

Clinical Education Initiative Support@ceitraining.org

ENDING THE HIV EPIDEMIC IN NEW YORK CITY: FROM SCIENCE TO ACTION

Speaker: Demetre C. Daskalakis, MD, MPH

4/18/2017



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[video transcript]

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- [Jim] Welcome to Physicians' Research Network. I'm Jim Braun, the course director of the monthly meetings of PRN in New York City. Since our beginning in 1990, PRN has been committed to enhancing the skills of our members in the diagnosis, management, and prevention of HIV disease, as well as its co-infections and complications. We hope this recording of the presentation by Demetre Daskalakis, Ending the HIV Epidemic in New York City: From Science to Action, will be helpful to you in your daily practice, and invite you to join us in New York City for our live meetings in the future. PRN is a not-for-profit organization dedicated to peer support and education for physicians, nurse practitioners, and physician assistants, and membership is open to all interested clinicians nationwide at our website, PRN.org. And now, allow me to introduce Demetre Daskalakis, Acting Deputy Commissioner of the Division of Disease Control at the New York City Department of Health and Mental Hygiene.

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- [Demetre] Thank you so much for joining us at PRN. And today I'm really excited to come and talk about our progress in ending the epidemic of HIV in our jurisdiction.

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The objectives are really gonna be to focus on looking at what our plan is-like learning more about ending the epidemic plan and evolution of the blueprint. We're then gonna go from the state blueprint that we were all a part of developing in New York City to actually, our implementation strategy in the city itself. So what we're doing in this jurisdiction, in New York City, in the five boroughs, to actually implement the plan to end the epidemic. And then ultimately, I want to end probably the same place that Dr. Little is going to take you- talking about the importance of integrating treatment and prevention into a status neutral strategy, where the HIV test result is less important than the services that are provided to individuals to maintain their health. And so I'd like to start by reminding everybody that there is a definite recipe, there is a way to end an epidemic.

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And that way is combining community mobilization, science, and political will together to change the story. And so ending the epidemic of HIV in New York City and New York State doesn't really begin in 2012 when we reference the first conversation that led to the change,

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But it begins in the 80s and 90s when community activists went to halls of power, demanding access to care and access to medicines. So that same voice gets pulled into this decade. You see my friends Mark Harrington and Charles King getting arrested at the White House. They're going to get arrested there again, I'm sure. And that's where they had a very important conversation, when they got pulled into the paddy wagon. And in the paddy wagon, they said, you know, we should go back to New York State and New York City and say, you know, you have the technology, motivate an effort to actually drive the HIV epidemic to the point where it's no longer an epidemic, where the numbers look like we're going to be



able to end this by extinguishing the ongoing increase of newly diagnosed individuals and new transmissions. And so then I show you a picture of people protesting, because their protests really resulted in everything that I'm about to tell you. They weren't making it up, we have the science to end the epidemic.

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We have a lot of data that tells us that individuals who are virally suppressed do not transmit HIV, so we know that treating people with HIV, in fact, is a very powerful intervention that both prevents disease progression, but also results in people not transmitting the virus. We also know that 37.5 million condoms a year are distributed in our jurisdiction. We're never giving up on handing out condoms, because for about 35 percent of the population who use them consistently, they are an excellent strategy to prevent HIV transmission, as well as STIs and unplanned or unintended pregnancies. On top of all of this, we also have the next generation of HIV prevention, which is pre and post-exposure prophylaxis. So we have the scientific evidence that we have technologies and interventions that prevent HIV effectively, that are highly efficacious, and that are attainable for many people. Then the next step, the next piece of the recipe is political will.

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And this is a picture of Governor Cuomo at Gay Pride 2014 where he announced that New York State was going to be the first jurisdiction to end the epidemic of HIV. And so that announcement was really important, because it created an entire cascade of events, which I will talk to you about in a second. So the plan that Governor Cuomo unveiled was to bend the curve. So this is actually a model that Dr. Holtgrave from Johns Hopkins worked with the state to develop that demonstrates what ending the epidemic means numerically. I'll remind you that ending the epidemic means we're ending nothing. We're actually maintaining what we're doing and reinforcing the work we're doing in prevention.

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But numerically speaking, the way you end an epidemic is by reducing the number of new HIV infections that are entering the system as nature decreases the number of humans who are living with HIV in the jurisdiction, not because of AIDS deaths, but because they're getting old and people eventually pass away. What's important is that you will see HIV/AIDS deaths are also going down, and that's part of the plan. So you need to focus both on new diagnosis, as well as the health of individuals living with HIV. So ultimately, what happens when those two lines intersect, the big curve starts to bend. And by bending down, we actually get to the point where we are able potentially over time to extinguish the epidemic. So the magic number, the inflection point for the state based on this model, is 700 new infections in New York State. Of course, being overachievers in New York City, we're 80 percent of the epidemic, so we think our number is around 600. So if we need to get to 600 new infections or fewer by the year 2020 to achieve the goal. So how do we do that? So the governor and his smart staff of medical folk and scientists decided that there were three pillars that were important to pursue. Two of them will sound very familiar, and something that we've all been doing for many many years. The third one is new, less and less new every day.



