



Mayor Muriel Bowser

# 90/90/90/50 Plan

Ending the HIV Epidemic in the District of Columbia by 2020



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Solving DC Problems

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# Executive Summary

Despite years of progress in the understanding and treatment of HIV/AIDS, the District of Columbia still is in the midst of an HIV epidemic. In fact, more than 13,000 people in DC are living with HIV, which is equal to 2.0% of the District population.<sup>1</sup> This percentage far surpasses the generally accepted definition of an epidemic, which is 1% of the population. For some groups in DC the situation is even more severe: 4.6% of African-American men, 2.1% of Hispanic men, and 1.9% of African-American women are living with HIV.<sup>2</sup> A recent survey by the DC Trans Coalition suggests that as many as 20% of transgender people in DC may be HIV-positive.<sup>3</sup>

In 2005, DC Appleaseed, with support from the Washington AIDS Partnership, released a report, *HIV/AIDS in the Nation's Capital*, urging the District government to do much more to address the HIV crisis, and for the next nine years DC Appleaseed issued report cards pushing for further action. During that time, the District achieved huge improvements in its testing, treatment, and prevention policies. Even though these percentages are unacceptably high, the District has come a long way in arresting the spread of HIV. Over the last eight years, the number of new HIV infections has dropped by 72%—from a high of 1,343 in 2007 to 371 in 2015.<sup>4</sup>

Now is the time to take the District's response to the next level and embark on a credible plan to end the epidemic in Washington, DC. The District has already developed the key tools it needs to do so and can build on past success. For example, it has greatly expanded HIV testing in the community, developed a condom distribution program that is a national model, and created an innovative Red Carpet Entry Program to get newly diagnosed residents into treatment. DC has also implemented a needle exchange program and other harm-reduction strategies to prevent transmission through injection drug use. Due to great medical progress, DC can now also take advantage of proven interventions to greatly reduce infections attributable to sexual contact, such as Pre-Exposure Prophylaxis (PrEP) which has been shown to be up to 90% effective in preventing transmission of HIV when used correctly.

Given these successes and tools, and based on the latest available data and expert advice, the District government determined that it was time for the city to take a major step forward to actually end the epidemic. In 2015, Mayor Muriel Bowser and the DC Department of Health therefore announced a partnership with DC Appleaseed and the Washington AIDS Partnership to develop and implement such a plan. This plan is called the "90/90/90/50 plan"—named for the epidemiological targets within: 90% of all District residents with HIV will know their HIV status, 90% of District residents living with HIV will be in sustained treatment, and 90% of those in treatment will reach "viral suppression." Ultimately, these and other efforts will lead to a 50% reduction of new HIV cases by 2020. These goals align with similar targets set by the United Nations and the Obama Administration's Office of National AIDS Policy, as well as similar plans in jurisdictions across the country. Making sure that nearly all people with HIV are in treatment and virally suppressed will lead to improved health outcomes for those who are HIV-positive. These important objectives—ending the epidemic in the District *and* improving the lives of those who have the virus—can be achieved with a rigorous implementation of the 90/90/90/50 plan and the cooperation of all stakeholders.

The DC Department of Health, DC Appleseed, and the Washington AIDS Partnership developed this plan as the vehicle for bringing an end to the epidemic. The plan includes the steps that are needed to meet each of the four elements. This is also a call to action for all District residents. Medical providers, advocates, and community members must continue to educate themselves about HIV, reduce stigma, and support effective care and prevention strategies. These policies and challenges correspond to each of the four goals.

### **GOAL 1: 90% of HIV-positive District residents know their status**

The first step of HIV treatment is timely diagnosis. To meet the goal of 90% of District residents knowing their HIV status, the plan calls for increases in targeted HIV testing in addition to the successful routine testing program already in place. The District government will encourage its grantees to target testing to HIV-negative individuals at elevated risk of infection. District residents should also engage their own social networks to encourage continued testing and education. All healthcare providers will be called on to step up their testing in all medical settings.

### **GOAL 2: 90% of District residents diagnosed with HIV are in treatment**

Until there is a cure for HIV, patients must maintain medical treatment to stay healthy. To meet the goal of 90% of HIV-positive District residents being in treatment, the plan examines how to improve access to healthcare. The plan emphasizes the importance of peer education, community health workers, and peer navigators who can help residents access services and effectively engage those who have fallen out of care. The plan calls for an examination of the DC Healthcare Alliance's requirement that participants recertify every six months. Providers have noted this requirement can cause the most vulnerable to lose insurance and fall out of care. And the plan promises new policies that will improve data sharing, to help providers identify and locate patients who have fallen out of care.

### **GOAL 3: 90% of District residents diagnosed with HIV who are in treatment reach viral load suppression**

Research has confirmed that when HIV-positive individuals adhere to their prescribed treatment regimen and maintain viral suppression—that is, the number of copies of the virus in their blood stays below 200 per microliter—their health outcomes are vastly improved, and it is highly unlikely that they will pass on the virus. This is sometimes called “treatment as prevention.” This strategy will drive a continued reduction in new infections. As Dr. Anthony Fauci of the National Institutes of Health explained at DC Appleseed's annual awards reception in 2015, as ever larger percentages of the population can no longer pass on the virus “the mathematical model tells you that the epidemic is going to burn itself out.” To meet the goal of 90% of District residents in treatment reaching viral suppression, this plan examines strategies to enhance access to medical services, provide supports for persons to maintain their treatment, and address socio-economic conditions that may cause lapses in treatment. For example, the plan recommends increased access to stable housing for people living with HIV. This section of the plan also examines how federal funding provided through the Ryan White Act can be better used to increase access to care.

## GOAL 4: 50% reduction in new HIV infections

According to the statistical models created in conjunction with this plan by researchers at the DC Department of Health, The George Washington University, and Howard University, a 56% reduction of new HIV cases is possible by 2020 if the District (1) continues the effective policies that have been implemented over the last 10 years, (2) meets the 90/90/90 targets described above, and (3) increases the number of District residents taking advantage of preventive interventions—especially PrEP therapy. This plan details policies that will increase access to PrEP, especially for those groups at the highest risk: men who have sex with men (particularly, African-American and Latino), transgender women of color, and African-American heterosexual women, as well as expanded access to post-exposure prophylaxis—a course of drugs that can prevent infection after exposure such as unprotected sex with an HIV-positive partner. The plan calls for improvements in youth education and expanded funding for the very successful syringe access programs in DC.

This is an ambitious and optimistic plan. But it is achievable. Dr. Fauci has called DC “the prototype of the true feasibility of this goal of ending the epidemic as we know it right now.” Mayor Bowser and her administration are committed to implementing evidence-based and progressive policies that will improve care for people living with HIV and create access to prevention tools to stop new infections. In their role as non-governmental partners, DC Appleseed and the Washington AIDS Partnership are committed to working to support the District and to monitor progress toward these goals. Ultimately, to succeed, this plan will require support and buy-in from all District residents, from neighborhoods to doctor’s offices, and across government agencies. With a community more resilient and resourced, DC can capitalize on this progress and leadership to become a model for the country.

# Introduction and Background

## Now Is the Time

In 2005, with the release of the DC Appleseed report *HIV/AIDS in the Nation's Capital*, DC Appleseed, the Washington AIDS Partnership, and the District government began working together to address the HIV epidemic in DC. That report compared the HIV epidemic in DC to the devastation in third-world countries. In 2005, 929 District residents were newly diagnosed with HIV, bringing the total number of people living with HIV in the District to approximately 11,517, or nearly 3% of the adult and adolescent population.<sup>5</sup> A generalized HIV epidemic is a situation in which more than 1% of the population is infected.<sup>6</sup> By any measure, the District was not serving those living with HIV, was not fully informed and reporting on the scope of the epidemic, and was not fighting effectively to prevent new infections. The 2005 report called for a serious overhaul of nearly every aspect of the District government's response to the HIV crisis. DC Appleseed spent the next nine years issuing periodic report cards monitoring the success of the steps taken by the District government and other stakeholders.

Today the District government has made great progress. People living with HIV are living longer, healthier lives. There were 238 HIV-related deaths documented in 2005, compared with 105 in 2012, the last year for which complete mortality information is available. The number of newly diagnosed HIV infections among District residents has dropped from an all-time high of 1,343 reported cases in 2007 to a documented 371 cases in 2015, marking a 72% decrease over that time period.<sup>7</sup>

While there have been great strides, ignorance about HIV and the stigma associated with the virus remain. In a recent DOH survey, 18% of District residents reported they would not tell their friends if they were diagnosed with HIV, and 11% feared—incorrectly—they could contract HIV during regular household activities if living with someone who has HIV.<sup>8</sup> A different survey showed that in 2013, almost 80% of District resident believed “most people in DC would discriminate against someone with HIV,” and over 20% believed that “most people in DC think that people who got HIV through sex or drug use have gotten what they deserve.”<sup>9</sup>

Further, a 2012–2013 study of over 3,500 health professionals in the District found that 40% failed a test of their knowledge that included questions on HIV treatment and bio-medical interventions.<sup>10</sup> According to a survey by the marketing firm that led DOH's media strategy, more people in DC get their information about HIV awareness from media campaigns (30%) than from their doctor or healthcare provider (24%).<sup>11</sup> This underscores the need for healthcare providers to be more actively involved in educating their patients.

Paradoxically, the advances made to decrease the spread of HIV and improve treatment for those with the virus actually can undermine the urgency of continuing to fight against the epidemic. As HIV has come to be viewed as just another chronic condition, the sense of urgency and focus has waned.

The environment in which HIV medical care and services are provided has changed, particularly in health insurance. For most of the epidemic, the portfolio of services was supported primarily



through federal funding for HIV care, treatment, and support services through the Ryan White CARE Act program, HIV prevention and testing from the U.S. Centers for Disease Control and Prevention (CDC); and housing assistance through the Housing Opportunities for Persons With AIDS (HOPWA) program. Yet, the District has been in the vanguard of increasing health insurance coverage of its residents. With the adoption of the Patient Protection and Affordable Care Act (ACA) in 2010, the District was one of the first in the nation to further expand eligibility for the Medicaid program and establish its own health insurance marketplace. The District has also recognized that with growth in the city there has been a strain on the availability of resources like affordable housing for all lower-income District residents. While dedicated HIV funding has either decreased or remained level, there needs to be a shift to leverage the greater resources in health insurance, workforce development, and housing investment for persons living with HIV. This will require a broader and more collaborative approach among all sectors in the District: government, community, research institutions, foundations, and the private sector. This opportunity must be seized now to accelerate the District's advances. As Washington AIDS Partnership Executive Director Channing Wickham noted in a March 2016 *Washington City Paper* series, "now is not the time to slow down."<sup>12</sup> In fact, now is the time for stronger action.

