022

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HIV Workforce Development as a Key Pillar for Ending the US HIV Epidemic by 2030

Ending the HIV Epidemic

The federal EHE initiative aims to end the HIV epidemic in the United States by 2030.

EHE relies on 4 key strategies to achieve the initiative's aims:

- Diagnose
- Protect
- Treat
- Respond

Workforce Development

A strengthened HIV workforce is needed to support **implementation**.

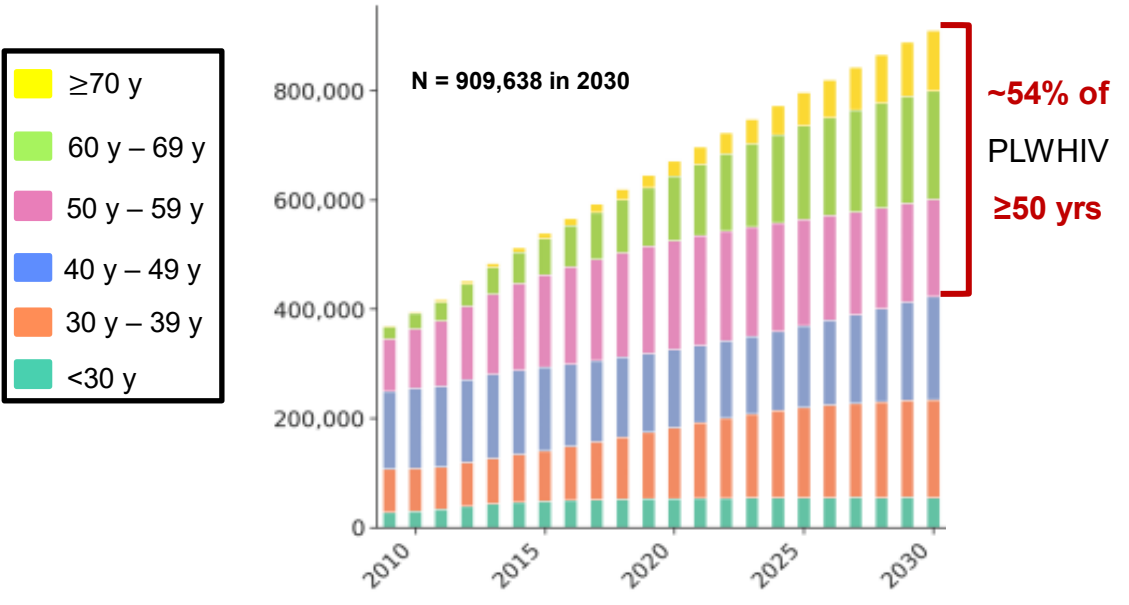
HIV Workforce Challenges: Scale, Reach, Effectiveness

Workforce Challenge #1: Scale of comprehensive HIV care delivery

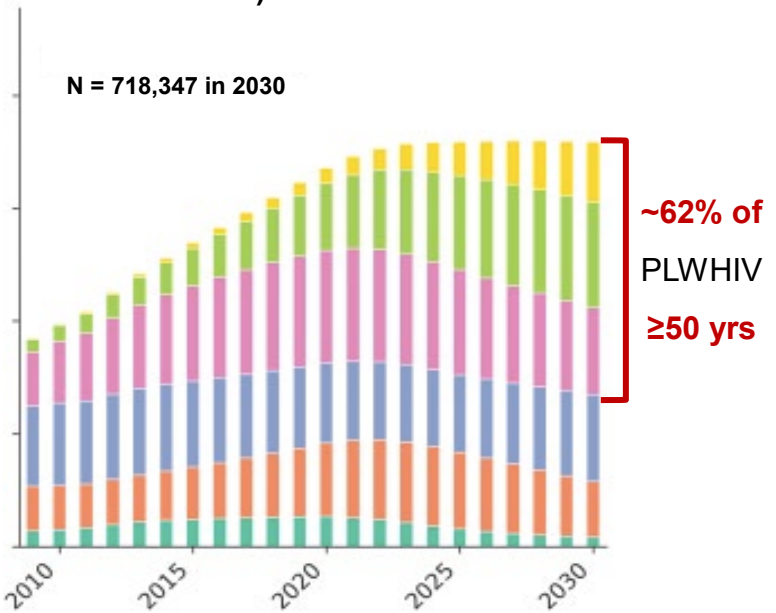
- The number of people receiving HIV treatment is growing
- The cohort of PLWHIV on treatment is rapidly aging

Workforce capacity for comprehensive HIV care at scale is needed

Projected number of PLWHIV on ART (Baseline scenario)



Projected number of PLWHIV on ART (If EHE goal of 75% infection reduction by 2025 is attained)



Source: Althoff KN et al. The shifting aging distribution of people with HIV using antiretroviral therapy in the United States. AIDS. 2022;36:459-471.

Limitations in HIV Workforce Capacity

Studies on HIV Workforce Supply and Demand:

HIV Specialist

Supply and Demand Projections from 2010 to 2015

HIV workforce supply was forecasted to decrease by **10%**, while demand was forecasted to increase by **14%**

	2010	2011	2012	2013	2014	2015
HIV Clinicians						
Total	4,937	4,823	4,724	4,625	4,527	4,429
HIV Visits Demanded						
Total	5,451,057	5,601,868	5,752,700	5,903,719	6,054,760	6,205,738

Clinical Infectious Diseases

MAJOR ARTICLE

HIV/AIDS

IDSA Infectious Diseases Society of America | hivma hiv medicine association | OXFORD

Qualifications, Demographics, Satisfaction, and Future Capacity of the HIV Care Provider Workforce in the United States

John Weiser,[1] Linda Beer,[1] Brady T. West,[2] Christopher C. Duke,[3] Garrett W. Gremel,[3] and Jacek Skarbinski[1]

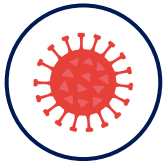
[1]Division of HIV/AIDS Prevention, Centers for Disease Control and Prevention, Atlanta, Georgia; [2]Survey Research Center, University of Michigan, and [3]Altarum Institute, Ann Arbor, Michigan

Care **capacity in the HIV workforce was estimated to increase by 65,000 patients by 2019**, while the number of people living with HIV in need of care was estimated to increase by **at least 100,000**.