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So the first part of the plan is, identify persons with HIV who remain undiagnosed, and link them to healthcare. We've been doing that for years. The second pillar is link and retain them in care, and get them on anti-retroviral therapy as fast as we can, because it keeps them healthy and prevents forward transmission of the virus. And then finally, 2014 this was a bit of a precocious statement, facilitate access to pre-exposure prophylaxis for HIV negative persons at risk for exposure. So what that really in effect is is blending all of the science, backed by community, pushed by political will, to the point that what happened is that we created a blueprint to end the epidemic. Once the governor announced this three-pronged strategy, this three pillar strategy, the next step was that he convened a task force.

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That happened in October 2014. We had the great pleasure of going to Albany during the late fall and winter to come up with a strategy. The task force met, and ultimately, after getting a lot of feedback from the community through SurveyMonkey and live, in person listening session, a blueprint was developed. And in a rare twist of events, everyone on the task force agreed unanimous acceptance of the blueprint. New Yorkers said yes, didn't disagree; it was shocking. Then, January 2015, the blueprint was released. And this is what it looks like. If you want to visit the newyork.gov website, you can actually take a look at it yourself. It has a lot of recommendations, and some areas that are more aspirational, but I'm going to soon show you that some of the aspirational work is accelerating, including a very exciting change in regulations that happened just last week, which is exactly a blueprint recommendation.

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So once we had the blueprint, that's when all the fun begins in New York City. So the blueprint comes out in January. In April, in front of the LGBT center just a few blocks away from here, the governor accepts the blueprint in its entirety. And then all the fun work begins, with the Department of Health, both city and state, working together, advocates from all over the city working together. And ultimately what happened is that New York City became the first jurisdiction with an ending the epidemic plan that then got an infusion of dollars behind it. So Mayor de Blasio said there's this plan, the community has spoken, and so here's 23 million dollars to become the biggest demonstration project that this can be done. Very exciting. 23 million dollars is what refers to what was given to the Department of Health. That's pretty much us alone. Realizing I'm not talking about what's happening with housing, I'll talk about that later. So an even bigger investment came from the governor and from the mayor together. So what happens when you get an infusion of money to end an epidemic is that you have to declare it an emergency again.

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So this is a map that the CDC has created. It's the estimated lifetime risk of HIV. You'll notice that New York is circled with a nice pink circle, and it actually looks a lot like the south. So despite the fact that we are star pupils in so many other ways, we just continue to have a potentially high incidence environment for HIV. So I show this to remind you that it is not what the future has to be, but what the future could be if we don't accelerate our work to ending the epidemic. And so from the Department of Health perspective, what that meant was activating our emergency system in a way very similar to when we



have an outbreak like Zika or Ebola. So we elevated HIV to the place of an outbreak again, because we had to move quickly. And the effect of that was that we were able to launch programs that would generally have taken two to three years to launch in less than a year. So who's ever worked in government before? Okay, we hired 123 people in one year. Yeah, so that's unheard of. You say that anywhere, you say that to a Fed, they literally fall off their chair, because that's not something that they've heard or seen. And so all the programs that I'm going to show you what happens when you accelerate a process and make HIV the emergency that it is in our jurisdiction.

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So let's talk a little bit about our environment, where we live now, and the background of why this is all completely possible. So I remember, back in 2014, when I would go around talking about bending the curve, I would go to other jurisdictions and people would kind of look at me like I was crazy. How is this giant jurisdiction, New York City, gonna be able to end their epidemic of HIV given the fact that we are a very big show. We are the epicenter; we were the epicenter of the epidemic. And so convincing people that we'll be the epicenter of the end of that epidemic is challenging. But let me show you why we're already on our way.

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This is the history of the epidemic looked at through surveillance, through what we've seen through lab reports. So what you can see is that something really important happened in the mid-90s. And I know you're eating dinner, but I'm gonna make you talk to me. What happened in the mid-90s? Sure, antiretrovirals- half the story; harm reduction was the other half. Syringe exchange for people who inject drugs, along with anti-retroviral therapy together resulted in those precipitous drops- those bends in the curve. New AIDS diagnoses crashed, HIV-related deaths crashed, and then the next curve that you see that sort of magically appears in the year 2000, when we actually get reports of not just AIDS diagnoses, but new HIV diagnoses, and you can see that that is also going down. But it's not going down fast enough. Why is that line going down? Is it because of the rapturously huge number of people who are adopting condom use? Actually, no. Condom use has been really stable in our jurisdiction, and that's great. People who use condoms, it's been very effective way to prevent HIV. But really, what happened there is, those beautiful blue bars that are soaring are people successfully living with HIV with suppressed viral loads. And by suppressing viral loads in our jurisdiction, we actually become, I think, one of the largest demonstrations that if you suppress viral load you prevent transmission, because that rate of new diagnoses going down is pretty much on the back of all the work that you people do taking care of patients living with HIV, and preventing them from having disease progression and having detectable viral loads. So bottom line is, I see four bends in the curve already. The reason that new HIV diagnosis curve isn't going down as fast as it should is because we have a stubborn element in there that's not going down very quickly, and it's HIV infections among men who have sex with men. So injection drug users, that epidemic has crashed from four digits a year to about 40. We see the same crash in maternal to child transmission, zero transmissions in 2015. And we also see similar declines in heterosexual transmission. So what is the strategy? The strategy is what we learned in the 90s we're pulling into 2017, we're blending biomedical interventions, anti-retrovirals, and harm reduction with a strategy to bend that curve the way that we did in the mid-90s. So we have syringe exchange for people