Two important recent medical advances equip the community for the first time to end the HIV epidemic—globally and locally in DC. As Dr. Fauci outlined in the *New England Journal of Medicine* in December 2015, properly supervised, sustained treatment can both help prevent those who have HIV from passing it on and prevent those who do not have the virus from acquiring it.<sup>13</sup> Rapid initiation of and sustained antiretroviral therapy (ART) for those who are diagnosed with HIV can lead to a reduced viral load level—a measure of the concentration of virus that is in a patient's blood; and once that "load" is sufficiently reduced, it becomes very unlikely that they will pass the virus to someone else. This is called "treatment as prevention."

At the same time, research has shown that a modified regimen of ART for those who are at risk but do not have HIV—Pre-exposure Prophylaxis, or PrEP—can prevent transmission of the virus at very high rates when taken consistently and under proper supervision; this is an important new tool for District residents who may be at increased risk for HIV. The District must effectively implement these tools—treatment as prevention and PrEP—and ensure that all DC residents living with or at high risk of acquiring HIV have access. As Dr. Fauci said, "[t]he science has spoken. There can be no excuse for inaction."<sup>14</sup>

Ending the epidemic will require more than clinical advances. It will require tackling a range of social and health factors, such as behavioral health (mental health and substance use), housing stability, economic opportunity, and stigma. It will also require a systematic implementation of all the tools proven to be successful in addressing the epidemic. And it will require engagement of the entire community in the implementation of evidence-based tools and strategic investment.

This is why in June 2015, Mayor Bowser formalized the public-private partnership among DC Appleaseed, the Washington AIDS Partnership, and the District government and announced the project that would lead to a plan to end the HIV epidemic in DC. The goals of this plan create a "cascading effect": As more District residents know they have HIV, more are likely to be engaged in care. As more of those with the virus are in care, more are likely to reach viral load suppression. When more of those in care reach viral load suppression, not only will their own health be improved, but fewer will transmit the virus to others. When fewer HIV-positive

District residents are passing on the virus, when more people living with HIV have access to the support systems they need to stay in treatment, and when more District residents who are at risk of infection understand the prevention tools available, there will be ever-larger decreases in the number of new transmissions over time. As the models presented in this report show, by implementing the tools described in this plan and meeting the 90/90/90 goals, the District can achieve and exceed a 50% reduction in new HIV cases by 2020. Continued implementation of the tools and the steps that underline the 90/90/90 goals will thereafter lead to ever larger decreases in new HIV infections and, eventually, an end to the epidemic in DC.

## Plan Development

In June 2014, New York Governor Andrew Cuomo announced plans to develop what would become the state's *Blueprint to End the AIDS Epidemic*—a plan to end the epidemic in the state by the year 2020, measured by a decrease in the total number of people living with HIV. That year, UNAIDS, the United Nations organization for HIV/AIDS, announced its own 90/90/90 goal for the year 2020. At the end of the same year, DOH, DC Appleseed, and the Washington AIDS Partnership started discussions about a DC plan to end HIV. Mayor Bowser and Dr. LaQuandra Nesbitt, Director of the Department of Health, endorsed the proposal, which led to the announcement in June 2015 that the three partners would work together to produce the plan.

By the summer, stakeholders created a project framework and work plan which included a planning phase (July–September 2015), a research and outline phase (September 2015–February 2016), and a synthesis and vetting phase (February–June 2016). Three work-groups—Care Practice, Community Engagement, and Prevention—comprising DOH staff and DC Appleseed and its partner law firms with participation from HIV experts were established to devise and prioritize:

- Goals and strategies
- Programmatic and data components
- Policy/statutory/regulatory change(s)
- Mechanisms for partner and stakeholder consultation
- Cost modeling and studies
- Demonstration projects
- Timelines
- Targets and anticipated outcomes

A key component of the development process was community engagement and input. Qualitative and quantitative data were collected via questionnaires, town halls, focus groups, and key informant interviews. Feedback on important elements of the plan and priority populations was obtained and integrated into the plan.

Through its academic partnership, DOH, the Milken Institute of Public Health at The George Washington University (GWU), and Howard University started the development of modeling (discussed below) to determine the metrics to fulfill the 90/90/90/50 goals. DC Appleseed had

in-depth conversations with government officials in three jurisdictions—New York state, San Francisco and Washington state—that had developed or were undertaking activities to develop an “ending the epidemic” plan.

DOH and DC Appleseed prepared and administered a questionnaire at the 2015 U.S. Conference on AIDS. The survey formed part of the effort to seek and identify factors that would inform the *Ending the HIV Epidemic* planning and implementation process in the District. The questions were designed to gain knowledge of the experiences, strategies, and lessons learned in HIV elimination/reduction from individuals responsible for program planning, as well as individuals who utilize and/or deliver HIV services.

DC Appleseed and DOH conducted community engagement sessions on December 15, 2015 and February 11, 2016 to develop stakeholder recommendations. The structured sessions posed five questions in small groups:

1. What aspects of the District government’s response to HIV are working?
2. What populations are not being served sufficiently or at all?
3. How can the District government improve access to HIV care?
4. How can the District government improve general outreach, to increase knowledge of services available?
5. What community assets, resources, or programs should the government work with or learn from?

The discussions were robust and identified direct health interventions and social factors, particularly housing, that would contribute to achieving the District goals. The valuable insights from these sessions have been incorporated into the plan.

DC Appleseed also conducted key informant interviews with community stakeholders and subject matter experts. The framework of the interviews was similar to the engagement sessions, though tailored in many instances to focus on different populations and program approaches. Those recommendations have also been incorporated into the plan.

The project team extends much appreciation to everyone who contributed to the development of the plan.

## Plan Organization

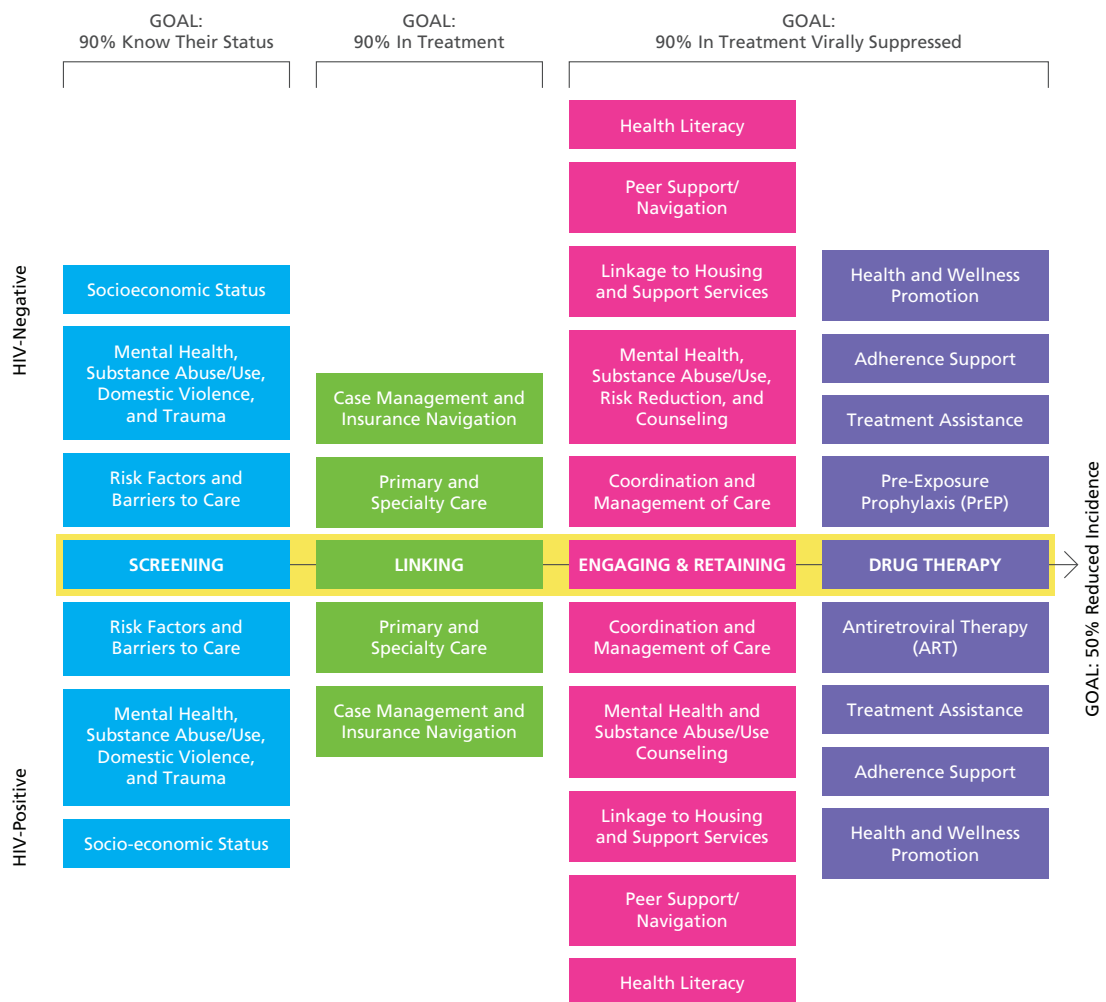
While the District government has the biggest role to play in implementing the plan, there are important critical roles for many others to play. The 90/90/90/50 plan includes tasks generated from evidence-based and evidence-informed best practices used in the HIV field and community. It also contains demonstration projects based on promising practices that could be implemented and evaluated within a short period and later scaled up to meet the plan goals. The tasks of the plan are aligned to the 90/90/90/50 goals that give the plan its name (see page 24 for a listing of all plan tasks).

The HIV Care Continuum, or treatment cascade, was developed by researchers in 2011 and is widely used by public health agencies and experts analyzing the state of the HIV epidemic. The

traditional continuum outlines the stages involved in achieving viral suppression—testing and diagnosing, linking to care, retaining in care, and getting on and sustaining use of antiretroviral therapy—for individuals living with HIV. Though the continuum is typically viewed as an “engagement in care” model, the District also uses a continuum to describe the steps involved with decreasing HIV acquisition and transmission—the Prevention Continuum. Together, the Prevention and Care Continuum illustrates the stages of HIV prevention and care along a continuum that includes screening, linking, retaining and engaging, and drug therapy, as well as the overarching goal of each strategy. Most of the activities and interventions designed to link and maintain HIV-positive individuals in care are also effective approaches to help keep individuals HIV-negative.

The plan for reaching each of the 90/90/90/50 goals includes not only the steps needed to reach the goals, but also methods for monitoring progress. The drafters of the plan intend that it be implemented through a transparent, cooperative, and ongoing process, including all DC residents.

### District of Columbia HIV Prevention and Care Continuum — May 2016



# Plan Impact

Policies adopted by DOH to prevent HIV transmission are improving community health behaviors, access to care, and HIV-related health outcomes, as evidenced by the continued decline in the number of newly diagnosed HIV cases within the District in recent years. Building on this momentum will require the continuation and enhancement of many existing local HIV prevention and care efforts, as well as the implementation of new initiatives and evolving bio-medical prevention strategies.