Factors Limiting Workforce Capacity:

Aging HIV workforce

Insufficient trainees entering HIV specialties



Strain on the ID workforce due to COVID-19

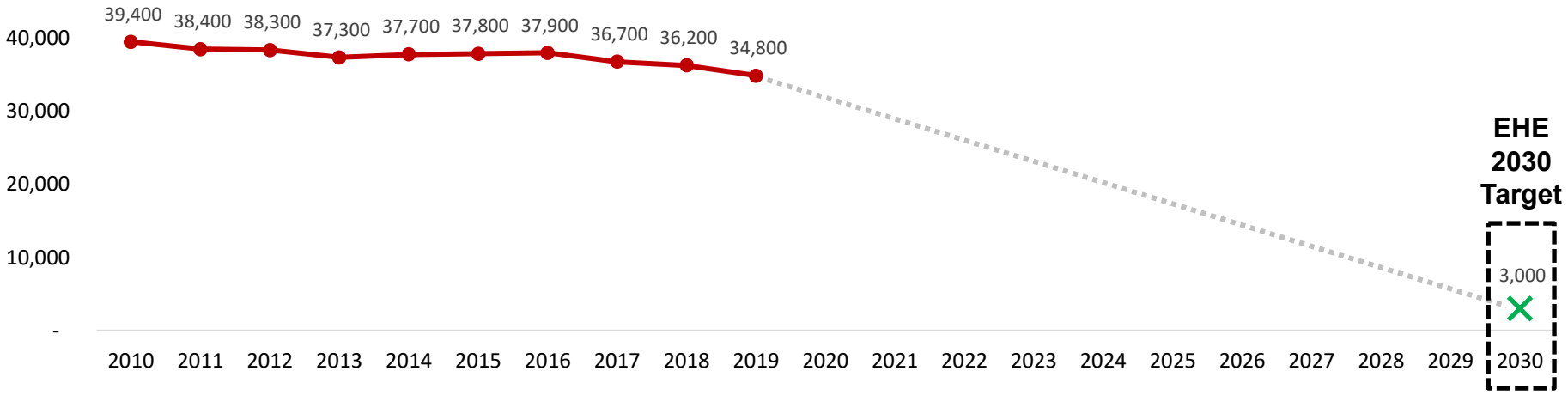
Source: Gilman et al. HIV Specialist, August 2016.; Weiser et al. CID. 2016;63(7):966-975.

Workforce Challenge #2: Reach of HIV prevention and treatment

- Effective tools for HIV prevention/treatment exist, but new infections have remained relatively stable
- Accelerated decreases in annual HIV infections are needed to attain EHE goals

Better reach of HIV services (testing, PrEP, treatment) among people living with or at risk of HIV is needed

Annual HIV Infections in the U.S., 2010-2019



Sources: HIV.gov https://www.hiv.gov/hiv-basics/overview/data-and-trends/statistics, CDC Atlas https://gis.cdc.gov/grasp/nchhstpatlas/charts.html

Workforce Challenge #3: Effectiveness of HIV prevention and treatment delivery systems

- Gaps and failures in the systems for delivery of effective HIV prevention and treatment remain too frequent
- E.g., high transmission HIV clusters represent "breakdowns" of existing HIV prevention and treatment systems

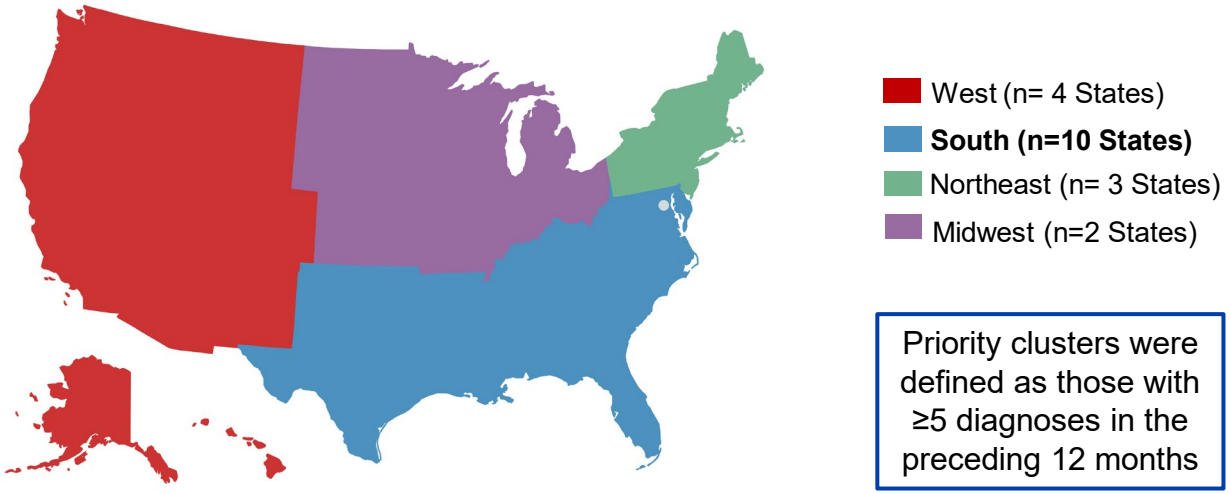
Increased effectiveness of HIV prevention and treatment delivery systems is needed

The CDC reported the identification of

136 high HIV transmission clusters

across 19 U.S. states from 2018-2019.

Molecular HIV Surveillance by Census Region, 2018-2019



Priority clusters were defined as those with ≥5 diagnoses in the preceding 12 months

Source: Oster AM, et al. Increasing capacity to detect clusters of rapid HIV transmission in varied populations—United States. Viruses. 2021 Apr;13(4):577.