who inject drugs, and now for people who may not use condoms 100 percent of the time, we have PrEP. And so that is a harm reduction strategy that is akin to syringe exchange in the mid-90s. And so watch that curve bend. Now it's not all sunshine and light. We have significant disparities in New York City, and as my colleague Joann Warren from New York State AIDS Institute says, we can't end the epidemic of HIV only in some people. So we have a lot of work to do.

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So this is what your epidemic looks like in New York City from the perspective of the historic low, 2,493 new HIV diagnoses in 2015. So you see, the majority of them are male, just over 80 percent. Black and Latino individuals make up about 70 percent of the new diagnoses. You'll see that age is the disparity, 20 to 29 year olds are the belly of new diagnoses. What does that mean? Is it a disparity in 20 to 29 year olds? No. It's in adolescents. We're just seeing when they're diagnosed. So in case you haven't heard, this is when I do the newsflash; regulatory changes in New York State have occurred in the last week. HIV is now an STD, which means that adolescents can be treated for HIV without express parental consent, and also access pre-exposure prophylaxis. Thank you, ending the epidemic blueprint. So a complete change in the story from that perspective, and we have a short at addressing that bar. You'll also see that MSM are consistently the largest number of people who are diagnosed with HIV. But don't forget that that little transgender bar, the denominator's really small. So 40 new infections among transgender individuals is substantial. So that we don't have a good estimate of the denominator, there's still work to be done in that population. And then ultimately, the part that always surprises everyone, but doesn't surprise us in public health: HIV, like so many other conditions, the strongest indicator for new diagnosis is living in somewhere below federal poverty level. So there is an economic disparity that goes along with new HIV diagnoses.

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But here are some of the successes. So this is a visualization of perinatally infected children with HIV. So you'll see a couple of very important trends. Survival is great, but the most important thing on this slide is that square around 2015 that says that we had zero perinatal transitions in New York City. What worked here? Biomedical interventions, community mobilization, political will, and ultimately harm reduction- not telling people not to have babies, but instead, if you're pregnant, you can prevent transmission. So that's one definite win for biomedical intervention plus harm reduction. And then this is the part, this is the challenge.

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So this is the proportion, the number of new diagnoses looked at over time from 2001 that are attributed to individuals who report MSM behavior versus people who inject drugs. You'll see that we do have a stubborn IDU epidemic from the perspective that it's gonna be tough to get those last numbers down, but compared to 975, 76 is looking like we're going in the right direction. MSM, it's kind of a sine wave unfortunately, but what's really important to note is that the last year has a largest historical drop of HIV among MSM in the history of the epidemic- 10 percent. So we're on the way, but again, we need to sort of learn the lessons from people who inject drugs, in people who are sexually at risk for HIV, which is again, here's the mantra, biomedical intervention coupled with harm reduction. And so that's our strategy for MSM. Now I keep trying to convince you that we're going to be able to bend the curve,



and get to the end of the epidemic by 2020, and I think, you know, I had to convince myself. And so we did that by actually creating a projection.

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And so you'll see actual data versus projected data. So 2010 to 2015, these are the actual numbers of total new HIV diagnoses, as well as incident diagnoses, so ones we've used some algorithm to define as recent. So you'll see that these are our numbers in 2015, and when you extrapolate out to 2020, it doesn't seem particularly impossible that we're going to get there. So our goal of 600 looks like it's feasible. And the other important thing to note is that our projected drop from 2015 to 2016's actually less than our actual drop from 2014 to 15. So I think we're actually heading in the right direction. So it's a feasible plan. So now that I've given you some background about ending the epidemic, and given you some of the epidemiologic lay of the land in New York City, we'll dive into the strategy.

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But before we get into the new stuff, it's important to remember that we've been doing this work for a very long time. And when I say we, I mean we.