As part of evaluating the feasibility of achieving the 90/90/90/50 plan targets and developing an understanding of the requisite level of scale-up, DOH partnered with faculty from the College of Pharmacy at Howard University and the Milken Institute School of Public Health at The George Washington University to develop a predictive model for estimating the potential impact of the plan. DOH and the researchers first developed a model to estimate the number of new HIV diagnoses among District residents in 2020 assuming the 90/90/90/50 plan goals related to HIV diagnosis, treatment engagement, and viral suppression are met. The baseline parameters for this model were informed by DC's HIV disease surveillance activities, as well as information on the subset of the HIV-positive population receiving services through the Ryan White Program. Additionally, information from peer-reviewed research on patterns in HIV transmission and the efficacy of HIV prevention strategies was used to assess the impact of scaling up HIV care and prevention activities. The resulting model provided a basis for understanding current gaps to achieving 90/90/90/50 plan goals and the potential impact of addressing such gaps.

To measure progress toward the 90/90/90/50 goals going forward, DOH then needed to determine starting points or baseline values for several parameters: people living with HIV; of those living with HIV, the number who are diagnosed; of those diagnosed, the number who are “in treatment”—defined here to mean on ART; and of those in treatment, the number who are virally suppressed. Given gaps in certain data, establishing baseline model inputs required the estimation of several parameters. (These gaps and estimations are discussed further throughout the plan.)

## Baseline for Goal #1: The number of people with HIV but undiagnosed

As outlined in the 2015 Annual Epidemiology and Surveillance Report, an estimated 13,391 individuals diagnosed with HIV are currently living in the District. This estimate—a revision of a previous number based only on a diagnosis in DC, without regard for current residence—is based on the residential address documented on laboratory results reported to DOH in the past five years. This prevalence number only represents HIV-positive people who have a confirmed diagnosis and are currently in DC. The number or proportion of people who have HIV but are not yet diagnosed cannot be precisely counted, but a well-informed estimate must be ventured in order to track success in testing efforts.

There are several statistical methods to estimate the percentage of the HIV-positive population unaware of their status based on different data sources and formulas, including one produced by the CDC. The majority of state health departments in the U.S. use the CDC's results for their own jurisdictions rather than produce their own estimates. Because the specifics underpinning the CDC model were not public until very recently, DOH began a review to find a model

that could be replicated locally. The chosen model was one developed by researchers at the University of Washington and Fellows Statistics, created for use by local health departments.<sup>16</sup>

In brief, this model employs a back-calculation using a number of known inputs and assumptions including, primarily, the number of new diagnoses each quarter, the date of each individual's positive test, and the date of that individual's last negative test (or, when that information is not available, a conservative estimate of the earliest possible time that the individual could have been infected). These dates are used to define the window of time during which the individual could have become infected.<sup>17</sup> When these probabilities are averaged for all individuals for each time point prior to diagnosis, the result is an estimate of the "distribution of time from infection to diagnosis" for the population. This distribution approximates the fraction of people who are diagnosed within one quarter of being infected, two quarters of being infected, and so on. Once this period of delay is approximated, the model takes the number of new diagnoses at each quarter and "back-calculates" the probability they were infected in each previous quarter. That provides an estimate of how many people became infected at each time point in the past. When coupled with the estimate of the delay distribution, this provides an estimated number of people who have HIV but remain undiagnosed right now. The undiagnosed percentage, then, is the number of estimated undiagnosed cases divided by the total number of persons living with HIV in the jurisdiction (diagnosed cases plus the estimated undiagnosed cases).

When employed by DOH, the described model produced estimates that 9% to 14% of HIV cases were undiagnosed within the District. DOH used the more conservative (upper bound) estimate (14%) for its reported estimates of total HIV infection. It should be noted that the estimated range of 9–14% undiagnosed does not differ substantially from the previous estimate of 11% undiagnosed in 2012 produced by the CDC utilizing its methodology. Application of the estimate that 14% of individuals with HIV are undiagnosed to the 13,391 people diagnosed with HIV and currently living in the District according to surveillance data translates into an estimated 15,571 individuals living with HIV (i.e., diagnosed *and* undiagnosed cases) in 2015. Therefore, as indicated in the top chart on page 16. DOH currently assumes that 86% of HIV-positive individuals are aware of their HIV status. This figure is used as the baseline for the 90/90/90/50 goals.

## Baseline for Goal #2: The number of people diagnosed in treatment

Moving along the HIV care continuum from diagnosis to treatment, DOH has traditionally utilized laboratory data collected as part of routine surveillance activities to assess HIV care engagement and retention. As outlined in the 2015 HIV Care and Ryan White Care Dynamics report, approximately 73% of individuals diagnosed with HIV in the District received some type of HIV care services in 2015 (see "Current Local HIV Care Continuum Estimates" on page 16). as evidenced by having one or more viral load and/or CD4 laboratory results documented during the reference year. However, not everyone who accesses care has been prescribed—or is actively taking—ART, and DOH does not have data on ART prescriptions among the general population of those diagnosed with HIV. DOH does have complete data for ART uptake among those who access Ryan White-funded providers; in that group, 90% of clients with at least one documented medical visit in 2015 were prescribed ART. The model assumed a similar 90% ART uptake rate among the 73% of the total population diagnosed with HIV in the District who are retained in care. Therefore, the best estimate is that 66% of DC residents diagnosed with HIV are on ART.

While this is only an estimate, there is some support for using this assumption in the calculation. Surveillance data show that the viral suppression rate among those receiving medical services supported by the Ryan White Program (79%) is similar to that of the general population of those diagnosed with HIV in DC (78%), and viral suppression is closely tied to ART adherence. This plan outlines policies that will give DOH more precise data on ART uptake among all diagnosed with HIV.

## Baseline for Goal #3: The number of people in treatment reaching viral suppression

DOH receives all lab results showing viral suppression rates for HIV-positive District residents. However, because currently there is no way to gauge precisely the number of HIV-positive District residents who are on ART, it is impossible to determine the percentage of those on treatment who have reached viral suppression. Instead, the model used the rate of viral suppression among those who accessed care in any way, as indicated by a lab test (see “Current Local HIV Care Continuum Estimates” on page 16). That number is 78%. This approximation is consistent with published reports based on the national Medical Monitoring Project (MMP) documenting that 80% of individuals on ART achieve viral suppression, in part reflecting varying levels of treatment adherence.

## Estimating future reduction in new HIV infections

The baseline estimates concerning HIV-status awareness, treatment engagement, and viral suppression allow researchers to categorize the HIV-positive population in the District into four distinct groups: undiagnosed; diagnosed but not receiving treatment; receiving treatment but not virally suppressed; and receiving treatment and virally suppressed. These categorizations inform the understanding of where the District currently stands in relation to the 90/90/90/50 targets. Further, as established in previous research, these categories are also important because of differentials in the underlying risk of subsequent HIV transmission. Consistent with previous studies, the current model assumed that approximately nine new HIV infections occur annually per 100 individuals living with HIV who are undiagnosed; four new infections per 100 individuals living with HIV who are diagnosed but not on treatment, or on treatment but not virally suppressed; and 0.4 new infections per 100 individuals living with HIV who are receiving treatment and virally suppressed.

Assuming a continuation of the current rate of 1.78 deaths per 100 individuals living with HIV and the HIV transmission rates outlined above, the researchers were able to sequentially estimate the expected number of new HIV infections and diagnoses per year from 2016 to 2020. The model incorporated moderate annual increases in the percentage of the HIV-positive population diagnosed, engaged in treatment, and virally suppressed, with the assumption that the 90/90/90/50 plan targets will be met in 2020.

When the planning process for the 90/90/90/50 plan was announced by the Mayor, the most recent surveillance data were for the year 2013, which will be used as the baseline for the 50% reduction in new HIV diagnoses. In 2013, 520 newly diagnosed HIV cases were documented among District residents. The most recent surveillance data document 371 new HIV diagnoses in 2015, marking a 29% decrease. One of the biggest gaps in meeting 90/90/90/50 target goals is the number of people diagnosed and not engaged in care (see “Current Local HIV Care

Continuum Estimates” on page 16). Previous analysis has documented that, nationwide, individuals with HIV but undiagnosed account for 30% of new transmissions, while individuals diagnosed with HIV but not engaged in treatment account for 60% of HIV transmissions in the U.S. Improving linkage and engagement in care is critical and will lead to substantial progress in preventing new HIV infections. But even then, the model shows that reaching the 90/90/90 targets still leaves an estimated 273 new HIV diagnoses in 2020, just a 48% decrease from 2013 (see “Anticipated Impact of Implementing 90/90/90/50 Plan Activities” on page 16).

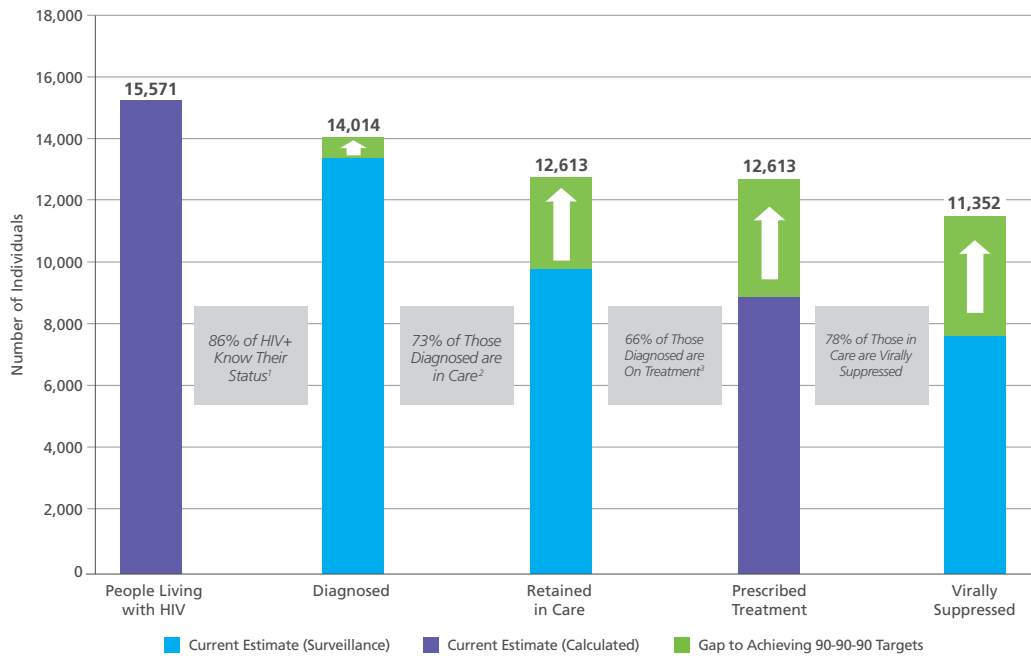
To arrive at a 50% reduction in new cases, the model incorporated increased PrEP utilization. The most recent studies show that PrEP can be highly effective when used consistently: Some studies reported zero new infections.<sup>18</sup> The primary factor impacting the efficacy of PrEP in preventing HIV infection is adherence, which has been shown to vary within study populations. Therefore, consistent with published research, the model assumed an 86% efficacy rate for PrEP in preventing HIV transmission in DC.<sup>19</sup> By incorporating efforts to increase the utilization of PrEP among focus populations, such as men who have sex with men and high-risk heterosexual women, it is anticipated that the number of newly diagnosed HIV cases in 2020 can be further reduced to approximately 227 cases, marking a 56% decline from that observed in 2013 (see “Anticipated Impact of Implementing 90/90/90/50 Plan Activities” on page 16). This assumes that approximately 8,000 DC residents will be on PrEP consistently; the best current estimate is that approximately 2,000 District residents have ever been prescribed PrEP.