HIV Workforce Challenges: COVID-19

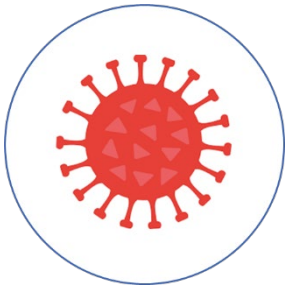
COVID-19 has shaped the HIV care landscape in multiple ways

1.
By Directly Impacting the HIV Workforce

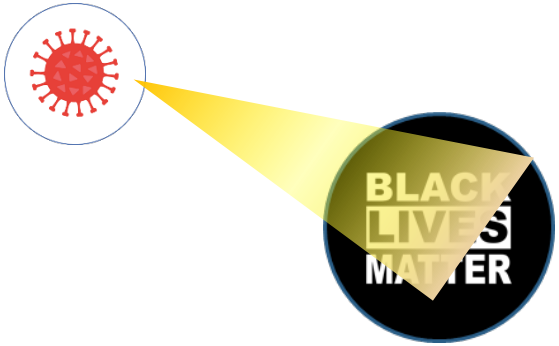
2.
By Exposing Chronic Inequities

3.
Through Synergies that Exacerbate HIV Outcomes

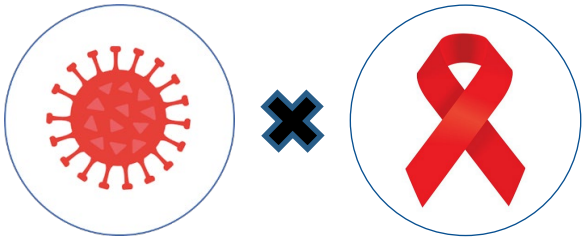
Three Case Examples:



The infectious disease specialty workforce represents the frontline of the COVID-19 response



Structural racism shaped the disproportionate impact of COVID-19 in communities historically impacted by the HIV epidemic



The COVID-19 pandemic has caused disruptions to traditional delivery models for HIV treatment and prevention services

Approaches for Addressing HIV Workforce Challenges

Traditional Approach

I.e.:

Increased investment in primarily existing models of HIV workforce development, prevention and care delivery

vs.

Reimagining the HIV Workforce

I.e.:

Adoption of new models for HIV workforce development that are designed to address gaps in scale, reach, and effectiveness of prevention and care delivery

5 Strategies for Reimagining the HIV Workforce

Broadening Definitions of the HIV Workforce

Adopting Multidisciplinary Team-Based Models for HIV Prevention and Care

Enabling Practice to the Highest Level of Training and Licensure

Adopting Decentralized and Differentiated Models for Service Delivery

Increasing Capacity to Mitigate the Social Determinants of Health

#1: Broadening Definitions of the HIV Workforce

Traditional Model for Defining the HIV Workforce

Singular focus on HIV specialty service providers

Infectious Disease Physicians who provide HIV care

Nurse Practitioners who provide HIV care

Physician Assistants who provide HIV care

Non-ID Physicians who provide HIV care

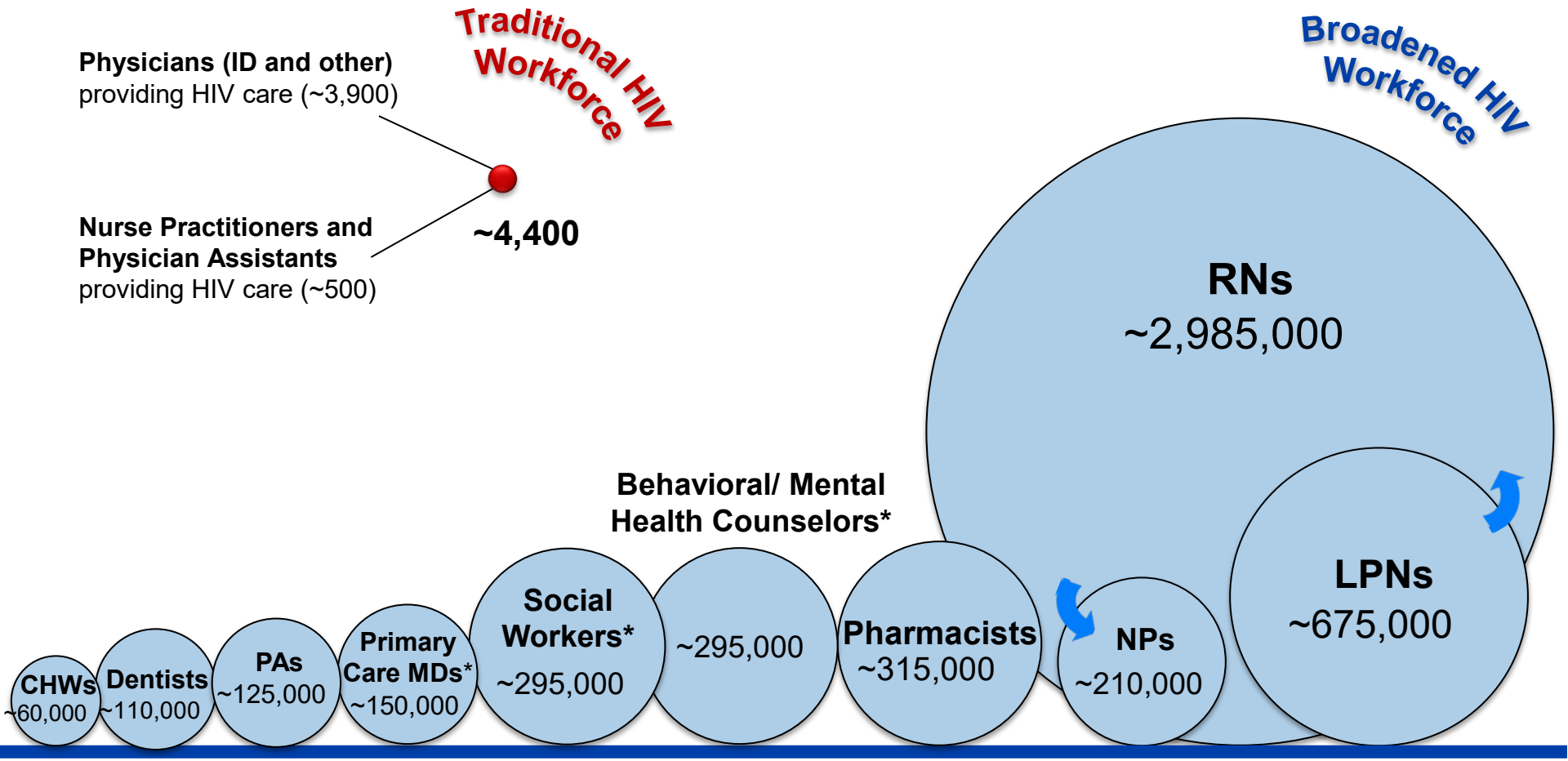
Reimagined Model for Defining the HIV Workforce

