Is the USA on Track to End the HIV Epidemic?

3rd National Ending the HIV Epidemic Partnerships for Research Meeting
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Los Angeles, CA

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Co-Chair, Presidential Advisory Council on HIV/AIDS
Dr. Vincent Guilamo-Ramos serves as a member of:

- The U.S. Department of Health and Human Services (HHS) Panel on Antiretroviral Guidelines for Adults and Adolescents
- The HHS Presidential Advisory Council on HIV/AIDS, PACHA Co-Chair
- The CDC/HRSA Advisory Committee on HIV, Viral Hepatitis and STD Prevention and Treatment
- The National Academies of Sciences, Engineering, and Medicine’s Committee on Unequal Treatment Revisited.
- Board of the Latino Commission on AIDS and Power to Decide

Dr. Vincent Guilamo-Ramos also reports grant funding from the NIH, CDC, ACF, ViiV, and private foundations.
Four Decades of Progress in Ending the US HIV Epidemic

Outcomes:

- Biomedical innovations in testing, prevention, and treatment
- Overall reduction in annual new infections (75% reduction from 1985-2021)
- Improvements in overall life expectancy for PLWHIV
- Mobilization of a national/global response (including affected populations)
- Evolution of societal sentiment regarding HIV
- Development of systems, programs, and policies to respond to HIV and shape health/public health broadly
Is the USA on Track to End the HIV Epidemic?

"...we highlight the regularity with which the existing systems for HIV prevention and treatment delivery in the USA fail and the clearly inequitable effect of the systems’ failure among several priority populations of the Ending the HIV Epidemic (EHE) initiative"
Annual HIV Infections in the U.S., 2010-2021

Average annual reduction before EHE, 2010-19: 550

Average annual reduction during EHE, 2019-21: 1,350

Average annual reduction needed, 2021-30: 3,250

Viral Suppression Rates in the U.S., 2010-2021

Percentage of people with diagnosed HIV who have less than 200 copies of HIV per milliliter of blood

EHE 2030 Target: 95%

62% Black

64% Hispanic/Latino

+72% White

56% Injection Drug Use**

66% U.S. Overall

Estimated Viral Suppression Rate, 2021


*2010 VL ≤ 200 copies/ML, 2011-2021 VL < 200 copies/ML

**IDU rates for 2010-2016 reflect the average % for Men and Women who inject drugs
Opportunities for Systems Change to End the HIV Epidemic

2. Ensure evidence-based policies and laws reflect scientific advances in our understanding of HIV.
3. Restore and build trustworthiness of health and public health systems.
4. Address the harmful social determinants of health that drive HIV inequities.
5. Adopt a paradigm shift toward health vs. healthcare, including an HIV/AIDS cure/remission.
6. Broaden and diversify the HIV scientific, clinical, and community workforce.
7. Transform the societal sentiment toward and commitment to ending HIV.
1. Eliminate HIV prevention and treatment inequities – ensure impact

Estimated Annual New HIV Infections by Select Demographics, 2010-2021

-19% U.S. Overall
Percent Change in Estimated Annual New HIV Infections, Relative to 2010

-23% Black
-3% Latino
-20% White
+67% Young Black MSM (ages 25-34)
+57% Young Latino MSM (ages 25-34)
0% Injection Drug Use

A Closer Look:

1. Progress
2. Inadequate Progress
3. Stagnation
4. Worsening

2. Ensure policies and laws reflect scientific advances in our understanding of HIV.

2023 HIV Criminalization Laws

- Criminalize or Control Actions Through STD/Communicable/Infectious Diseases Specific Statutes (n=13)
- Criminalize or Control Actions Through HIV-Specific Statutes and Regulations (n=21)
- None/General Criminal Statutes (n=13)
- Sentence Enhancement Statutes (n=5)

2023 Anti-LGBTQ+ State Legislative Activity

- **Over 520** anti-LGBTQ+ bills have been introduced in state legislatures, a record;
- **Over 220** bills specifically target transgender and non-binary people, also a record; and
- **A record 70** anti-LGBTQ laws have been enacted so far this year

(Source: Human Rights Campaign)
3. Restore and build trustworthiness of health and public health systems.

