Ending the Epidemic in New York City

Demetre Daskalakis, MD, MPH
Deputy Commissioner, Disease Control
Department of Health and Mental Hygiene
New York Ending the Epidemic: Community + Science + Political Will
Ending the Epidemic (EtE): A Recipe

Science

Community

Political Will

GET TESTED.
TREAT EARLY.
STAY SAFE.

End AIDS.
What Does Ending the Epidemic Mean?

- Identify persons with HIV who remain undiagnosed and link them to health care.
- Link and retain persons diagnosed with HIV in health care to maximize viral suppression so they remain healthy and prevent further transmission.
- Facilitate access to Pre-Exposure Prophylaxis (PrEP) for HIV-negative persons at risk of exposure.

D. Holtgrave
Creating The Blueprint

- Recommendations solicited from the Community
- October 2014: Task Force Convened
- December 2014: Task force meetings to generate recommendations completed
- Unanimous Agreement of All Members
- January 2015: Blueprint released
HIV is an Emergency: Treat it That Way!
New York City
Epidemiology & Background
Surveillance Data, 2017
HISTORY OF THE EPIDEMIC

Number of New HIV/AIDS Diagnoses and Deaths

- New AIDS Diagnoses
- HIV-Related Deaths
- Reported People Living with AIDS
- Reported People Living with HIV (non-AIDS)
- New HIV Diagnoses
- Number of Reported PLWH

New York State (NYS) mandates AIDS case reporting
AIDS case definition expanded
All HIV-related lab tests reported to surveillance
NYS expands reporting to include HIV
NYS HHS reporting law takes effect
NYS mandates routine offer of HIV test
ART recommended for all PLWH
Food and Drug Administration (FDA) approves pre-exposure prophylaxis (PrEP)

NYC is on track to reaching its Ending the HIV Epidemic goals

• The annual number of new HIV diagnoses continues to decline, from 2,279 in 2016 to 2,157 in 2017 (a 5.4% decrease).
  • From 2016 to 2017, new HIV diagnoses among women decreased by 11.6%.
  • New diagnoses among men declined in 2017, by 3.6% from 2016; however, while new diagnoses among Black men decreased during this period, new diagnoses increased among Latino/Hispanic men.

• The estimated number of new HIV infections also continues to decline, with a 36% decrease since 2013 and an 18% decrease from 2016 to 2017.

• In 2017, 14% of all new diagnoses in NYC were made during the acute phase of HIV infection, an important increase from 9% in 2013. This reflects the City’s efforts to promote HIV testing and HIV/STI prevention services more broadly.

• The all-cause mortality rate and rate of HIV-related deaths among PWH continue to decline, by 68.2% and 83.3%, respectively, between 2001 and 2016. Two-thirds of deaths among PWH in NYC are now attributed to a non-HIV-related cause.

• Overall, 74% of all estimated PWH were virally suppressed in 2017. Of those in care, 85% were virally suppressed in 2017 (up from 79% in 2013).
New Diagnoses by Race/Ethnicity and Gender in NYC, 2017

Blacks and Latinos/Hispanics accounted for 76% and 88% of new HIV diagnoses in men and women, respectively, in NYC in 2017.
Estimated HIV incidence overall and by transmission risk group declined in NYC between 2013 and 2017.

MSM=Men who have sex with men; IDU=Injection drug use history.


Proportion of new HIV diagnoses determined to be AHI
New York City, 2008-2017

As reported to the New York City Department of Health and Mental Hygiene by March 31, 2018.
The proportion of people living with Stage 1 HIV infection (CD4 ≥500 cells/μL) steadily increased in NYC from 2013 to 2017.

Achieving ETE GOALS:
New HIV Diagnoses and Estimated Incident HIV Infections in NYC, 2010-2020

Numbers of new HIV diagnoses from 2010 to 2017 were reported to NYC DOHMH as of March 31, 2018. Estimated incident HIV infections from 2010 to 2017 were calculated using CDC’s “CD4-depletion model,” which uses distribution of CD4 count at HIV diagnosis to estimate timing of HIV infection. All data from 2018 to 2020 are projections based on an estimated acceleration of historical declines.
What does this all mean?