Non-HIV specialist practitioners involved in delivery of comprehensive health and social services to people at risk of and living with HIV

Primary Care Providers, RNs, LPNs, Pharmacists, Dentists, Social Workers, Behavioral/Mental Health Professionals, Community Health Workers, etc.

Making the Case for Expansion of the Traditional HIV Workforce

Relative Sizes of the Traditional HIV Workforce vs. the Available, Qualified Workforce



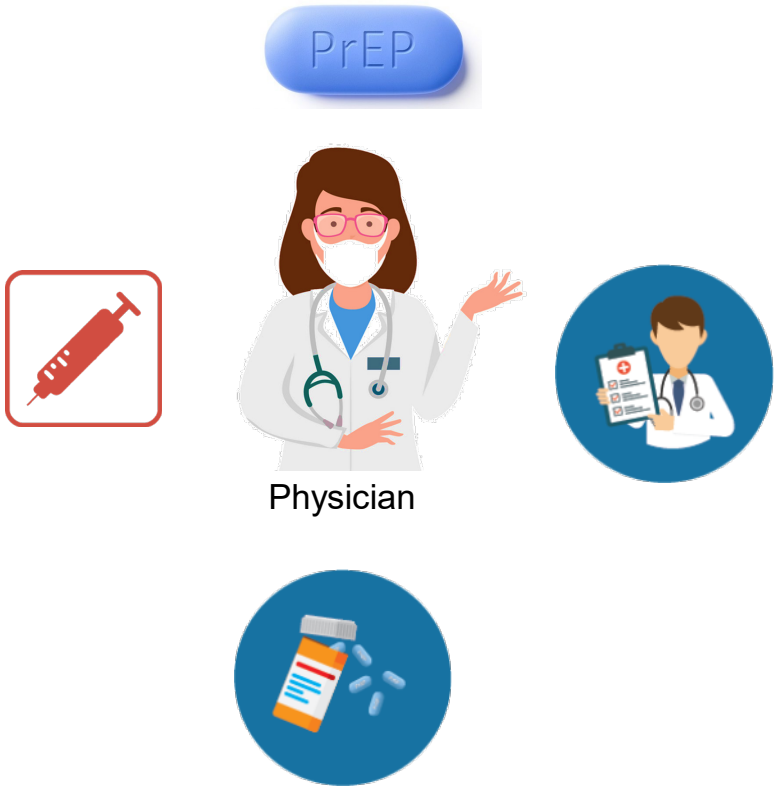
Data:
HIV Specialists: 2015 estimates, HRSA, HIV Specialist;
Other workforce numbers: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, 2020

Notes:
* Primary Care MDs are comprised of General Internal Medicine Physicians and Family Medicine Physicians
* Social Workers are comprised of Healthcare, Mental Health, and Substance Abuse Social Workers
* Counselors are comprised of Substance Abuse, Behavioral Disorder, and Mental Health Counselors

#2: Adopting Multidisciplinary Team-Based Models for HIV Services

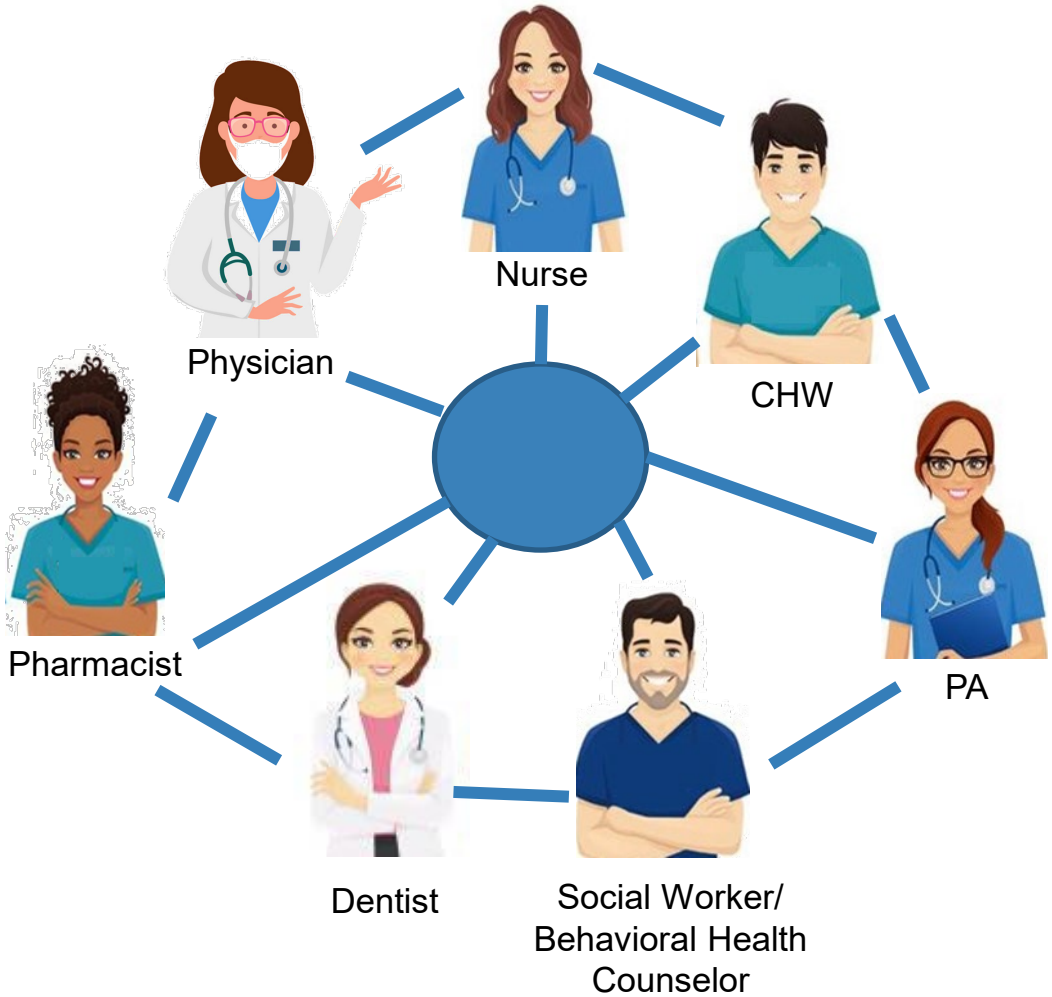
Traditional Model of Physician-Driven HIV Service Delivery