It should be acknowledged that the new strategies outlined in this plan cannot happen in isolation from the very effective HIV prevention strategies that have already contributed to the downward trend in HIV diagnoses within the District in recent years. Most notably, several research projects have consistently documented the positive impact of the needle exchange program in the prevention of HIV within the injection drug use (IDU) population. Based on the modeling exercise, it is estimated that approximately 190 new HIV diagnoses would occur from 2016 through 2020 without the continued implementation of the needle exchange program. It is essential that such activities are sustained, while increased efforts are also directed toward improving treatment engagement among HIV-positive individuals and the uptake of PrEP among high risk HIV-negative populations.

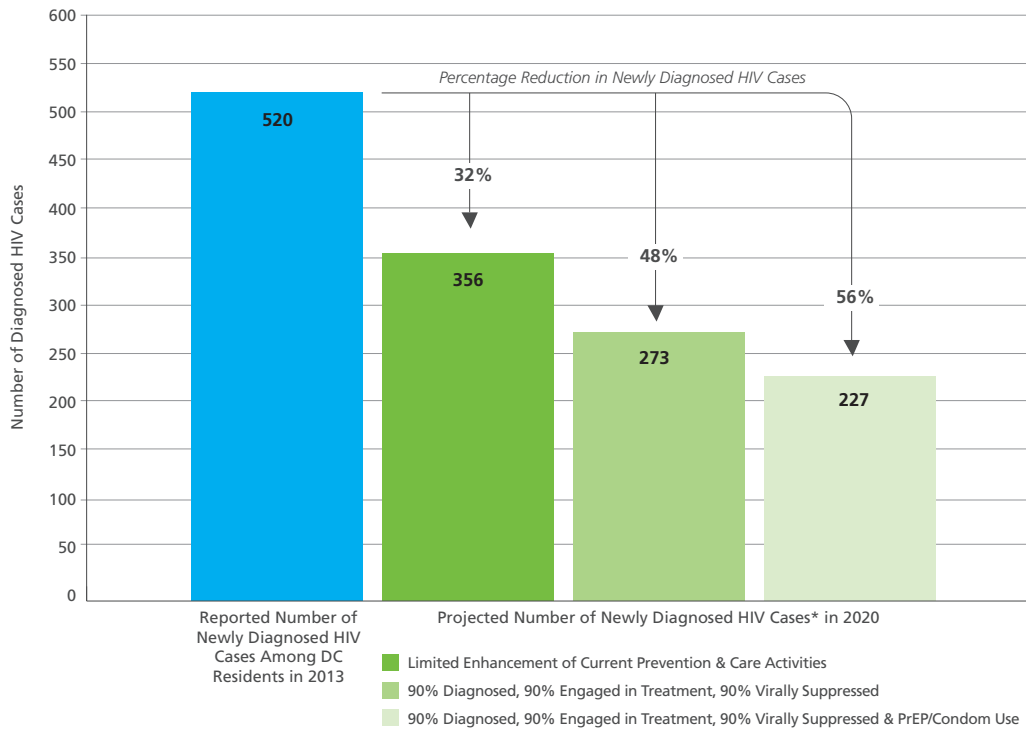
As additional data and information are available, the model will be updated to reflect the evolving knowledge of the characteristics of the HIV epidemic within the District and the efficacy of intervention strategies within the local population.



### Current Local HIV Care Continuum Estimates vs. Gap to Achieve 90/90/90/50 Targets, District of Columbia, 2015



### Anticipated Impact of Implementing 90/90/90/50 Plan Activities



# Plan Measures

In addition to the overarching 90/90/90/50 goals, the following indicators will be used to monitor and evaluate the progress of initiatives presented in the plan. These measures will serve as short-term indicators for tracking program implementation.

HIV Wellness and Prevention Measures	2015	2020	Gap to Achieving Goals
<b>GOAL #1: 90% of HIV-positive District residents know their status<sup>§</sup></b>	86%	90%	Identification of 623 Currently Non-Diagnosed HIV-positive Individuals
Percentage of DC Residents ≥ 18 Years of Age Tested for HIV in Last 12 Months	35%	40%	Testing of an Additional 26,288 Adults
Percentage of MSM Tested for HIV in Last 12 Months <sup>2</sup>	72%	80%	Testing of an Additional 3,114 MSM per Year
Percentage of IDU Tested for HIV in Last 12 Months <sup>3</sup>	73%	80%	Testing of an Additional 840 IDU per Year
<b>GOAL #2: 90% of District residents living with HIV are in treatment<sup>α</sup></b>	73% of those diagnosed are in care 66% estimated are on ART	90%	Engagement of an Additional 2,837 HIV-positive Individuals in Care
<b>GOAL #3: 90% of District residents living with HIV who are in treatment reach viral load suppression<sup>α</sup></b>	78% of those in care are virally suppressed	90%	Ensure that an Additional 3,727 HIV-positive Individuals are in Care & Virally Suppressed
<b>GOAL #4: 50% reduction in new HIV diagnoses</b>	29% <sup>4</sup>	50%	Prevention of 111 new HIV diagnoses
Number of Condoms Distributed in Past Year	7,300,000	8,500,000	Additional distribution of 1,200,000 condoms
Percentage of IDU Reporting Needle Sharing in Last 12 Months <sup>3</sup>	20%	10%	Prevention of Needle Sharing Behaviors Among an Additional 1,200 IDU
Percentage of IDU Using DOH-funded Needle Exchange Services During Year <sup>5</sup>	90%	95%	Increase in the Population Coverage of NEX Program by 600 IDU
Percentage of MSM Using PrEP	β	+15%	Increase in the Number of MSM Utilizing PrEP by 5,839 Individuals

HIV Wellness and Prevention Measures	2015	2020	Gap to Achieving Goals
Percentage of Individuals Screened and Eligible for PrEP Provided Prescription	β	65%	β
Percentage of Individuals Screened and Eligible for nPEP Provided Prescription	β	85%	β
Percentage of Individuals Diagnosed with an STI with Evidence of a Previous Infection	22%	15%	Prevent STD Reinfections Among 356 Individuals per Year
Percentage of Individuals Diagnosed with Primary/Secondary Syphilis or Rectal Gonorrhea/Chlamydia With Treatment Verification	β	90%	β

<sup>B</sup> Will be determined as expanded data collection strategies are implemented

<sup>§</sup> Estimated value utilized in modeling as baseline

<sup>“</sup> Currently only have proxy measure; will be determined as expanded data collection strategies are implemented

<sup>1</sup> Source: 2014 Behavioral Risk Factor Surveillance (BRFSS)

<sup>2</sup> Source: National HIV Behavioral Surveillance (2014 MSM Cycle)

<sup>3</sup> Source: National HIV Behavioral Surveillance (2012 IDU Cycle)

<sup>4</sup> This is the reduction in new diagnoses from 2013 to 2015

<sup>5</sup> Source of Local IDU Population Estimate Used for Denominator: Ruiz MS, O'Rourke A, Allen ST. Using Capture-Recapture Methods to Estimate the Population of People Who Inject Drugs in Washington, DC. AIDS Behav. 2016 Feb;20(2):363-8.

# Vital Inputs and Tools

Use of data and evidence is essential to crafting DOH's response to the HIV epidemic. DC is enhancing and expanding the systems in place to collect and utilize data on the major indicators associated with the plan, including testing, treatment, STD infections, PrEP, needle sharing, and other factors that increase or decrease HIV infection and healthy outcomes. While some of this information is currently available for subsets of the HIV-positive population, it is not available for all DC residents living with HIV. For example, providers who treat Ryan White clients are required to provide DOH with detailed information about clients' treatment, because the treatment is primarily funded through federal grants distributed by DOH. Gathering similar information on the larger high-risk negative and HIV-positive population will improve the ability to target intervention efforts and monitor progress in meeting plan targets. It will also facilitate the tracking of services at an individual level in order to more effectively identify those in need of targeted case follow-up, which will help to increase the number of HIV-positive District residents who are in effective treatment.

It is imperative to leverage existing data resources to identify and support the needs of residents living with HIV and efficiently coordinate healthcare delivery. It is also imperative that new data partnerships, interconnectivity, and sharing between District government agencies, as well as private-sector partners, be effectively used to identify care status, monitor health outcomes, and break down barriers along the HIV care and prevention continuum at the population level.

In recent years, DOH has established data-sharing agreements with the DC Departments of Health Care Finance (2015) and Behavioral Health (2014) to support routine data exchange for the purpose of:

- Monitoring and evaluating HIV service utilization
- Assessing and ensuring appropriate attribution of claims by insurance payers, including the Ryan White CARE Program
- Improving coordination and continuity of care for individuals served by more than one agency

In addition, through facilitation by the DC Department of Insurance, Securities and Banking, DOH recently partnered with health insurance plans in the District to discuss sharing data on healthcare measures to support the goals of the plan. Though in the early stages, opportunities for collaboration are being actively explored with Aetna, CareFirst BlueCross BlueShield, Kaiser Permanente, and UnitedHealthcare.

These partnerships are essential to complete the data analysis and measure the plan's progress. The key data points needed for more robust data include overall annual testing rates by District residents, PrEP uptake and utilization, initiation of ART, and medication adherence through prescription utilization data. These elements will enhance monitoring and accountability of the plan's elements—as well as improve healthcare and health outcomes for people living with HIV or at risk of acquiring the virus.

# Research Partnership

To further address the HIV epidemic, the District has leveraged academic, clinical, and governmental partnerships to establish a robust research environment. This effort was greatly enhanced by the formation of the DC Partnership for HIV/AIDS Progress (DC PFAP) in 2009 between the National Institutes of Health, under Dr. Fauci's leadership, and the DOH. The DC PFAP framework is designed to stimulate research in the District, launch initial research projects, establish a clinical research infrastructure, and recruit and support new and early researchers to achieve a goal of reducing the impact of HIV on the District.

The DC PFAP enabled the development of the DC Center for AIDS Research (DC CFAR), a unique collaboration among multiple academic and medical institutions in the District. DOH recently joined as a member, one of only three CFARs with health department membership. Further, DC PFAP initiated the Clinical Research Site (CRS) at The George Washington University. The CRS has successfully competed to obtain funding for leading-edge HIV prevention research, and, more recently, vaccine research. The DC CFAR has now positioned the District to compete successfully for the first cure research to be conducted in DC.