• We are diagnosing prevalent HIV infections at a stable rate earlier and more efficiently
  • Proportion of acute infections detected increasing
  • Diagnosis at earlier stage of infection, before people get ill. 17.5 % concurrent AIDS

• Decreasing incidence means that people are not getting HIV
  • U=U continues to work
  • PrEP in MSM is likely driving down transmission

• Areas we are working to improve
  • PrEP in cis Women and TGNC People
  • Latino MSM- ¡Listos! and more!

NYC IS ON TRACK FOR 2020!
Syndemic Data
### Sexually Transmitted Infections in New York City

<table>
<thead>
<tr>
<th>STI</th>
<th>2016</th>
<th>2017</th>
<th>% Change (2017 vs. 2016)</th>
<th>% Change (2017 vs. 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary and Secondary Syphilis</td>
<td>1,939</td>
<td>1,799</td>
<td>↓ 7%</td>
<td>↑ 10%</td>
</tr>
<tr>
<td>Latent Syphilis</td>
<td>5,941</td>
<td>6,194</td>
<td>↑ 4%</td>
<td>↑ 17%</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>19,029</td>
<td>23,491</td>
<td>↑ 23%</td>
<td>↑ 19%</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>66,748</td>
<td>71,690</td>
<td>↑ 7%</td>
<td>↑ 7%</td>
</tr>
</tbody>
</table>

**Cases of STI reported to NYC Department of Health, 2017 vs. 2016**

**U.S. Comparison**
Hepatitis C and HIV Co-Infection

In 2016, 9,124 people living with HIV ever had a positive hepatitis C RNA test and 4,688 started treatment, leaving 4,436 people living with HIV and untreated for hepatitis C infection as of January 2017.

HIV Transmission Risk Factors
Risk factors for HIV transmission among people with HIV and hepatitis C co-infection versus HIV infection only, 2016

Hepatitis C Care Outcomes
Hepatitis C care cascade for people with hepatitis C and HIV co-infection, 2016

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Poverty level, NYC 2012-2016

HIV diagnosis rates, NYC 2017

HIV prevalence, NYC 2017

Age-adjusted death rates among people with HIV/AIDS, NYC 2017


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1Rates calculated using Health Department 2016 population estimates, modified from U.S. Census Bureau intercensal population estimates, updated September 2017.

2Age-adjusted to the NYC Census 2010 population. People newly diagnosed with HIV at death were excluded from the numerator.
New York City’s Ending the Epidemic Implementation Strategy
Current Bureau of HIV Services Mapped onto NYS EtE Pillars
The New York City EtE Plan: Strategies to Address Disparities

1. Transform Sexual Health Clinics into:
   a. “Destination Clinics” for Sexual Health Services
   b. Efficient Hubs for HIV Treatment and Prevention
2. Launch PrEP and Repair the nPEP Delivery System
4. Take NYC Viral Suppression from Good to Excellent
5. Make NYC Status Neutral
Transforming Sexual Health Clinics
Why the STD Clinics Matter for HIV

HIV POSITIVE

- **10%** of new HIV in NYC diagnosed there
- **20%** of NYC Acute HIV diagnosed there
- Safety net for some PLWHA not connected to care
- Existing models of immediate ARV starts for newly diagnosed ideal for this setting
- Data support treatment is prevention
- STD clinics with proven track record for connection to care
STD Clinics Are the Front Line of HIV

NYC HIV Incidence Studies:

- **1 in 42 MSM** attending NYC STD Clinics were diagnosed with HIV within a year\(^1\)
- **1 in 20 MSM** diagnosed with P&S Syphilis in NYC were diagnosed with HIV within a year\(^2\)
- **1 in 15 MSM** diagnosed w/ anorectal chlamydia/gonorrhea in NYC STD Clinics were diagnosed with HIV within a year\(^3\)