Physician-centered model focused on delivery of clinical prevention and treatment services



Reimagined Model for Team-Based HIV Service Delivery

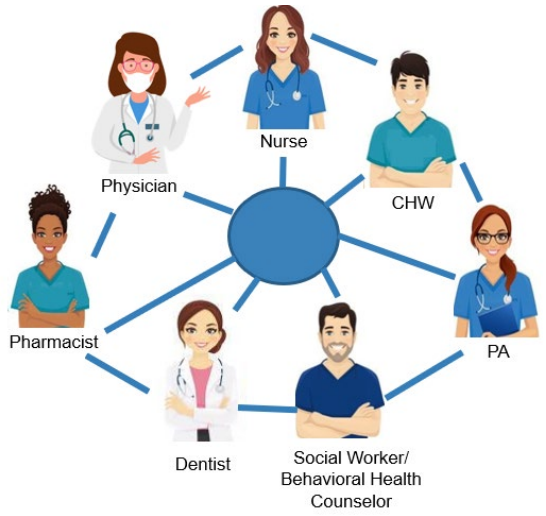
Comprehensive and team-based model of whole-person care that relies on complementary skills



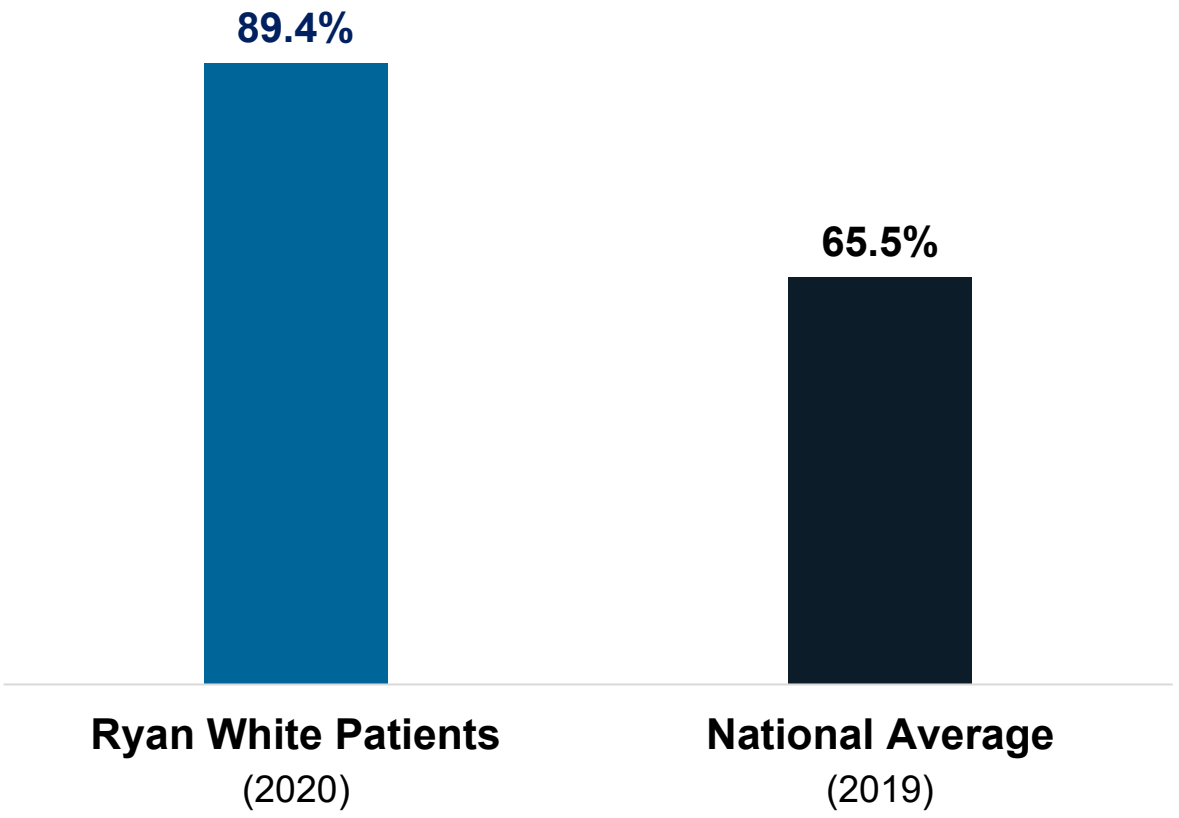
Making the Case for Multidisciplinary Team-Based HIV Services: The Ryan White Program as a Case Example

HRSA
Ryan White & Global HIV/AIDS Programs

Reliance on coordinated, multidisciplinary care teams for comprehensive HIV services represents a key characteristic of Ryan White funded care settings



Viral Suppression among People Living With Diagnosed HIV, United States



Sources: Dolin R, Masur H, Saag M. The AIDS Reader. 2009;19(5); Beane SN, et al. Journal of the Association of Nurses in AIDS Care. 2014;25(3):191-202; HRSA. Ryan White HIV/AIDS Program Parts & Initiatives, https://ryanwhite.hrsa.gov/about/parts-and-initiatives.