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So this is what it looks like when you map the current services the bureau of HIV onto the New York State ending the epidemic pillars. So you'll see that we've been working a long time to identify people with HIV. So our New York Knows program, our Bronx Knows, Brooklyn Knows, Queens Knows, have really resulted in significant numbers of people in New York City knowing their status. We'll talk about that in a moment. We've done a lot of work through Ryan White to preserve retention and suppression and linkage. And we actually launch our first PrEP campaign around the same time that the governor announced the plan to end the epidemic. So this has been on top for a while. So what is all this funding doing for us? What is the mayor's investment of 23 million dollars doing? It's taking this really effective fleet of battleships that have already made a significant impact on the epidemic, and adding a couple of new ones that fill gaps that we've not been able to fill using our standard CDC and HRSA funding. So how are we gonna do it?

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So it really focuses a lot on addressing disparity. The first step is to transform our STD clinic into destination clinics for sexual health services. So I will talk to you about the demise of the STD clinic and the birth of sexual health clinics. Not only do they have to stop focusing on disease, but they actually have to become efficient hubs of HIV treatment and prevention, the goal being making them the best in the country, if not the world: launching PrEP and repairing the nPEP delivery system in New York City, supporting priority populations using novel strategies, really focusing on New York City viral suppression, given the fact that it is such a powerful tool in prevention as well as in the health of the population, taking it from good, which I'll show you where it lands, to excellent, and then finally, getting rid of stigma by making New York City status neutral. It's a test and a pill, it shouldn't create a lot of duality between people. And so we're doing a lot to focus on that as well.



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Okay, this is my favorite piece- transforming New York City STD clinics into destination clinics for sexual health services. So let me convince you, I don't think it's a hard job that the STD clinics, or that's what they were called, those clinics there were actually the front line of ending the epidemic from the perspective of people who are at sexual risk for HIV. So first let's look at the story from the perspective of the people living with HIV.

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10 percent of all new HIV diagnoses occur in our clinics. So that doesn't sound like a lot, except when I tell you that there are eight of them. There are hundreds and hundreds of people who do HIV testing, and these eight clinics diagnose a lion's share of new positives. 20 percent of the new acute HIV infections are diagnosed in our clinics. That's substantial. We know, through our own data, that a lot of people living with HIV use this as a safety net, especially when they've dropped out of care, or are looking for access to care. We also know that there are other jurisdictions that are not necessarily at our scale, but who have demonstrated that if you launch immediate anti-retroviral therapy starts, where people are getting diagnosed, that people do really well, viral load suppression happens faster, and they do a pretty good job of staying connected to care. We also know that the data supports that this is not just a treatment intervention, but a prevention intervention. And bottom line, they're not too shabby to begin with. So our sexual health clinics, or STD clinics, already had a great track record of diagnosing people and connecting them to care. So what about HIV negative people? So we actually did a survey in our clinics and found that 65 percent of patients would start PrEP at our clinics. So we listened, and now they are. We also know from our own data that we see exactly the right people. We know that we diagnose a lot of syphilis, a lot of rectal STIs, and those are individuals who are at exquisitely high risk for HIV acquisition. And so we'll talk about what the strategy is there. We think that we see thousands and thousands of PrEP candidates annually. We have about 85,000 visits a year at these eight clinics, and I'll talk to you a little bit about how these STIs interact with HIV risk in a moment. The diversity of our clients is also multi-domain. It's not just racially diverse, it's diverse from the gender perspective and sexual activity. And then ultimately, our community said to us you need to make these clinics gateways to primary care and biomedical prevention. And so rather than make them like the episodic stop where you go for a drip, they become the gateway to a whole universe of the wonderland that makes us New York State and New York City, really innovative and great ways to access care. So this is why it's so important.

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These are data that focus on MSM. We're currently working on looking at women in the exact same way, given some recent analyses that we've done. But our data says that one in 42 men who have sex with men who walk into our STD clinics potentially could get HIV within a year. So historically, they did. So if you're an MSM and you walk into the clinic, one in 42 will find out they have HIV within 12 months. If you're in New York, MSM, and you have primary or secondary syphilis, one in 20 will be diagnosed within one year. If you are an MSM and you're diagnosed with anal rectal chlamydia or gonorrhea, one in 15 will be diagnosed with HIV within a year. So what used to happen in our STD clinics is, you have rectal gonorrhea or chlamydia, we're gonna give you some pills and a shot, see you back in about three months to get HIV testing. That's not what happens now. Now in these clinics, if you come in and you



are diagnosed with this, syphilis, gonorrhea, or chlamydia, or you come and have other indications, you're treated for your STI and you're offered PrEP on the spot. This is still launching. Not every clinic is doing it. But by the end of 2017, every STD clinic, formerly known STD clinic, will be actually doing this. And so we hope that will change the story of how we serve our population. Again, it's not all sunshine and light. So though they were the front line, one of the most important things that happened was we screwed up.