The DC PFAP provided the construct for the development and funding of the DC Cohort by National Institutes of Health (NIH). The DC Cohort is the largest single-jurisdiction research study of people living with HIV. The DC Cohort has enrolled more than 7,000 people—with a goal of 10,000 participants—in a study that tracks their health outcomes over a period of many years. This type of longitudinal study provides ongoing baseline and tracking data on the effectiveness of HIV treatment, as well as a comprehensive source of health data on people living with HIV. At its full enrollment, the DC Cohort will comprise more than 75% of all people living with HIV in the District and provide an even more accurate picture of how the District is progressing toward the 90/90/90/50 goals.

The DC PFAP framework has met its objectives in providing a platform for ongoing research opportunities in connection with the plan's goals. The research directions that will have significant implications for the plan include:

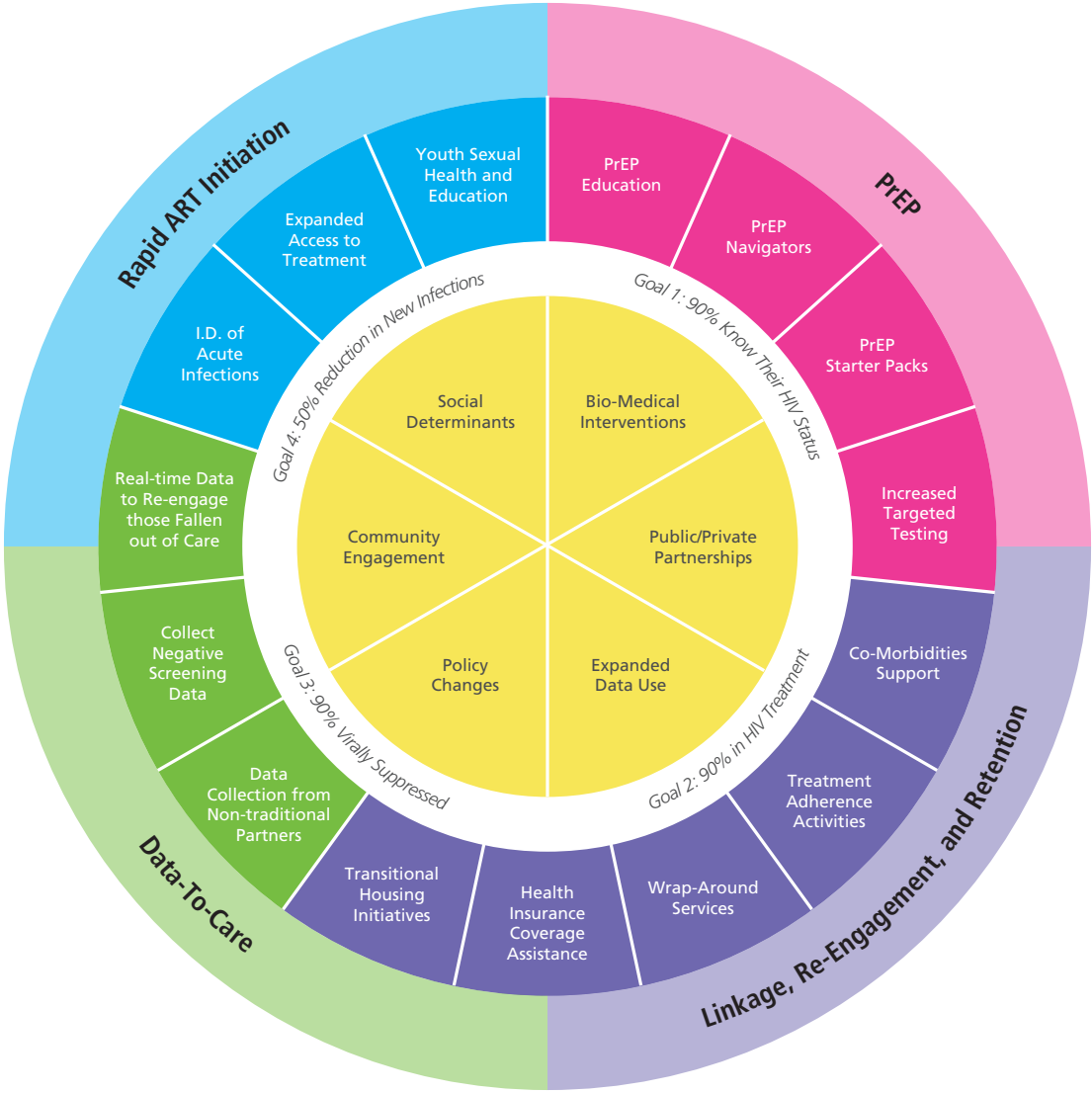
- **Injectables:** Research is being developed to determine the efficacy and feasibility of a long-acting injectable version of ART for both treatment and PrEP. The concept is an injection that would provide therapeutic treatment for people living with HIV for periods up to 90 days. Using PrEP in this way to prevent HIV could be similar to long-acting reversible contraceptives (LARC). The CRS will be enrolling participants in an injectable PrEP study in the District. If successful, the injectables could improve the adherence rate for ART treatment for those with HIV and for PrEP as a prevention tool.
- **Phylogenetics** is the science of identifying the network of transmission of HIV among the District's population by tracing genetic sequences, such as the DNA of HIV. There are new opportunities to apply this science to better understand the epidemic in the District and how the HIV virus is transmitted. For example, there is the opportunity to understand the networks of how HIV is passed from one person to another. To this end, DOH is currently conducting molecular HIV surveillance. In addition, there are two research efforts underway: Georgetown University is studying the phylogenetics of District participants in the Women's Interagency HIV Study (WIHS), and the DC Cohort is initiating a

- phylogenetic sub-study of a large cohort of individuals. The relation to the 90/90/90/50 plan is the potential public health application of phylogenetic approaches, particularly in predicting transmission among various populations. The research questions include timeliness and confidence of genetic testing and how it could be deployed to interrupt disease transmission. DOH will engage with its research partners to explore demonstrations and the feasibility of an intervention.

DOH will also promote collaboration with research projects to advance plan strategies. For example, information concerning patterns in HIV drug resistance from DOH surveillance activities and the DC Cohort offers an extensive data set on resistance patterns that will be applied to the Rapid ART demonstration project described later, to formulate initial treatment regimens that will be more effective for individuals and which will be less likely to lead to drug resistance. DOH will seek research opportunities to inform demonstrations through the DC CFAR. DOH has started discussions with researchers on such projects as PrEP for women, social determinant initiatives (including housing and employment), focus populations (including African-American and Latino men who have sex with men and African-American, Latino and Latina transgender people of color), and violence- and trauma-informed care.

# Programmatic Framework

To achieve the goals of the plan, the following diagram depicts the system- and program-level changes required. The inner circle consists of system-level components that influence the surrounding goals and activities. The plan goals, which will be described in more detail later in the report, correspond with stages along the HIV care continuum. The next level consists of program-level activities to be implemented and/or expanded over the coming years. The outer ring highlights a subset of the demonstration projects outlined in the plan.



# Elements of the District of Columbia 90/90/90/50 Plan

## GOAL 1: 90% of HIV-positive District residents know their status

**TASK 1.1** Use geospatial and demographic data to increase targeted testing, and require providers receiving testing grants to utilize evidence-based programs that target social networks where new infections are most likely.

**TASK 1.2** Continue media campaigns and medical provider education to ensure new and ongoing HIV testing approaches.

**TASK 1.3** Identify those who test negative but are at elevated risk and engage counseling for prevention strategies—including counseling for Pre-Exposure Prophylaxis (PrEP).

**TASK 1.4** Adopt and implement HIV-testing performance measures and thresholds for Managed Care Organizations (MCOs).

## GOAL 2: 90% of District residents diagnosed with HIV are in treatment

**TASK 2.1** Reduce the time from initial diagnosis to initiation of ART through a relaunch of the Red Carpet Entry Program.

- **Demonstration Project: Rapid ART**

**TASK 2.2** Examine the feasibility of requiring all providers in DC to report treatment of a new patient with HIV and when a patient begins ART to DOH.

- **Public Call to Action: Providers should voluntarily report (a) when they begin treating a new patient with HIV who is not a new diagnosis and (b) when patients begin ART.**

**TASK 2.3** Expand access to treatment and related services, targeting demographics and geographic areas where populations are at higher risk.

**TASK 2.4** Develop a standard consent form for HIV care that allows DOH and providers to share information that could improve treatment while respecting patient confidentiality.

- **Demonstration Project: Black Box Program**

**TASK 2.5** Expand the use of community health workers as a component of HIV care and treatment.

**TASK 2.6** Use peer navigators to engage with African-American and Latino men who have sex with men and transgender people of color.

**TASK 2.7** Reconsider the six-month in-person re-registration for the DC Healthcare Alliance.



**TASK 2.8** Identify opportunities to enhance culturally competent HIV treatment.

- **Public Call to Action: Healthcare providers in DC should increase their own understanding of culturally competent HIV treatment practices.**

**TASK 2.9** Examine the feasibility of leveraging a Health Information Exchange to improve HIV care and treatment.

## **GOAL 3: 90% of District residents living with HIV who are in treatment reach viral load suppression**

**TASK 3.1** Provide more accessible, healthcare services by hours, locations and providers.

- **Demonstration Project: Retention in HIV Care and Treatment**

**TASK 3.2** Partner with other DC government agencies to address the social support needs of clients that may influence treatment-seeking and adherence.

**TASK 3.3** Assume direct responsibility for improving clinical quality and health data among all providers in the District.

**TASK 3.4** Implement a data-to-care program to increase levels of engagement in care.

**TASK 3.5** Work with pharmacies and Pharmacy Benefits Managers around to increase access to prescriptions and improve better track medication treatment adherence.

**TASK 3.6** Promote policies to enable and encourage pharmacists to assist in ART adherence.

**TASK 3.7** Promote telemedicine approaches for adherence support.

- **Demonstration Project: Treatment Adherence Technology**

**TASK 3.8** Examine adding performance measures to future contracts with MCOs to enhance treatment adherence, viral load suppression, and funding for support services—especially housing.

**TASK 3.9** Retool the Ryan White Program to improve District and regional healthcare and supportive services.

**TASK 3.10** Redesign the HOPWA program to support persons toward self-sufficiency.

- **Demonstration Project: Housing and Employment**
- **Demonstration Project: Housing for Victims of Violence**

**TASK 3.11** Examine opportunities to provide more housing options for persons in the metropolitan area.

**TASK 3.12** Examine the need for expanded funding for affordable housing for people living with HIV.

**TASK 3.13** Promote use of HOPWA funding for capital development to create new units of affordable housing that are available for people living with HIV.

**TASK 3.14** Ensure that people living with HIV who access low-barrier shelters in DC receive accommodations that will allow them to manage their condition.

## GOAL 4: 50% reduction in new HIV infections

**TASK 4.1** Expand the network of prescribers of PrEP through increased knowledge and capacity of private medical providers.