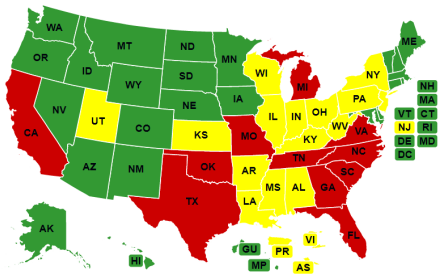
#3: Enabling Practice to the Highest Level of Training and Licensure

Traditional Model

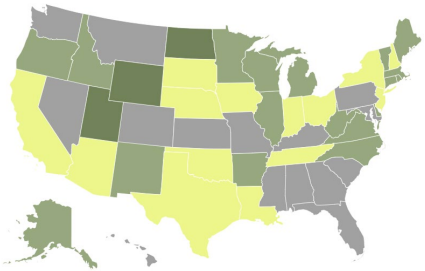
State-level regulatory restrictions preventing practice to the highest level of training/licensure for key members of the HIV care team

E.g.:

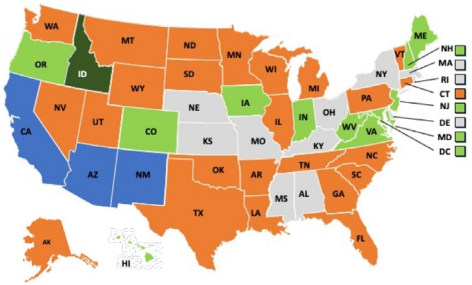
Nurse Practitioners



Physician Assistants



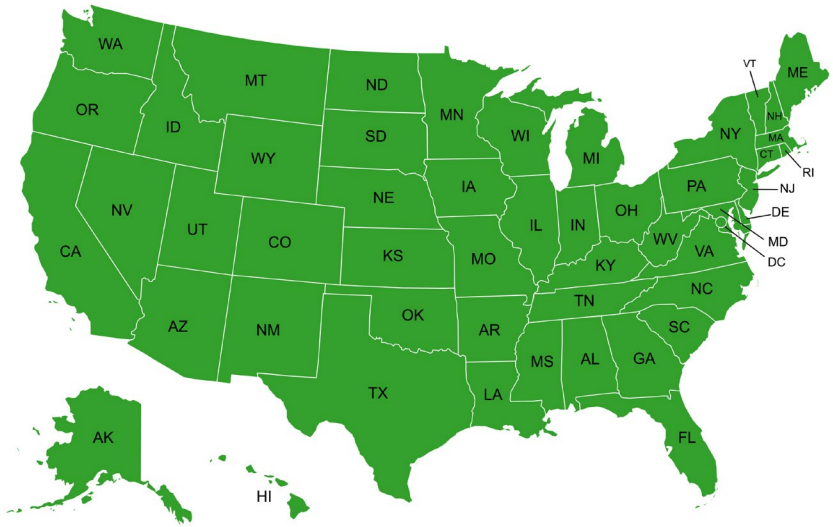
Pharmacists



Sources: Campaign for Action; American Academy of Physician Assistants; National Alliance of State Pharmacy Associations

Reimagined Model

Consistency for practice to the highest level of training/ licensure for all members of the HIV care team across the U.S.



Ability to practice to the highest level of training/licensure

Making the Case for Removal of Practice Restrictions

Nurse Practitioners

If full NP SOP were adopted nationally, the number of U.S. residents living in a county with primary care shortages would decrease by **70%**

Nurse-delivered primary care results in **comparable patient outcomes** relative to physician-delivered care, **including for HIV treatment**

Physician Assistants (PAs)

The quality of primary care delivered by PAs, including patient service use and referral, is **comparable** to physicians and NPs.

APRNs/PAs are **~50%** more likely to prescribe PrEP than physicians

Pharmacists

Advancement in pharmacist **education**, **certification**, and **training** has vastly expanded prevention and treatment services delivered by pharmacists

Pharmacists reported that they provide a wide range of patient care services to manage chronic diseases and improve overall health. These services included:

- 88% Medication management
- 84% Disease state education
- 63% Immunizations
- 60% Medication adherence services
- 58% Disease state management
- 42% Care transitions services including medication reconciliation
- 34% Health and wellness screenings
- 34% Smoking cessation
- 13% Nutrition and weight loss
- 6% Other

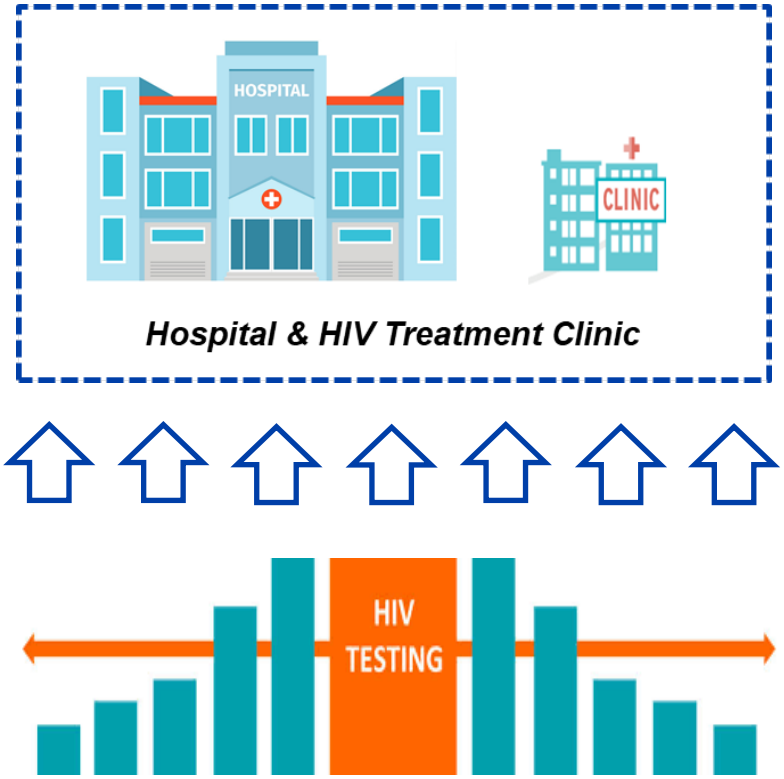
Sources: The Future of Nursing: 2020-2030, National Academies of Science, Engineering, and Medicine, 2021; Laurant, M, et al. Cochrane Database Syst Rev. 2018;7(7); Kurtzman ET, Barnow BS. Med Care. 2017;55(6):615-622; Zhang C, et al. AIDS patient care and STDs. 2019;33(12):507-527.; Owen JA, Skelton JB, Maine LL. Pharmacy. 2020;8(3):157.