### Forms of HIV Discrimination

<table>
<thead>
<tr>
<th>Discrimination</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributed to their race or ethnicity</td>
<td>20%</td>
</tr>
<tr>
<td>Attributed to their sexual orientation or practices</td>
<td>23%</td>
</tr>
<tr>
<td>Treated with less courtesy</td>
<td>48%</td>
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<tr>
<td>Treated with less respect</td>
<td>48%</td>
</tr>
<tr>
<td>Doctor or nurse was not listening to what they were saying</td>
<td>62%</td>
</tr>
</tbody>
</table>

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**HIV Stigma and Health Care Discrimination Experienced by Hispanic or Latino Persons with HIV — United States, 2018–2020**

- **Attributed to their race or ethnicity**: 20%
- **Attributed to their sexual orientation or practices**: 23%
- **Treated with less courtesy**: 48%
- **Treated with less respect**: 48%
- **Doctor or nurse was not listening to what they were saying**: 62%

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**CBS NEWS**

**A quarter of Americans distrust CDC recommendations, survey finds**

By Alexander Tin  
March 7, 2023 / 8:22 PM EST / CBS News

**POLITICO**

**The CDC wants your trust back: It’ll ‘take time to rebuild.’**

The CDC’s new director is traveling the country, meeting with state leaders and using social media to win back the public’s trust.

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4. Eliminate the harmful social determinants of health that drive HIV inequities.

Conceptual Evolution of SDOH as Reflected in the Extant Literature:

- Recognition of SDOH shaping health outcomes
- Mechanisms largely unrecognized

- Recognition of SDOH as underlying systematic health disparities
- Deficiency-focused ("vulnerability lens")

- Inequity perspective on SDOH that highlights social processes and injustices

Important constructs and dynamic mechanisms identified in the literature are missing from the current conceptualization:

- **Dynamic** vs. static SDOH influence
- Accommodates both SDOH capital & SDOH processes
- **Multilevel and broad application**
- Goes beyond individual focus and centers on the **family context**
- Incorporates co-occurring synergistic inequities
- Takes a **life course perspective**
- Focuses on exposure and susceptibility (vs. "vulnerability")
- Integrates **social/behavioral and biological** factors
- Leverages assets and **resilience**
Upcoming Special Issue Highlights Design and Analytic Methods for Multi-Level Interventions to Eliminate Health Inequities

Director's Messages

Call for Papers: Design and Analytic Methods to Evaluate Multilevel Interventions to Reduce Health Disparities

David M. Murray, Ph.D.
Associate Director for Prevention
Director, Office of Disease Prevention

Application of a Heuristic Framework for Multilevel Interventions to Address and Mitigate the Impact of Unjust Social Processes and Other Social Determinants of Health.

Open Access:
5. Adopt a paradigm shift from healthcare towards health – including HIV/AIDS cure/remission.
6. Broaden and diversify the HIV scientific, clinical, and community workforce

Number of PI applicants by race-ethnicity for R01 awards by fiscal year.

- 2020: Mean age at first R01: 42
6. Broaden and diversify the HIV scientific, clinical, and community workforce

Factors Limiting Clinical Workforce Capacity:

- Aging HIV workforce
- Insufficient trainees entering HIV specialties
- Strain on the health workforce

Black Representation in the Primary Care Physician Workforce and Its Association With Population Life Expectancy and Mortality Rates in the US

John E. Snyder, MD,MS, MPH; Rachel D. Upton, PhD; Thomas C. Hassett, PhD; Hyunjung Lee, PhD, MS, MPP, MBA; Zakia Nouri, MA; Michael Dill, MAPP

“…greater Black PCP workforce representation is associated with better population health measures for Black individuals…”
6. Broaden and diversify the HIV scientific, clinical, and community workforce

- Nurse Practitioners
- RNs
- Epidemiologists
- Primary Care Providers
- Infectious Disease Physicians
- Non-ID Physicians who provide HIV care
- Physician Assistants
- Public Health Specialists
- CBO Staff
- Health Educator
- CHWs
- Social Worker
- Dentist
- People with lived experience
- Pharmacists
- Infectious Disease Physicians
- Non-ID Physicians who provide HIV care
- Community HIV Workforce
- Expanded Clinical and Scientific HIV Workforce
7. Transform the societal sentiment toward and commitment to ending HIV.