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\(^1\) Pathela P, *AIDS Behav*. 2016 [Epub ahead of print]
State of the Art HIV Interventions in Sexual Health Clinics

**BIOMEDICAL EVALUATION AND INTERVENTION:**
Instant starts of ARV treatment and prevention

**SOCIAL WORK ASSESSMENT FOR SOCIAL DETERMINANTS OF RISK OR DISEASE PROGRESSION + INSURANCE CONNECTION**

**NAVIGATION TO LONGITUDINAL CARE FOR BOTH HIV NEGATIVE AND POSITIVE CLIENTS**
Not Just a Plan Any More!
NYC Sexual Health Centers are HIV Hubs!!

**PrEP Navigation***
Launched 10/31/16
ALL CLINICS
Over 11,900 Encounters

**PEP 28***
Started 10/31/16
ALL CLINICS
2,979 PEP Starts
60% Black/Latino

**“JumpstART”***
Launched 11/23/16
STARTED IN ONE CLINIC
NOW IN ALL CLINICS
476 JumpstARTs
73% Black/Latino

**PrEP Initiation***
Started 12/22/16
STARTED IN ONE CLINIC
NOW IN ALL CLINICS
2,786 PrEP Starts
55% Black/Latino

* As of January 2019
Launching PrEP
From the beginning of program through 2017:
- Over 5,400 enrollments in the Network
- Over 3,500 PrEP/PEP education sessions
- Over 750 PrEP initiations (clinical context)
- Over 680 linkages to PrEP (CBO context)
Status-neutral Care Coordination

Built on the Ryan White Care Coordination Model

- 8 sites implemented status-neutral linkage and navigation

Expand services to HIV-negative persons

- 768 individuals enrolled in the programs

Link to PrEP, mental health and substance use services

- 437 enrollees linked to PrEP

From the beginning of the program through 2017:
PrEP Prescription Trends Using PCIP’s “Hub”
(PrEP Rx/100,000 Patients at 602 Ambulatory Care Practices 2014–2016)

Edelstein, Salcuni et al., unpublished data 2017.
HIV Prevention Continuum in NYC

Sexual Health Survey, Spring 2017
Aggregate Online and In-person Sample
(n=629)

Percentage of participants

<table>
<thead>
<tr>
<th>Event</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrEP Candidate†‡</td>
<td>100%</td>
</tr>
<tr>
<td>Provider visit, past 6 months</td>
<td>78%</td>
</tr>
<tr>
<td>Sexual hx and provider visit,^ past 6 months</td>
<td>71%</td>
</tr>
<tr>
<td>Discussed PrEP with provider, past 6 months</td>
<td>55%</td>
</tr>
<tr>
<td>On PrEP, past 6 months</td>
<td>30%</td>
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*Sample includes sexually active MSM aged 18-40 years and who report HIV-negative/unknown status
†PrEP candidates defined as reporting diagnosis of an anal STI in the past year or any of the following in the previous 6 months: unprotected anal intercourse, transactional sex, use of cocaine, crack, methamphetamines, or injection drugs, using PEP or having had an HIV-positive partner. Definition mirrors NYS PrEP guidance. ‡PrEP candidates represent 83 % of all HIV-negative respondents. ^Sexual history ever taken by a provider visited in past 6 months

Repairing nPEP delivery
Fix nPEP Delivery in NYC

**24 HR PEP LINE**
- Clinician Staffed
- Free Starter Packs prescribed without a visit at a 24h pharmacy
- Link to PEP Center next business day

**PEP CENTERS OF EXCELLENCE**
- Urgent Care Model
- Immediate Starts Regardless of Insurance status
- PrEP Linkage
PEP Call Center

From the beginning of program through 2017:

- **1,075** clients accessing PEP Call Center
- **692** PEP starter packs prescribed
- **663** PEP starter packs received
- **894** linkages to a PEP provider
PEP Centers of Excellence

From the beginning of program through 2017:

- 445 Clients accessing PEP COE services
- 434 PEP packs prescribed
- 420 PrEP eligibility assessments

- PEP Center of Excellence (COE)
- PEP Call Center
- PEP Call Center Pharmacy Locations
Supporting Priority Populations
Address Gaps in Methamphetamine Services

WANT TO LEARN HOW TO USE CRYSTAL METH SAFELY?