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And the way that we screwed up is that we closed the Chelsea clinic. It by the way looks beautiful now, I went on a tour of the newly renovated Chelsea clinic, wow. Soon to be opened, later in the fall. The clinic was closed, and it wasn't really discussed. And so the community got really mad at us. And it was a great kind of mad, because we took HIV activists, and guess what, they became sexual health advocates. It transformed the entire story. They became the most rabid defenders and the most rabid supporters of sexual health services in New York City, and that's really why I think we can look at Mayor de Blasio's investment in these clinics, and go back and thank Act Up Tag, Housing Works, and all of the other advocates that made this happen. So though we screwed up, it was probably the best mistake of our lives, from the perspective of getting these services initiated. I'm going to show you something else that really talks more about why these clinics are so important to the front line.

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So can you all see, I hope not anybody is red green colorblind, but can you see the green dots and the red dots? Yeah, oh good, lots of nods, you're paying attention. So this is where primary and secondary syphilis gets diagnosed in New York City among males. Do you see it? I see it, it's the big red dot. So when you look at this, you'll see the green dots are our sexual health clinics, and the red dots are everybody else. So you see, it's like a big mess. Now this is all males. So the clever folks in the Bureau of STDs said, what happens if we drop out all of the men of color?

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Our clinics disappear. You can't see the green dots anymore. Most of the diagnoses are happening in red dots. So white men are going to these venues, not using our venues very often.

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So when you drop the white men out, and you're only looking at men of color, you see that our clinics are actually where they're getting diagnosed with primary and secondary syphilis. So this is called data to prevention. So the idea of we can't find the population is interesting, when they find you every day. And so rather than creating new systems, we then embedded HIV treatment and prevention into this system to actually access these men. And I'll tell you that we did that by trying to make these clinics look better, feel better, and become destination clinics, not just places you have to go because you have a drip or something that burns. It's where you go when you want a service.

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And so we've expanded our hours, we've restored screening services for asymptomatic clients, resulting in a 60 percent increase in asymptomatic screens, which is great. Modernized our diagnostic, adding



HPV-related services, starting contraceptives in women. That's HIV prevention, because we get to talk about HIV and STIs. And for those of you who've never been to the clinic, you can discuss the wonderful welcome video that still says AIDS-related complex in it, that is soon to be yanked completely with a brand new video that actually boldly goes into late 1999. So we're trying. The other piece of this is that we use some of the ending the epidemic money to also rebrand. So STD clinics are no more, they're closed, they don't exist in New York City. Everything is a sexual health clinic, creates a completely different frame. And to celebrate that, you may have seen all of the ads on the subway, we're actually advertising our services to get people to come. And so that's just one example of an advertisement. And that nice person there is Sue Blank, who is the Assistant Commissioner of the Bureau of STDs who really made a lot of this happen.

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Okay, so now that we've made them pleasant places that aren't about disease, death, and destruction, the other pieces, making the sexual health clinics do better HIV work. And so what I mean by that is we had this vision of something called one stop, like making them a one stop for HIV treatment and prevention. And so we identified three interventions that seem to be evidence-based to launch in the clinics.

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The first was to provide a full course of PEP. So it used to be people would come for post-exposure prophylaxis, they'd get three days' worth of medicines, and then they would be on their way, good luck to find the remainder of your medicines. So we had ideas for them, and tried to navigate them, but it caused trouble. So now they're getting 28 day courses when they land. Immediate PrEP starts were also part of the story. So we wanted to identify individuals at risk for HIV, do rapid testing, and start them on PrEP point of service, and then get their lab work and follow up and then sort of pursue them more as necessary. And then also, based on the San Francisco rapid protocol, we developed something called jumpstART, which is immediate anti-retroviral therapy for people diagnosed with HIV offered at the point of diagnosis, with 30-day starter packs offered to them right there. So they start and get a full 30 days' supply of medicines. So pretty much that all falls into this biomedical evaluation and intervention piece of the package.

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So part of coming to this clinic is that someone's going to assess you for potential HIV interventions, PEP, PrEP, or treatment, depending on who you are and what your needs are. And it gets started same day. So no let's wait and think about it, oh you have TB, we'll treat it someday. No, you have HIV, it's an infection, we're going to start you, you're at risk for HIV, we're gonna get the best test that we've got and then we're going to start you and see you again. But it's not just about starting people on meds and then putting them out there and saying good luck. They meet with a social worker, and that social worker's job is to identify what their determinants of health are, and what we can do to actually improve their risk of disease progression or HIV infection. And we also do benefits work, trying to get them connected to insurance. And so that happens all in the STD clinic, sorry the sexual health clinic, to create a neat little package to deliver to your doorstep. And who delivers them to your doorstep? Our navigators. So you have this progression, we see what biomedical need you have, we connect you to



social work to figure out how we're going to support you, and then we're gonna assign you to someone who's gonna take you to your longitudinal care delivery site, and that means you. So thank you for taking care of them in advance. And this is what we've seen so far. So on Halloween we launched two pieces of the plan,