#4: Adopting Decentralized and Differentiated Models for HIV Service Delivery

Traditional Model for HIV Service Delivery

Delivery of one-size-fits-all HIV services across the status-neutral care continuum within traditional, centralized clinical settings

One-size-fits-all, centralized clinical care

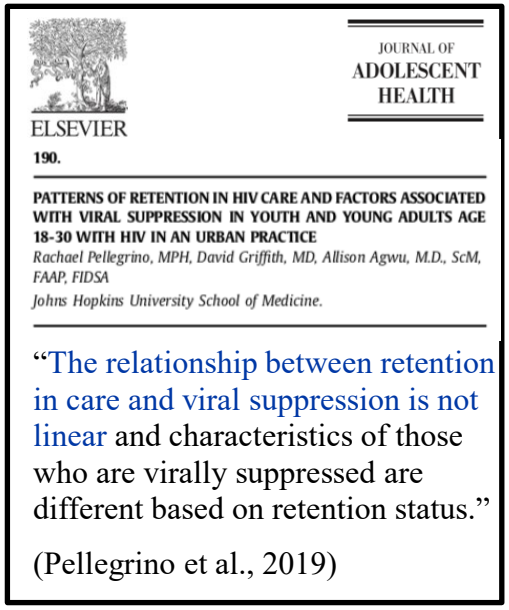


Reimagined Model for HIV Service Delivery

Differentiated and decentralized models that tailor HIV service delivery across the status-neutral care continuum to the needs of patients

Making the Case for Decentralized and Differentiated HIV Services

Optimal Adherence to Guidelines ≠ Optimal Care Outcomes



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190.

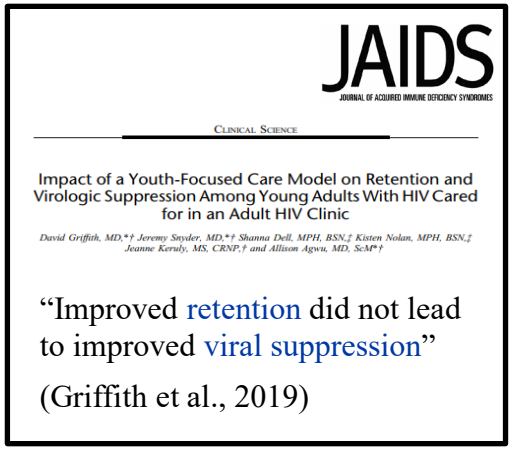
PATTERNS OF RETENTION IN HIV CARE AND FACTORS ASSOCIATED WITH VIRAL SUPPRESSION IN YOUTH AND YOUNG ADULTS AGE 18-30 WITH HIV IN AN URBAN PRACTICE

Rachael Pellegrino, MPH, David Griffith, MD, Allison Agwu, M.D., ScM, FAAP, FIDSA

Johns Hopkins University School of Medicine.

"The relationship between retention in care and viral suppression is not linear and characteristics of those who are virally suppressed are different based on retention status."

(Pellegrino et al., 2019)



JAIDS

JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES

CLINICAL SCIENCE

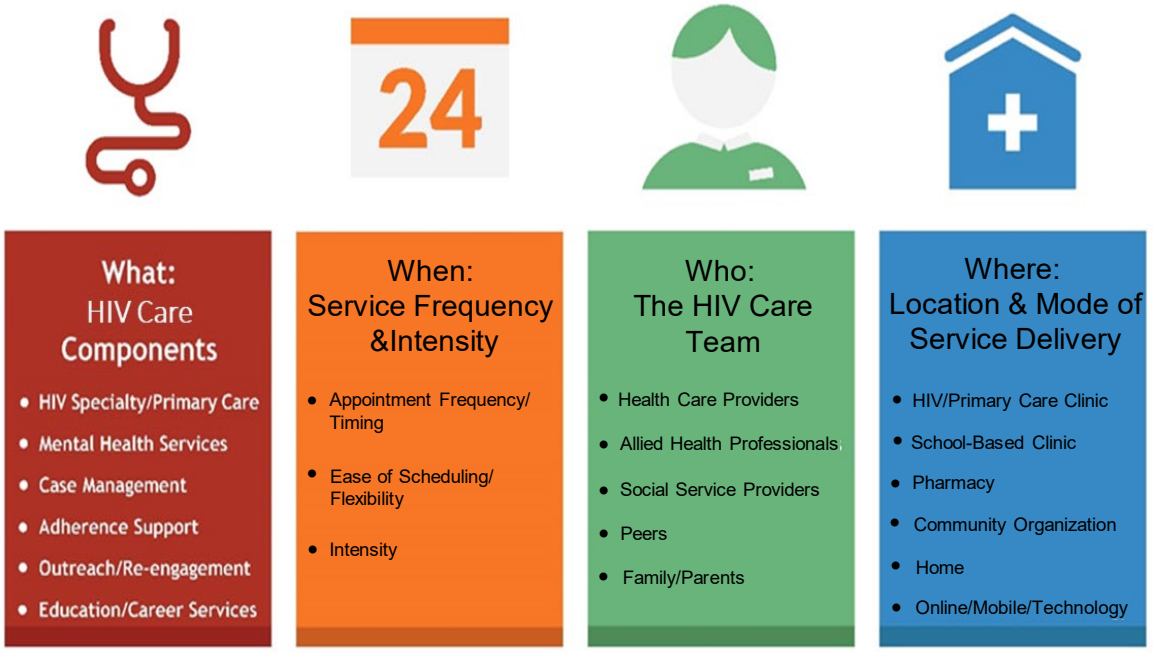
Impact of a Youth-Focused Care Model on Retention and Virologic Suppression Among Young Adults With HIV Cared for in an Adult HIV Clinic