Recharge is an open, sex-positive, safe space. Come in and learn about safer crystal meth use and explore a strategy that works for you.

Re-Charge occurs every Tuesday and Thursday.

<table>
<thead>
<tr>
<th>TUESDAYS 5-8pm</th>
<th>THURSDAYS 4-7pm</th>
</tr>
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<tbody>
<tr>
<td>GMHC</td>
<td>PHP / Housing Works</td>
</tr>
<tr>
<td>446 West 33rd Street</td>
<td>301 West 37th St #3,</td>
</tr>
<tr>
<td>New York, NY 10001</td>
<td>New York, NY 10018</td>
</tr>
</tbody>
</table>

Visit [http://recharge.support](http://recharge.support) for more info.

<table>
<thead>
<tr>
<th>Methamphetamine Program</th>
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<tbody>
<tr>
<td>Number of Meth users enrolled: 117</td>
</tr>
<tr>
<td>Enrollees receiving clinical/support services use: 87</td>
</tr>
<tr>
<td>Enrollees who are linked to PrEP: 12</td>
</tr>
</tbody>
</table>

From the beginning of the program through 2017
CON EL TRATAMIENTO, ESTOY ¡listo!

EL TRATAMIENTO CONTINUO DEL VIH TE MANTIENE SALUDABLE.
Si sigues un tratamiento y tienes una carga viral indetectable, no transmitirás el VIH. El tratamiento está disponible en Nueva York. Independientemente de tu capacidad de pago o estatus migratorio.
Envía el mensaje de texto CUIDATE al 877877 para encontrar un proveedor médico. Visita nyc.gov/hiv y busca "HIV care" (tratamiento del VIH). #equidad
Moving Viral Suppression from Good to Excellent
Recent and Pivotal Clinical Studies

HPTN 052
- Partners PrEP Demonstration Project
  - Zero Transmissions if any combination of treatment/PrEP/both

PARTNER
- Rate of HIV transmission according to sexual behaviour reported by the negative partner
  - Zero Linked Transmissions
- Linked transmissions (n)
  - Overall: 0
  - Any CLAI: 0
  - Any CLAI, no daily PrEP: 0
  - Insertive CLAI: 0
  - Receptive CLAI: 0
  - Viral load: 0
  - VSTI: 0
  - First months ART: 0
- [HIV incidence by category of CLAI]
- Zero Linked Transmissions

PARTNER2
- Estimate transmission after 419 YEARS of condomless sex
  - Zero Linked Transmissions...

Cohen, et al.
Rodger A, et al.
Baeten J, et al.
Grulich, et al.
Rodger A, et al.

Opposites Attract
People living with HIV on ART with an undetectable viral load in their blood have a negligible risk of sexual transmission of HIV. Depending on the drugs employed it may take as long as six months for the viral load to become undetectable. Continued and reliable HIV suppression requires selection of appropriate agents and excellent adherence to treatment. HIV viral suppression should be monitored to assure both personal health and public health benefits.

(Negligible is defined as: so small or unimportant as to be not worth considering; insignificant.)
Science Transformed into a Public Health Message

New York City Health Official Joins Global Leaders in Signing a Consensus Statement on the HIV/AIDS Epidemic's Most Groundbreaking Development in the Last Twenty Years

August 10, 2016

Dr. Demetre Daskalakis becomes the First U.S. Public Health Official to Conclude "Negligible Risk" of Transmission from a Person with HIV who is Undetectable.

"HIV/AIDS experts from the U.S., Australia, Denmark and Switzerland--including Dr. Demetre Daskalakis, Assistant Commissioner for the Bureau of HIV/AIDS at the New York City Health Department -- endorsed a consensus statement concluding "negligible risk" of HIV transmission from a person with HIV who is on antiretroviral therapy (ART) and has had a consistently undetectable viral load for six months and beyond.