% of American Adults Who Do Not View HIV/AIDS as a Serious Problem in the US Today, 2023

- Total: 24%
- White: 26%
- Hispanic: 19%
- LGBT: 16%
- Knows someone who has/personally has HIV: 16%
- Black: 11%

1 in 4 (24%) Americans Don’t View HIV/AIDS as a Serious Problem in the U.S. Today (Up from 17% in March 2019)
8. Commit to financial investment in public health infrastructure.

Total National Health Expenditures
Total Expenditures: Public Health Activities

Goal 1: Enhance discovery and advance HIV science through fundamental research.

**Description:** Fundamental research seeks to expand understanding of the biological, physiological, interpersonal, and social-structural mechanisms of HIV—i.e., how it operates as a virus and as an infectious disease pandemic—at the molecular, cellular, individual, community, and population level. This understanding provides the foundation for the development of safe, effective, and scalable tools to prevent, treat, and ultimately cure HIV infection, as well as reduce the risk and impact of comorbid conditions and co-occurring infections.

**Overlap:**
- Development and scale-up of HIV prevention and treatment tools.
- HIV cure/remission.

**Scientific and Programmatic Opportunities:**
- Eliminate HIV prevention and treatment inequities.
- Adopt a paradigm shift toward health vs. healthcare.

Goal 2: Advance the development and assessment of novel interventions for HIV prevention, treatment, and cure.

**Description:** Knowledge gleaned from fundamental, pre-clinical, and translational research to inform clinical trials and other intervention studies to test the most promising products, tools, or strategies for HIV prevention, treatment, and cure and management of its complications. Rigorous randomized control trials, observational studies, and other methodologies assess biological, behavioral, and social outcomes of novel interventions, as well as their feasibility, acceptability, effectiveness, and scalability in differing populations and across the lifespan.

**Overlap:**
- Novel intervention development and evaluation for prevention, treatment, and cure.
- Commitment to scale-up of most efficacious interventions and address implementation issues.

**Scientific and Programmatic Opportunities:**
- Greater scientific emphasis on the elimination of harmful social determinants of health.

Goal 3: Optimize public health impact of HIV discoveries through translation, dissemination, and implementation of research findings.

**Description:** As HIV prevention, treatment, and cure interventions are shown to be efficacious, their findings must be translated to inform practice and to connect with communities and the general public in order to maximize their public health impact. Implementation research can identify how best to facilitate effective adaptation, uptake, integration, and scale-up of evidence-based HIV interventions. Information-sharing through community partnerships, research collaborations, and dissemination activities can amplify the impact of research and promote health equity.

**Overlap:**
- Community partnerships and collaboration; national scale-up and impact.

**Scientific and Programmatic Opportunities:**
- Transform the societal sentiment toward and commitment to ending HIV.
- Develop the science of trustworthiness.
- Ensure policies and laws reflect scientific advances in our understanding of HIV.
- Investments/funding for prevention and health promotion vs. specialty care.

Goal 4: Build research workforce and infrastructure capacity to enhance sustainability of HIV scientific discovery.

Description: Continued progress in HIV science and its application requires robust support for research tools, computational resources, instrumentation, data and physical infrastructure, and workforce development, particularly in institutions that serve underrepresented or high HIV burden populations or that historically have been underfunded in the United States and globally. Such enhanced capacity-strengthening efforts will promote diversity and inclusion in the HIV research workforce.

Overlap:
- Financial investment in public health workforce and infrastructure; diversity and inclusion.
- Diversity and inclusion of underrepresented individuals in scientific, clinical, and community workforce.

Scientific and Programmatic Opportunities:
- Broaden definition and diversify the HIV scientific, clinical, and community workforce.
- Develop the science of workforce congruence & competence.
- Examine impact of policies and laws related to workforce and impact on health (e.g. Harvard vs. UNC supreme court decision).

Upcoming: NIH Office of AIDS Research’s Strategic Goals FY 2026 – 2030

Thank You!

Dr. Vincent Guilamo-Ramos
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Institute for Policy Solutions

Please send any questions or comments to:
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