- **Demonstration Project: PrEP for Women**

**TASK 4.2** Make PrEP starter packs available at the DC Health and Wellness Center.

**TASK 4.3** Develop PrEP-specific telemedicine program.

**TASK 4.4** Recruit peer navigators for African-American and Latino men who have sex with men and transgender people of color to promote knowledge of PrEP.

**TASK 4.5** Work with Medicaid, MCOs, and private health plans in order to ensure insurance coverage of PrEP treatment and related clinically recommended laboratory monitoring.

**TASK 4.6** Monitor the need for a co-payment assistance program for PrEP and gaps in insurance coverage for PrEP and fund PrEP assistance.

**TASK 4.7** Expand access and availability of Post-Exposure Prophylaxis (PEP).

**TASK 4.8** Develop public education campaigns to raise awareness of prevention strategies, in particular PrEP and PEP.

**TASK 4.9** Improve timely notice to DOH of all new HIV diagnoses.

- **Demonstration Project: Rapid HIV Surveillance and PEP-Plan B**
- **Public Call to Action: Providers should give more timely notice to DOH of a new HIV diagnosis.**

**TASK 4.10** Establish programs to eliminate stigma and educate the community about HIV.

- **Public Call to Action: DC residents and healthcare providers must work to eliminate stigma and educate themselves about HIV. Healthcare providers must educate themselves about new clinical advances to treat and prevent HIV—including PrEP.**

**TASK 4.11** Promote model programs for persons to take control of their healthcare and improve their well-being.

**TASK 4.12** Maintain and adjust funding for syringe exchange services to reach injection drug users in DC.

**TASK 4.13** Promote healthy decision-making and increase the availability of sexual health information for young people.

**TASK 4.14** Ensure that DC Public Schools and public charter schools provide appropriate HIV and STI-prevention education to all DC students and that students' understanding is assessed regularly.

**TASK 4.15** Ensure that all DC schools meet their sexual health education obligations under the Healthy Schools Act.

# GOAL 1:

## 90% of HIV-positive District residents know their status

In 2006, DOH began implementing routine, opt-out testing for HIV in all healthcare settings, shortly before CDC released recommendations along the same lines. Between 2007 and 2013, the number of DOH-funded HIV tests rose from 43,000 to 177,000 per year.<sup>20</sup> Using the methodology described on page 13, DOH estimates that the percentage of HIV-positive individuals living in the District who are aware of their status has increased from 79% in 2009 to 86% in 2015.<sup>21</sup> The increase in testing availability was accompanied by a broad-reaching media campaign designed to encourage DC residents to get tested. Survey results from Octane, the company that leads DOH's media engagement campaign, show that ads on TV, public transportation, and the radio increased knowledge and led more District residents to get tested.<sup>22</sup>

This plan envisions two possible tracks based on the results of an HIV test. If an individual is HIV-positive, they will continue to be engaged in treatment and follow the care continuum—connecting Goal 1 to Goals 2 and 3. But, if an individual tests negative, they may be referred for prevention services to ensure that they stay negative—connecting Goal 1 to Goal 4, a 50% reduction in new cases of HIV in DC.

### TASK 1.1

**DOH will use geospatial and demographic data to increase targeted testing and will require some new testing grantees to utilize evidence-based programs that target social networks where new infections are most likely.**

Since 2006, in order to increase the number of tests administered, DOH has promoted routine, opt-out testing when residents visit their medical providers. In an effort to reach more people with testing, it has used innovative initiatives, such as testing in hospital emergency rooms and at the Department of Motor Vehicles offices. Comparing two studies of District residents in 2006 and 2013 showed a very promising improvement in testing rates. In 2006, 60.9% of the study participants said they had been tested that year and 76.0% said within the last two years. And nearly half (47.4%) learned in the study they were HIV-positive.<sup>23</sup> In 2013, 70.5% of persons surveyed said they had been tested that year and 90% within two years. And only 0.6% of the participants were not aware they were HIV-positive.<sup>24</sup>

While the general testing approach has been successful, the number of persons diagnosed in many of the non-medical settings has decreased. For example, in 2015, while more than 3,000 people were tested at the motor vehicles office, there was not one person diagnosed as HIV-positive. A recent study from researchers at The George Washington University has shown that testing directed to populations at higher risk of HIV infection is much more likely to identify new cases of HIV: 0.44% of routine general population tests resulted in a positive test, while 1.33% of focused population tests did.<sup>25</sup> The study also shows that focused testing

is much more cost-effective than broad efforts in the general population: Targeted testing programs spent around \$33,000 for each new infection that was identified, compared with over \$100,000 for public health-funded general testing.<sup>26</sup> This is to differentiate from routine testing as part of routine healthcare practice—including a HIV test in a regular health visit.

Accordingly, GWU researchers recommended that DOH implement a “combined testing strategy among community-based organizations.”<sup>27</sup> To ensure that testing connects the largest possible number of HIV-positive District residents to care, DOH will encourage a mix of testing strategies: The most successful current testing programs—those with positivity rates of 1% or more, such as testing in hospital emergency departments—will continue, while some funding will be redirected to new, more targeted testing programs.

This recommendation will build on DOH’s traditional practice of using geospatial data—that is, examining where HIV infections are occurring to document the geographic distribution of newly diagnosed cases of HIV. DOH will identify “hot spots” to focus care and prevention efforts, including expanded testing.

Further, some new testing grantees will be required to show that their methodology for determining how to target testing will focus efforts on social networks at the highest risk. Studies show that, for example, among African-American men who have sex with men, HIV vulnerability “increases when an individual enters a high-risk sexual network.”<sup>28</sup> While routine, opt-out testing is necessary to truly reach 90% of all District residents living with HIV, DOH will direct its limited resources toward networks at the highest risk.

## TASK 1.2

### **DOH will continue successful media and medical provider education campaigns to ensure that both continuing and new testing approaches are widely accessed.**

DOH’s successful media and medical provider education campaigns will continue to be an important part of ensuring that routine testing is sustained and future testing programs are effective. Surveys show increased knowledge about HIV in general and testing in particular: 50% of respondents “said the campaigns provided them with new knowledge about HIV and testing.”<sup>29</sup> Further, demographic groups at higher risk were successfully targeted for outreach: For example, 46% of African-American District residents—who are at higher risk of contracting HIV—recalled seeing advertisements for testing, compared with 37% of white residents.<sup>30</sup>

DOH will maintain its medical provider education program on routine HIV screening. DOH has contracted with an academic detailing organization to deliver education on HIV testing and prevention approaches. (This is the same approach that pharmaceutical companies use to make in-person educational visits to medical providers.) The program has demonstrated effectiveness. In 2014, the nurse educators visited more than 565 physicians in the District. Of the 357 who completed the education sessions, 68.6% reported they had fully implemented the HIV testing recommendations for all patients. Another 23.5% reported partial implementation of the guidelines.<sup>31</sup> In 2006, study participants said that only 40.0% of their medical providers offered an HIV test.<sup>32</sup> In 2013, that group reported that 71.3% of their medical providers offered an HIV test.<sup>33</sup> Continued outreach to individual providers and institutional medical providers, like hospitals and primary care clinics, is essential to ensure that current routine testing numbers do not fall.

## TASK 1.3

### **DOH will require testing grantees to identify those who test negative but are at elevated risk, and engage counseling for prevention strategies—including counseling for PrEP.**

While a positive test requires engagement with treatment, a negative test often does not lead to any particular action. This can be a missed opportunity to identify individuals at risk for HIV infection and to avert future infections. Elevated risk factors can include past positive STI tests, STI non-genital diagnosis (particularly anal gonorrhea infection), frequent testing, self-reported unprotected sex, or a relationship with an HIV-positive partner. Those who fit these categories should be counseled on prevention. For example, someone in a relationship with an HIV-positive partner may be an ideal candidate for PrEP initiation. For providers using an electronic medical record, prompts could identify individuals at risk and suggest possible prevention counseling.

DOH will collect only aggregate data on negative tests. DOH will not collect the individualized data that grantees will use for follow-up. However, having data on the number of District residents who test negative will give DOH a better picture of the epidemic in the District and inform strategy going forward.

## TASK 1.4

### **DOH will work with the Department of Health Care Finance to develop and implement HIV-testing performance measures and thresholds for managed care organizations.**

The Healthcare Effectiveness Data and Information Set (HEDIS) is a tool used by more than 90% of America's health plans, including Medicare and Medicaid, to measure performance on important dimensions of care and service. There are 81 measures across preventive health, clinical care, and standards. The Department of Health Care Finance (DHCF) uses HEDIS measures to assess the performance of the managed care organizations. However, there are no current measures related to HIV.

DOH will model efforts on other jurisdictions, particularly Louisiana, to develop and implement a performance measure on HIV testing for the DC Medicaid program. The HIV branch in the Louisiana Department of Health was able to negotiate with the Medicaid branch to include HIV performance measures in the state's managed care contracts. This measure will help increase the number of District residents who receive annual testing as part of their healthcare.

# GOAL 2:

## 90% of District residents diagnosed with HIV are in treatment

Consistent ART use is the best way to both improve health outcomes for those living with HIV and reduce new infections in DC. Consequently, Goal #2 will measure those on ART. While DOH does not currently collect ART prescription information for all individuals diagnosed with HIV, laboratory information reported to DOH as part of routine HIV surveillance activities is used as a proxy to assess HIV care engagement. Among HIV cases diagnosed through 2014 currently living in the District, 73% had evidence of receiving care services in 2015, as indicated by having received one or more CD4 and/or viral load laboratory tests during the year.<sup>34</sup> Among Ryan White clients in the District with one or more medical visits during 2015, 90% were prescribed ART.<sup>35</sup> As described on page 14, the model assumed a similar 90% ART-uptake rate among the general population. Consequently, the best estimates indicate that approximately 66% of those diagnosed with HIV living in DC are on ART. When implemented, several tasks in this section will improve the accuracy of that estimate going forward.

An encouraging indicator of the success of HIV treatment in the District is the number of Stage 3 diagnoses per year. Stage 3 is the new term for persons having an AIDS-defining status, which includes a CD4 count below 200 cells/ $\mu$ L and a vulnerability to opportunistic disease. However, this can be temporary as persons get back on treatment and their CD4 count increases. Sustained and successful treatment prevents these dips in CD4 counts. In DC there has been a 72.7% decrease in the number of new Stage 3 cases, from 663 in 2007 to 181 in 2015.<sup>36</sup> However, there are still a large number of people not being successfully treated in care. As part of future “data-to-care” efforts to routinely monitor individual care and treatment status, DOH will more actively monitor HIV care and treatment adherence through active surveillance activities. This will include noting when people are not virally suppressed or have low CD4 counts, and the integration of insurance claims data. This will provide a more accurate gauge of the number of patients in sustained treatment.