New York State Becomes the First State in the U.S. to join U=U

September 20, 2017

Today, the New York State Department of Health became the first state in the United States to join the U=U campaign. New York State DOH Commissioner Zucker issued "Dear Colleague Letters" detailing this historic development.

"Results from clinical trials on Truvada are now sufficiently robust for global authorities on AIDS research and policy to support a message that individuals with a sustained undetectable viral load will not sexually transmit HIV, or "Undetectable equals Untransmittable (U=U). The framework of U=U offers many opportunities for improving care and quality of life for New Yorkers living with HIV. Consequently, the Department recognizes that it is more important than ever to make consumers, the public, and providers aware of the changing scientific evidence related to HIV."

Dear Colleague: September 27, 2017

"CDC: "Effectively No Risk" of Sexual HIV Transmission if Undetectable"

Dear Colleague,

Today is National Gay Men’s HIV/AIDS Awareness Day. On this day, we join together in taking action to prevent HIV among gay and bisexual men and everyone else to increase HIV testing and awareness. This year, CDC’s Division of HIV/AIDS Prevention is focusing on the message that individuals who take antiretroviral therapy can live healthy lives and have an undetectable viral load.

CDC’s "Effectively No Risk" campaign is part of the larger " learns about it and learns to live with it" initiative, which is encouraging everyone to get tested and learn their HIV status so they can make informed decisions about their health.

CDC's "Effectively No Risk" campaign highlights the fact that people who are HIV-positive and who are on antiretroviral therapy (ART) with an undetectable viral load have effectively no risk of sexually transmitting the virus to their partners.

However, according to recent research, women and Native Hawaiians and Other Pacific Islanders still face higher rates of HIV infection. In addition, many gay and bisexual men living with HIV are not receiving care and treatment they need. Antiretroviral therapy plus care and treatment can help people with HIV live long, healthy lives.

"Learn about it, learn to live with it."
Undetectable = Untransmittable
The Undetectables

Scale up of Housing Works developed intervention

7 providers implemented Undetectable model

Multi-domain strategy – social, medical, behavioral and beyond

1,705 unique clients enrolled as of 4/18

Use of financial incentives for suppression

1,191 unique clients who have received an incentive
Of approximately 90,500 PLWHA in NYC in 2017, 74% had a suppressed viral load.

As reported to the New York City Department of Health and Mental Hygiene.
Making NYC Status Neutral
Prevention=Linkage to Medical Care

New York Revamps Safe Sex

In sum, black men diagnosed with HIV are where they are in the city, and Daskalakis estimated that the assessment by the assistant city commissioner of New York City's Department of Health on prevention is that we need to be vigilant. However, the bag has carried PrEP in a slightly different form of packaging and issued by the city. Lubricant is a slightly different form of packaging.
HIV Prevention Continuum in NYC

Sexual Health Survey, Spring 2017
Aggregate Online and In-person Sample
(n=629)

Sample includes sexually active MSM aged 18-40 years and who report HIV-negative/unknown status
PrEP candidates defined as reporting diagnosis of an anal STI in the past year or any of the following in the previous 6 months: unprotected anal intercourse, transactional sex, use of cocaine, crack, methamphetamines, or injection drugs, using PEP or having had an HIV-positive partner. Definition mirrors NYS PrEP guidance. ‡PrEP candidates represent 83% of all HIV-negative respondents. †Sexual history ever taken by a provider visited in past 6 months
HIV Linkage and Treatment = Prevention
Of approximately 90,500 PLWHA in NYC in 2017, 74% had a suppressed viral load.

As reported to the New York City Department of Health and Mental Hygiene.
New York City's HIV Status Neutral Prevention & Treatment Cycle

People at risk of HIV exposure taking daily PrEP and people with HIV with sustained viral load suppression do not acquire or transmit HIV.
New York City is:

People Focused

Status Neutral

Full Spectrum
THANK YOU!

ddaskalakis@health.nyc.gov