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PrEP navigation, not PrEP starts, but just navigating people to where PrEP services are. This data actually goes through the beginning of March. So between October 31st and the beginning of March, over 1,300 people were navigated to PrEP. Since Halloween to the beginning of March, almost 400 patients were started on PEP, getting the full 28-day course, and about 61 percent of them were black and Latino. JumpstART was launched at the end of November. It was in one clinic only; we now have five more on board. The data from the one clinic is that 47 people were jumpstARTed, and 68 percent of them were black and Latino. And then PrEP initiation, which started at the end of December, started in one clinic only, now its second clinic has actually been kind of a blockbuster in that clinic. 113 PrEP starts, and unlike the national data, which would say that 10 percent of people on PrEP are black, 12 percent are Latino, 67 percent of the people that we've started are black and Latino. So the myth of the impossible to find population has been busted in New York from the perspective of PrEP and PEP. So we are definitely finding the right people. Now we know who they are, and are going to be able to follow them longitudinally, so soon we'll be able to give you some follow up about viral suppression and adherence to PrEP and all of that. So watch us as we progress.

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Okay, so it's not just about PrEP in our clinics, it's also about PrEP in the community, and also about fixing nPEP.

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So we launched something called the PlaySure PrEP Network, these all exist now. These are funded organizations that do what they do best, and what we did is we kissed them with PrEP. So if you're a New York City supported testing site, and you're really great at doing HIV testing, if you have someone who's negative, those individuals who are supported by this grant will actually have a PrEP navigator who will screen them as PrEP candidates, and will refer them either to a CBO or to a PrEP clinic where they can start meds. So let's say that you test negative for HIV and you have an issue with domestic violence. Well you slide across the PlaySure Network to a community-based organization that can help you with that. That network also has a navigator, and someone who will then eventually, when you're ready, bring you down to New York City's PrEP supported clinic. And then what happens is, you start the intervention, and they work to get you insured or whatever else you need to be able to maintain you on PrEP, remembering that New York State has PrEP assistance program, which makes life a lot easier from the perspective of PrEP support. But in New York, one of the things that I think is really important is you can't just support PrEP. Because PrEP is for a certain sort of cohort in the population who may not use condoms consistently. So what do you offer individuals who are consistent condom users? And the answer is PEP. So technically, in my mind, and I think in our Bureau's mind and our Department's mind, PEP is actually supports condom use, because that's what happens when the condom breaks or you have a slip-up. And so I think everybody who has ever done this can acknowledge that PEP is a giant



disaster, from the perspective of the emergency element. It's hard to start, hard to get paid for, it's just really complex. And so we listened to the feedback that we got from our providers and from our community, and we've launched two things.

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The first is a 24-hour PEP hotline. It's clinician staffed. You call the number, and what happens is you talk to a clinician, they assess you for your exposure, and then they call in the starter pack of post-exposure prophylaxis to a local pharmacy that's 24 hours before you get your HIV test, and it's free of charge. So kind of pushing it into plan B zone. So making it the emergency that it is. So the next step of that is that they get linked to a PEP center of excellence. And so we've also funded one PEP center in each borough, Staten Island pending. And it's an urgent care model where people can walk in and start post-exposure prophylaxis. And it's immediate start regardless of insurance status. The deliverable is that they need to be on PEP within 30 minutes of hitting the door. That's one of the ways that the contract is being evaluated. And then ultimately, that means PrEP linkage. So we're trying to see if we create a system that works, if people will actually use it. The answer is so far so good. Newsflash as well, New York State has a law that's changed where pharmacists will soon be able to provide seven-day starter packs with the patient non-specific order, which means that I'll be writing a prescription for all of New York City, and anyone can pick it up. So it's coming soon.

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Okay, so now leaving nPEP and PrEP, priority populations. So one of the things that's really unique about the ending the epidemic strategy that New York State unveiled is that there's a lot of emphasis on populations, and a lot of emphasis on how to support the populations and their other drivers that sort of lead them to potentially not good outcomes for HIV.

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And so one of the things that we did that is really exciting is that we figured out a way to fund grassroots transgender led and focused organizations. We are not funding them to do HIV testing. We are funding them to become better organizations. And once they become stronger organizations, their service delivery elements begin. So once they're up and running, they're gonna be able to actually then provide the services that they wanna provide, and not to surprise you, but HIVs not even like, in the top 10 of what they're interested in providing. Housing, employment, anti-stigma work- that's really what they're doing. It's all HIV prevention. What's not up here is that we actually are about to announce funding very similar to this, where we've actually funded organizations that focus on black MSM to do the same thing. There's a vacuum of these organizations in New York City, and so we're hoping to get some of these grassroots organizations up and running to become more powerful and have higher efficacy in our city.