A major factor in getting more DC residents into sustained care over the past six years is DC’s Red Carpet Entry Program. Through Red Carpet, a “concierge” at a DOH-funded clinic ensures that clients are seen quickly by providers who can get them on ART. This is nationally recognized as a successful model. Inspired by the Red Carpet Entry Program, San Francisco implemented a RAPID pilot program that aims to start patients on ART the same day as diagnosis as part of its “Getting to Zero” campaign.<sup>37</sup>

Getting people into treatment right away helps get them to viral suppression sooner. This achieves two important ends. First, it improves the quality of life for people with HIV. As a result of advances in treatment, individuals diagnosed with HIV are living longer and healthier lives. For example, individuals 50 years of age and older comprised 46% of the diagnosed HIV-positive population in the District in 2015, compared with 37% in 2009.<sup>38</sup> Second, those who are at viral suppression are highly unlikely to transmit the virus to others, and reaching

viral suppression starts with treatment. A study published in the *Journal of American Medicine* in 2015 estimated that 61% of new HIV infections were transmitted by people who were diagnosed with HIV but not in treatment.<sup>39</sup> Making sure people are in treatment will help to end the epidemic.

Sustaining treatment is more than a matter of taking medications. Providers that DC Appleseed interviewed emphasized that for many patients making appointments, taking medication, and remaining engaged in care is made more difficult by life circumstances like unstable housing, transportation, employment, and insurance coverage. Managing any illness often takes a back seat to more immediate, everyday problems when there aren't urgent health concerns to address, or when more serious conditions are at the forefront. When people are in these circumstances and drop out of HIV care, the best way to re-engage them is often through peer counseling, including by community health workers who they trust and who best understand their circumstances and barriers.

## TASK 2.1

### **DOH will reduce the time from initial diagnosis to initiation of ART through a relaunch of the Red Carpet Entry Program.**

Before 2012, HIV clinical treatment guidelines published by the U.S. Department of Health and Human Services (“DHHS Guidelines”) strongly recommended ART only for patients with CD4 counts below 350, because this threshold was generally associated with the onset of Stage 3 or AIDS-defining illnesses and other morbidities.<sup>40</sup> This “wait to treat” approach reflected uncertainty about the clinical benefits of starting ART in asymptomatic patients with relatively high CD4 counts, coupled with concerns surrounding adverse side effects and reduced quality of life under available ART regimes.<sup>41</sup>

However, two large clinical studies published in 2015, the Strategic Timing of Anti-Retroviral Treatment (“START”) and TEMPRANO studies, offered clear and definitive evidence that early initiation of HIV therapy reduces mortality and morbidity in HIV-positive individuals. As a result, CDC guidance has been updated to recommend immediate initiation of ART.<sup>42,43</sup>

With this new understanding, the Red Carpet program in DC will be revamped to expand on previous success by implementing intensive linkage and navigation efforts to “anchor” the patient into care with a medical home. A medical home or patient-centered medical home is a redesign of primary healthcare where persons receive comprehensive and continuous medical care with the goal of obtaining maximized health outcomes. A project manager will provide oversight for case managers or other peer navigators who can help establish and maintain linkage with care.

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## DEMONSTRATION PROJECT: Rapid ART

While the CDC recommendations promote early initiation of ART, the period between diagnosis and starting medication can be weeks or sometimes months while patients wait for certain laboratory tests, appointments, prescriptions, and other factors related to readiness for treatment. DOH will develop a demonstration project on a new approach called Rapid ART, which starts medication within 24 hours of diagnosis.<sup>44</sup> DOH will start at its new Health and Wellness Center (formerly known as STD and TB clinics). It will also engage one or two clinical partners to ensure a diverse population cohort and range of settings (e.g., primary care and hospital) to gauge effectiveness. The DC Health and Wellness Center is in the process of acquiring new laboratory capacity to run routine select tests before administering an HIV medication regimen. DOH will provide initial 30-day starter packs of a frontline ART regimen upon HIV diagnosis. The demonstration project will measure the effectiveness of uptake, adherence, time to viral load suppression, need to change regimen based on genotype testing results, and patient self-efficacy. This demonstration will be informed by the profile of genotypes among the thousands of persons in the DC Cohort study. Genotypes are the genetic differences among strains of HIV; this is important as some variations of HIV are resistant to certain medications. By understanding the overall types of HIV in the District, medical providers can select the best medications for persons to start treatment.

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### TASK 2.2

**DOH and DC Appleseed will examine the feasibility of requiring all providers in DC to report to DOH (a) when they begin treating a new patient with HIV who is not a new diagnosis and (b) when patients begin ART.**

*Public Call to Action: Providers should voluntarily report (a) when they begin treating a new patient with HIV who is not a new diagnosis and (b) when patients begin ART.*

Currently, all new HIV infections in DC must be reported to DOH, and some government-funded programs report on ART uptake as part of their grant requirements. But this leaves DOH with an incomplete picture of the epidemic. It also makes it difficult to help providers determine which of their patients may be actively engaged in care and treatment elsewhere and which are truly lapsing in treatment. Since 2008, DOH has regularly undertaken “recapture or retention blitzes,” where providers who had not seen a patient for a period of time can find out whether that patient is in treatment somewhere else. However, DOH does not disclose where a patient is in treatment. In interviews with providers in DC, these retention blitzes were universally praised as huge time-savers for staff who did not have to spend hours attempting to locate and contact a client thought to be out of care.

Healthcare providers and community-based organizations in DC spend many hours each month trying to connect with persons living with HIV who have not been seen recently, to reengage them in care, and ensure they are taking medications regularly. During a retention blitz, providers can query DOH about specific clients and learn where to focus their re-engagement efforts. When providers report treating a person for the first time, DOH can pass that information along to other providers.



DC regulations neither require nor prohibit the reporting of the initiation of a treatment relationship with an HIV-positive person,<sup>45</sup> and there does not appear to be anything in local or federal legislation that would preclude such a requirement. DC Appleseed and DOH will examine appropriate language for amended regulations that require providers to report when they begin treating a new patient who was previously diagnosed with HIV, and when patients under a provider's care initiate ART. This will allow for better data sharing with District providers—through, for example, retention blitzes—and more accurate tracking of progress toward the goals set in this plan.

## **TASK 2.3**

### **DOH will expand access to treatment and related services, targeting demographic and geographic areas where populations are at higher risk.**

As noted in the discussion of targeted testing, DOH is already working to identify “hot spots” where new transmissions are geographically concentrated in order to identify where resources are most needed. Understanding where in the District the burden of HIV is concentrated is an important tool for maximizing the impact of public health resources. DOH will utilize hot spot statistical analysis to assess the geographic clustering of HIV and STD infections, as well as identifying where there are lower rates of retention in care and viral suppression. Through this analysis, DOH will be able to better target HIV prevention and care efforts in those regions of the District where it will have the largest impact. Additionally, the analysis will increase understanding of the potential influence of social determinants (e.g., education, employment, income, transportation, child care, nutrition services, and housing) in addition to clinical outcomes.

## **TASK 2.4**

### **DC Appleseed will research and draft a standard consent form for HIV care that would allow DOH and providers to share information that could improve treatment while respecting patient confidentiality.**

Providers typically ask patients to complete a form that allows the provider to conduct various medical actions such as screenings, examinations, laboratory tests, and procedures specific to the provider. A patient needs to provide separate consent to allow sharing of information with another provider, and during a retention blitz, for example, DOH can only share whether a patient is in treatment with another provider—not which provider is currently seeing a patient. If patients have given prior consent, DOH could share additional information, which could allow providers to share treatment information that would improve care or help in reengaging patients who have fallen out of care, while also respecting patients' privacy.

DC Appleseed and its pro bono partners at Hogan Lovells US LLP will identify best practices in this area and draft a consent form that DOH can distribute to providers. This form will allow patients to consent to share information that could improve care. DOH and DC Appleseed will engage providers and community members to identify the most useful information and potential privacy concerns.

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## DEMONSTRATION PROJECT: Black Box Program

In 2012, Georgetown University invited the DC, Maryland, and Virginia health departments to discuss the barriers and challenges to sharing data across the three jurisdictions. This initial conversation led to Georgetown developing a prototype technological solution that would provide more efficient and timely matching of data among the three state-level HIV data sources.

Georgetown pioneered the creation and application of a novel computerized algorithm and privacy device that would receive data from the Enhanced HIV/AIDS Reporting System (eHARS) database and detect matches of identifiable information. The algorithm, housed on a secure computer, would report the matches back to the jurisdiction and then destroy the data internally to ensure security and confidentiality.

Georgetown tested a proof of concept and prototype device with the health departments, and it demonstrated that the technology could quickly and routinely identify people who were diagnosed in one jurisdiction and had subsequently moved to another.

The technology offers tremendous potential. The demonstration project will seek to test two new opportunities: (1) inclusion of more jurisdictions, which is important as residential patterns fluctuate considerably; and (2) inclusion of more data related to the health of individuals living with HIV, such as laboratory test results currently reported to health departments, and potentially accessing “big data” elements, such as prescription benefit management data on prescription dispensing.

Georgetown will create a multi-organizational governance process for systematically identifying, evaluating, and responding to questions that emerge about the ethics and practice of protecting data security and individual privacy in large data consortia across jurisdictional lines. This second phase of the project will be housed at the Oak Ridge National Laboratories to increase security and computing power.

DOH has committed initial funding in 2016 for the demonstration, which will be matched by Maryland, Virginia, New York, and one or more other jurisdictions. The demonstration will test whether this technology can improve the timeliness, accuracy, and completeness of HIV care continuum data and improve the health of people living with HIV in the region.

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## TASK 2.5

### **The District government will expand the use of community health workers as a component of HIV care and treatment in DC.**

The American Public Health Association defines a community health worker (CHW) as a front-line public health worker who is a trusted member of and/or has a close understanding of the community served. This trusting relationship enables a CHW to serve as a link between health and social services providers and the community, to facilitate access to services and improve the quality and cultural competence of service delivery.<sup>46</sup> CHWs are especially important when working to engage with more vulnerable populations. For example, African-American men who have sex with men have higher rates of HIV than any other group. A 2010 study based in DC showed that they have fewer sex partners and are less likely to have unprotected anal sex than the general population, but are “less likely to have health insurance, have been tested for HIV, and disclose their sexual orientation to healthcare providers.”<sup>47</sup> Peer navigators can

help address social factors that can lead to such disparities. Providers stressed in interviews that non-native English speakers especially need CHWs to provide assistance in a patient’s native language.

In 2010, the Washington AIDS Partnership led a public-private initiative to pilot peer HIV CHWs for low-income African-Americans living in Washington, DC, and Prince George’s County, MD. The project, called Positive Pathways, was managed by the Institute for Public Health Innovation. Positive Pathways employed CHWs at several local organizations to identify out-of-care HIV-positive individuals and provide personalized assistance to navigate the healthcare system and re-engage in HIV care.

Between 2011 and 2015, Positive Pathways reached more than 1,600 individuals and linked almost 1,300 individuals to medical care. Positive Pathways participated in a national evaluation for the AIDS United Access to Care initiative which was conducted by the Johns Hopkins Bloomberg School of Public Health. Preliminary evaluation results show that 86% of enrolled Positive Pathways clients were linked to care—defined as visiting a medical provider within 30 days of first contact.<sup>48</sup> For any person with HIV in need of this support, there should be sufficient funding to increase the availability of CHWs.