David Griffith, MD,† Jeremy Snyder, MD,*† Shanna Dell, MPH, BSN,‡ Kisten Nolan, MPH, BSN,‡ Jeanne Keruly, MS, CRNP,† and Allison Agwu, MD, ScM*†*

"Improved retention did not lead to improved viral suppression"

(Griffith et al., 2019)

Tailored Differentiated Models of Care are Warranted



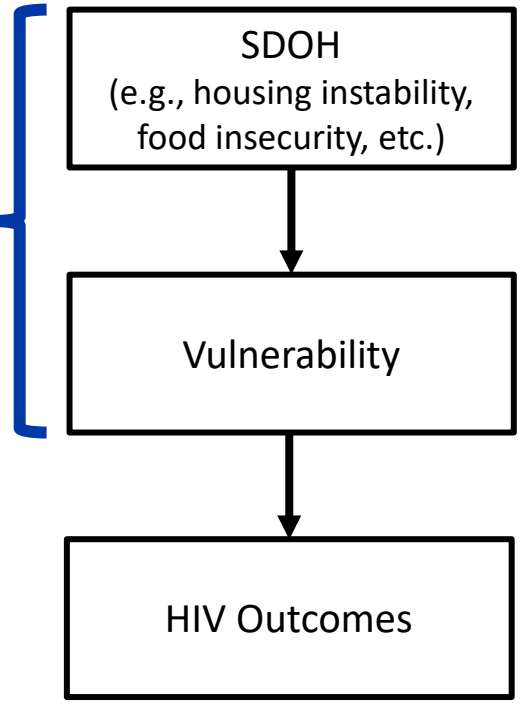
Sources: Pellegrino et al. Journal of Adolescent Health. 2019;64(S2):S97; Griffith et. al. JAIDS. 2019;80(2):e41-e47.; Guilamo-Ramos V, Thimm-Kaiser M, Benzekri A, Futterman D. NAM Perspectives. 2019.

#5: Increasing Workforce Capacity to Mitigate the Mechanisms of Social Determinants of Health (SDOH)

Traditional Model for Addressing SDOH in HIV Care

Focus on **screening** for patient vulnerability and **referral** to health and psychosocial support services to address SDOH impact

Screening and referral to support services



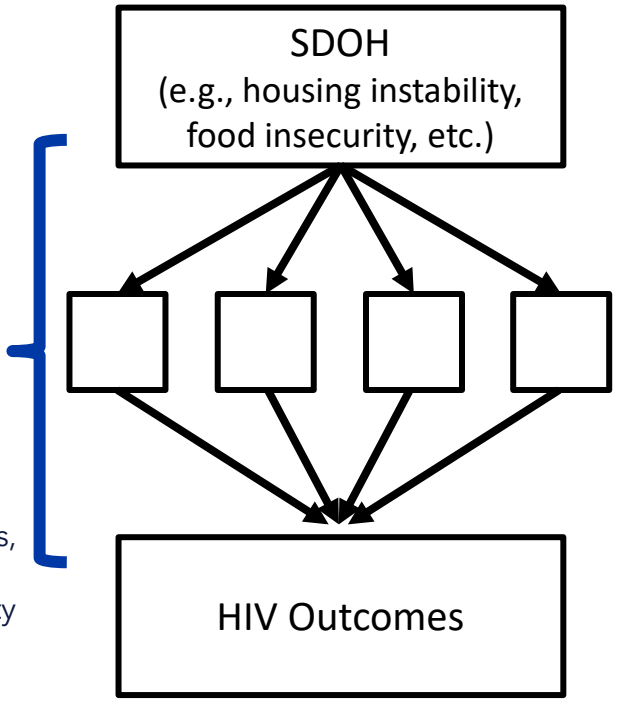
Reimagined Model for Addressing SDOH in HIV Care

Focus on identification and understanding of specific mechanisms of SDOH impact for **targeted mitigation**

Understanding mechanisms as opportunities for targeted intervention

Focus on *Resilience*

Factors that enable individuals, institutions, or communities to thrive despite adversity



Source: Thimm-Kaiser M, Benzekri A, Guilamo-Ramos V. The mechanisms of social determinants of health: An integrated framework and opportunities for mitigation. PNAS. *Under Review*.

Recommendations for Supporting a Reimagined HIV Workforce

1. Remove regulatory barriers that place restrictions on practice at the highest level of training and licensure

2. Ensure CMS offers reimbursement for decentralized, differentiated, and team-based whole-person HIV prevention and care services

3. Support a shift toward education and training for the future health workforce that emphasizes key competencies of team-based, whole-person HIV care and increase funding for specialized HIV training programs (e.g., via GME, GNE, etc.)

4. Invest in infrastructure development for delivery of decentralized, differentiated HIV prevention and care (e.g., telehealth, community-based delivery of services, etc.)

5. Allocate funding to HIV-specific demonstration projects designed to mitigate the specific mechanisms of SDOH and foster multilevel resilience (e.g., via Medicaid Section 1115)

Thank You!

Vincent Guilamo-Ramos

Please send any questions to:

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Center for Latino Adolescent and Family Health

Visit: https://clafh.nursing.duke.edu/