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We also identify increases in methamphetamine use in our national behavioral health survey, as well as in our local sexual health survey. And so we used some of the ending the epidemic money to fund GNHC and Housing Works to join together to create something called Recharge, which is a harm reduction based strategy at methamphetamine. So it's a combination of behavioral interventions, and we're



working with a medical advisory board that is taking us down the path of potentially having replacement therapy for methamphetamine using other drugs, as well as other psychotropic medicines. So it's the first of its kind in New York City to have a municipally funded methamphetamine program. We did a needs assessment and saw that there was still a huge need for harm reduction focused, non-abstinence based meth programs, and so that's what we developed with our amazing partners.

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We're also working to improve the health equity of LGBTQ people. We support a health equity coalition. We're working to do a lot of CME around the city, focusing on LGBTQ people. And then as Pride 2017 rolls along, you're going to see the launch of our New York City LGBTQ Healthcare Bill of Rights that is going to be coupled with a media campaign reminding people to be honest with their doctors and other providers, and if they're not able to speak to their doctors and other providers about sex, drugs, and rock and roll, dial 311 and we'll find you a new one. Just sayin'. So it's really an exciting switch. The Healthcare Bill of Rights is not just a piece of paper, it's actually an interactive list of where people can actually access services that are vetted by New York City, so we're actually vetting the places that we're sending people to.

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Okay, so viral suppression, getting from good to excellent. Attention test takers, please take a look.

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New York City's viral suppression is 74 percent. So when you look, many people in New York know their status. This is actually based on a sero-survey that happened in the Bronx. 94 percent of people that have HIV, we believe, in our jurisdiction, know their status. 86 percent are retained in care, 82 percent are on anti-retroviral therapy, and that brings us to 74 percent. Seattle says they're the first city to reach 90 90 90. That's because we tested too darn well. It's true, we're 94, 87 percent on anti-retroviral therapy, 91 percent virally suppressed. So we have to get a couple more people on anti-retroviral therapy, then we can be the second jurisdiction to be at 90 90 90. So though we're doing well, it's not over yet. Like we have a lot of work to do to improve viral suppression, because that last 16 percent is going to be rough. And so we have a lot of strategies.

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One of them is upscaling Housing Works' Undetectables program. So this is a kitchen sink strategy to supporting viral load suppression. It's multi-domain, there's social elements, medical elements, behavioral work. It even goes to, not Department of Transport, to directly observed therapy and beyond. But one of the things that's unique about it is there's also financial incentives for viral suppression. So individuals who are virally suppressed, who access multiple resources qualify for the program, and maintaining their viral suppression means a 100-dollar incentive every quarter. And so watch this carefully, because it's a real world implementation of this. I also get to be a cartoon character. So they have social marketing that focuses on, they have a little cartoon, a little comic book, and there's lot of characters, and so they made me the wisdom spreader, which was cute. And I don't have that outfit, I wish. Anyway, sure, who said that? But it's not only about the undetectables, like we were actually sciencey too, and you're going to hear probably a little bit about work like this from Dr.



Little, who in fact is our collaborator for this element of what we're doing. Isn't that fun? So we actually built the capacity in our public health lab to do resistance testing. So we do genotypes. Right now we're only doing resistance testing in our newly diagnosed individuals in our sexual health clinics, but we're expanding to other clinics very soon, and the goal is ultimately to offer free resistance testing to all newly diagnosed New Yorkers throughout the whole city. So it's going to take us awhile to scale up, but it's coming.

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So now the lab is able to do real time resistance testing, which means that we in real time get the viral sequence. We send the viral sequence to Dr. Little, and the folks in San Diego then help build clusters of where people are getting diagnosed with HIV, and we're able to identify individuals who are not virally suppressed who are in growing clusters. And what we do is re-prioritize our field services response, so we go out to see them first. So if you're in a growing cluster, and you're virally not suppressed, whether you're in care or not in care, what happens is our field services list gets rearranged, so they're our highest priority. More bang for your buck. You prevent HIV progression by getting them into care, and you also prevent transmission. And so it's a very sort of science approach rather than sort of doing it blindly.

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But it's not all about that kind of science. We know that housing in New York City is healthcare, especially for HIV. Homelessness, unstable, or inadequate housing we know is linked to higher viral loads and failure to attain viral suppression. So our community, as you can see lots of them are protesting and asking for support in this picture, approached the governor and the mayor and asked for us to expand HASA. So for those of you who live in New York and know about the HIV/AIDS Service Administration, to get into housing through HASA you had to reach a certain financial threshold in terms of what you were earning, but also you had to have disease progression. Your T cells had to drop below 200, you had to have secondary syphilis, PCP something. So that's gone. So if you have HIV in New York City and you make under a certain threshold of money, you qualify for HASA. The idea being that if we can get people housed, we're going to have better outcomes. And so we don't have a lot of data about this yet, because it doesn't belong to the Department of Health, but since fall 2016, ending around the beginning of December, 1,000 clients were housed who would not have previously qualified. I don't know where that number is going, but it's going to be a lot higher, I would imagine, fairly soon.

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Alright, status neutral.

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So I think that everyone in this room probably believes that prevention now, at least, has a treatment element. Pre-exposure prophylaxis is a program, tenofovir/ emtricitabine is the drug in that program that people use to prevent HIV, it's a comprehensive package. And we know that in New York City, we're seeing significant increases of PrEP uptake. We're estimating about 30 percent of MSM are on PrEP now, based on our surveillance.



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We also know that treatment is prevention, New York City being the first jurisdiction to sign on to U equals U and if you're around on Sunday between three and five o'clock, come to the AIDS memorial, because there's a dance party celebrating another large jurisdiction that sounds like New York that will also be signing on, not the city. So come and visit us and celebrate that. So we know that treatment is also prevention, and it's effective both in preventing transmission and disease progression. So we decided to put them all on one continuum. So rather than have like an HIV continuum of care only, and PrEP continuum, we slammed them together, and then we realized that we were totally wrong.

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Because one of the things about this continuum is, there seems to be an end game. So the end game on the HIV side seems to be viral suppression, and the end game on the prevention side seems to be PrEP, pills and mouth only. Like very cold biological intervention only. Well that's not actually what we're supporting in our ending the epidemic work. So it ends up being more of a cycle, and what we've done is really revisualized the continuum, not into something linear with an end game that involves giving someone a pill, but an end game that involves engagement in either treatment or prevention. So let me just walk you through it really quickly. So someone gets tested for HIV, their result is positive, they go down the cycle on the treatment engagement side. You'll notice the stops on the cycle are similar to the regular continuum of care that we always show. But we believe that to actually get to the end point of viral suppression, you have continually prime the pump with quality care to maintain engagement. And the side effect of this treatment engagement is that peoples' viral load becomes suppressed, they stay healthy, and they don't transmit. So what if there's an HIV negative test in someone who potentially is still at risk for exposure?

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Well they slide down to part of this cycle into prevention engagement. And what maintains them in engagement is high quality sexual health services, that keeps their HIV testing and STI testing up to date. The side effect of prevention engagement is that people who need to be on PrEP will be on PrEP, which is amazing. So the reason that we did this is it really reflects what we're doing with our programming, and ultimately the HIV test result is irrelevant, because at the end the virally suppressed individual and the person who is at risk for HIV and on PrEP are from the perspective of public health identical. They don't transmit, and they don't get HIV. So there's no reason for us to treat them as separate individuals. So this is our strategy at not only addressing what we want our programs to look like, but also our strategy for trying to address stigma in our jurisdiction. There's an important arrow up there which I'd like to emphasize, which is the pink arrow of people who go from the prevention engagement side, to the treatment engagement side. Very often, people say that when someone has a breakthrough in HIV infection when they're on PrEP it's a PrEP failure. I think that may be a drug failure, but PrEP is a program, not a drug. The success stories that actually come from these sero-conversions is that all of them are virally suppressed. All of them are getting engaged, because they are used to the system. And so the idea that there is an easy segue from being at risk for HIV to prevention, and potentially then to treatment if necessary is a part of the story. Because the only bad HIV test is the one that's never been had. Every other test result is good, and we have to believe that to sort of deal with the stigma. And so all that test is, is a gateway to good services in either direction.



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- [Voiceover] We all love to play, but we've gotta play sure. So whatever your pleasure, or wherever you are, always be ready with the right protection combination that works for you. New York City's made it easy with the new NYC PlaySure kit. Carry PrEP medications for HIV protection, HIV treatment, and condoms for added protection from HIV and other STIs, or whatever works best for you. NYC plays sure, we're healthy and plan on staying that way.

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- [Demetre] Okay, so I'll have to bring you some kits to make you happy later, but we have a piece of swag out in the world that is a combination of a condom, pill box, and lube container that we hand out all over the city. About 100,000 of them have been distributed, and it sort of makes the message that you create a combination prevention strategy that works for you.

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So in terms of ending the epidemic, our strategy is really one that focuses on love and respect. And some of our lessons from doing this is that you have to dream big and take risks. Who would have thought two years ago that anything like this was gonna happen? Like it's shocking how much has changed in a very short amount of time. It's important to remember that government and community advocates must work together and create a united narrative. Our voice is one now, we don't have different agendas; it's the same agenda. HIV programs can't be greedy. Sexual health needs to own HIV prevention and treatment. We didn't take all the money in the Bureau of HIV, we lobbied for it to go to STD, because they're the front lines. So it's really important to remember that we work together with other areas. We need to build services where people are. We don't have to reinvent the wheel, because people find us very often where they want to be seen. HIV is a symptom, not the disease. So you'll see that with our priority populations, it's not all about HIV, it's about the other stuff they're worried about: jobs, housing, food access, et cetera. It's also important to win this game to remember that we're still in outbreak times. 2,400 new infections a year is no good. So it's an emergency, and we have to address it in the same way, and then ultimately, when you look at things in a status neutral world view, you can melt stigma away while supporting your population to stay healthy and happy. Thank you so much.

[Video End]