Given the potential value both for people living with HIV and for the District’s healthcare system, DOH will work with government partners such as DHCF, the University of the District of Columbia and community partners on aspects related to training, certification, credentialing, and integration of CHWs into healthcare and non-healthcare settings. The result will be an optimal and sustainable District-wide CHW program.

## TASK 2.6

### **DOH will fund peer navigators to engage both with African-American and Latino men who have sex with men and transgender people of color.**

DOH recently received a four-year grant from CDC to fund demonstration projects that provide culturally competent services for men who have sex with men of color and transgender people of color, particularly African-American and Latino, living with or at risk of acquiring HIV. DOH designed the demonstration, called Improve Measurable Participation and Access to Care and Treatment in the District, Maryland, and Virginia (IMPACT DMV), in collaboration with the Maryland and Virginia health departments and community partners, to create a regional system of care for both HIV-negative and HIV-positive men who have sex with men and transgender individuals of color.

The project aims to address the contextual circumstances that relate to success, such as education, employment, housing, and overall wellness to enhance self-efficacy. The demonstration project will develop additional measures to evaluate this comprehensive approach to be shared with CDC and the community. In an initial approach to integrate economic opportunity and health engagement in the health system, DOH will create new peer counseling positions called Health IMPACT Specialists who will help with outreach to persons at risk of HIV and living with HIV, and assist in connecting people to community resources and services.

DOH will seek to expand this opportunity for more participants, assess its effectiveness, and determine whether this model can be used to engage other focus populations in care.

## TASK 2.7

### DC Department of Health Care Finance will reconsider the six-month in-person re-registration for the DC Healthcare Alliance.

The DC Healthcare Alliance is a locally funded program that offers public insurance coverage to low-income District residents with no other insurance options, including those who do not qualify for Medicaid or Medicare, notably providing insurance for undocumented immigrants. In 2012, DHCF began to require re-registration every six months—previously this was required every 12 months—to help ensure that only District residents benefit from this unique program.

Many providers that DC Appleseed interviewed noted that requiring clients to re-register in person every six months is an overwhelming burden and causes people to fall out of care. DHCF reports that many Alliance beneficiaries who are eligible to recertify each month do not, and the agency is currently examining data to determine the cause. Anecdotally, advocates believe the recertification process itself discourages some beneficiaries from recertifying. The DC Fiscal Policy Institute estimated in 2015 that as many as 67% of monthly recertifications are terminated because of the process.<sup>49</sup>

The recertification process requires Alliance beneficiaries to go to one of five service centers for an in-person interview. Advocates describe long lines, and DHCF data show that the average wait time in 2015 for re-registration was more than an hour and a half. (The wait was nearly two hours for first-time applicants, and DHCF data show that most first-time applicants give up on the application process before finishing.) Many low-income DC residents do not have the ability to take time away from work or other obligations for this process, and the service centers clearly do not have the capacity to deal with the current volume.

According to providers DC Appleseed spoke with, losing benefits under the Alliance because of confusion about or difficulty with the recertification process was a frequent cause of patients dropping out of care. The Alliance is a great resource for District residents, especially marginalized communities at risk of infection. It is reasonable for DHCF to limit the program to District residents as a program entirely funded by District dollars, but the process should be reconsidered so that District residents who most need the benefits have reasonable access. This will be a major investment for the District government; DHCF estimates that it could cost as much as \$14 million to move from a six-month to 12-month recertification. This increase can be attributed to the fact that more people eligible for coverage will remain enrolled at any point, but it could also potentially be the result of non-District residents utilizing the program.

## TASK 2.8

### DOH will identify opportunities to enhance culturally competent HIV treatment.

*Public Call to Action: Healthcare providers in DC should increase their own understanding of culturally competent HIV treatment practices.*

The DC Council recently approved legislation that would require medical professionals in the District to take continuing medical education (CME) courses on culturally competent practices for LGBTQ patients.<sup>50</sup> As DOH Director Dr. LaQuandra Nesbitt noted in a response to questions about the legislation from Councilmember David Grosso, implementing regulations are

pending, but DOH anticipates the requirements will become applicable at the beginning of each license renewal cycle.<sup>51</sup> Before promulgating regulations, DOH should examine whether existing requirements for HIV-specific education can be part of this or other CME requirements. Additionally, providers in DC should independently seek out opportunities to improve their ability to provide care that is respectful of various patients' backgrounds and needs, including sexual orientation, gender identity, age, race/ethnicity, language, nationality, history of substance use and mental health, and returning citizen status within the context of HIV treatment.

## **TASK 2.9**

### **The District government will examine the feasibility of leveraging a Health Information Exchange for DC to improve HIV care and treatment.**

The District currently has multiple platforms for electronic health information exchange (HIE) among healthcare providers, hospitals, and agencies that select and implement their own systems. However, there is currently not a consistent mechanism for information to be shared among the systems. The District government formed a health information exchange policy board in 2012 to solve the communication challenges or adopt a new platform. A more robust DC-wide HIE system would allow providers to query regularly to find out whether a particular patient is in care elsewhere. This would, in effect, replace the successful retention blitzes on an ongoing basis, which providers interviewed for this plan would welcome. DOH is currently working with Ryan White providers to share these data through CAREWare—software that manages and monitors HIV clinical and supportive care. The results of the work with Ryan White providers will inform a District-wide plan.

## GOAL 3:

# 90% of District residents living with HIV who are in treatment reach viral load suppression

A patient's "viral load" is a measure of the number of copies of the virus in his or her blood. When this number drops below 200 per microliter, it is very unlikely that the patient will pass on the virus and the patient is considered to have reached viral suppression. As described on page 15, there is no way to gauge viral suppression rates among those on ART, because DOH currently can only estimate ART-uptake among the general population of those diagnosed with HIV. However, based on available surveillance data, approximately 78% of HIV-positive individuals engaged in HIV care were virally suppressed in 2015.<sup>52</sup> As part of enhanced surveillance activities, DOH will begin to actively solicit information from providers concerning the provision of HIV treatment for all newly diagnosed cases, as well as actively monitor the viral load status of all individuals diagnosed with HIV in order to identify those who should be targeted for treatment engagement or treatment adherence support services.

Many of the activities listed under Goal 2, to engage and retain individuals in treatment, will ultimately help to achieve Goal 3. If a patient is actively on ART and regularly sees a healthcare provider, it is quite likely that the patient will reach viral load suppression. This is important because three recent major studies confirm that viral load suppression—sometimes referred to as having an "undetectable" viral load—virtually eliminates HIV transmission risk.<sup>53,54,55</sup> This is often called "treatment as prevention" because increasing the viral load suppression rate among DC residents living with HIV will prevent new infections. Reaching this benchmark is the primary driver in reducing new HIV infections.

As noted previously, 73% of District residents living with HIV had laboratory tests during 2015, indicating some care but not necessarily being "in treatment" as defined for the purpose of this plan. Of those persons, 78% were virally suppressed. This is consistent with 2014 data that showed 77% of persons in care were virally suppressed.<sup>56</sup> While this number is encouraging, it indicates two issues that must be addressed to meet our goal. First, a significant proportion of persons in HIV medical care are not achieving optimal health outcomes, specifically viral load suppression. The strategies in this section aim to address this gap. Second, there are still a large number of persons known to be living in DC with HIV who have not had laboratory tests. Re-engaging persons in care as described in Goal 2 is essential to improving both individual health and community health and to reaching Goal 3.

## TASK 3.1

### DOH will work to make healthcare services more accessible by hours, location and providers.

Most persons living with HIV maintain routine visits with medical providers. In 2015, 73% of persons with HIV in the District had one or more medical visits during the year.<sup>57</sup> Among Ryan White program clients, more than 90% accessed medical providers.<sup>58</sup> But for some, there are barriers to accessing care. According to a study conducted by GWU, individuals cited multiple reasons: transportation, forgetting appointments, and competing priorities.<sup>59</sup> The study participants shared approaches that would improve their access: flexible appointments, appointment reminders, providers co-located in sites, and transportation assistance.

DOH will work with medical providers and community-based organizations (CBOs) to develop strategies that will address barriers and facilitate access to healthcare services. One critical area would be shifting available times for appointments, particularly to evenings and weekends. Flexible hours would improve access, for example, for people who cannot leave work during business hours for a medical appointment without lost wages.

While flexible hours may present challenges for some providers, another approach is co-locating providers at CBOs. HIPS, a CBO serving diverse populations such as transgender people, injection drug users, and commercial sex workers, has initiated a partnership with medical providers and made private, confidential space available for limited medical visits. This model could be expanded to other populations, settings, and hours.

Ideally, laboratory testing, is a part of every medical visit. Missing the opportunity to track viral load and CD4 status could have significant health consequences for a person with a compromised immune system. DOH will work with medical providers on practices that might create opportunities for lab testing at more convenient times outside of a medical visit through engagement with community partners. DOH will also examine self-collection approaches as another method.

Another option for healthcare access, borrowed from the experience in treating Tuberculosis, is using Directly Observed Therapy (DOT) for initial HIV treatment. DOH will coordinate with its clinical partners to promote the DOT option, particularly for a person with medication adherence challenges. In this case, DOT would mean staff—though not necessarily a primary care provider—from DOH or a private medical provider meets a person at a convenient location, including the home, place of work, or some other public place. The staff would hand the medications to the person and wait until the person takes the medication. DOT is used in Tuberculosis therapy throughout the country to ensure completion of treatment. It also affords the opportunity, depending on location, to draw specimens for laboratory testing.

Other recommendations in this section address other barriers, such as Recommendation 3.7 on telemedicine approaches and Recommendation 3.9 on redesigning the Ryan White Comprehensive AIDS Resources Emergency (CARE) Program, which will enable reallocation of funding to support non-traditional medical partnerships and services to facilitate medical visits, including transportation.

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## DEMONSTRATION PROJECT: Retention in HIV Care and Treatment

In 2015, the Washington AIDS Partnership and DOH launched a new public-private partnership aimed at reaching DC residents living with HIV/AIDS who struggle with engagement in HIV care provided through the traditional medical services. The Mobile Outreach Retention and Engagement (MORE) initiative is a new mobile medical team approach in Washington, DC, with medical and supportive services provided in the home and at “pop-up” community clinics. MORE will address common and persistent barriers associated with engagement in HIV care including transportation challenges, inability to attend daytime medical appointments, and disengagement with the medical system.

Through a grant to Whitman-Walker Health, the MORE team is deployed in the community to find out-of-care individuals and provide medical evaluations, blood draws for lab tests, and counseling either in the home or at pop-up community clinics, with the ultimate goal of supporting effective engagement in care.<sup>60</sup>

An evaluation of the project by an independent firm will review effectiveness and cost. These results will inform DOH and DHCF on developing a sustainability plan that could include dedicated Ryan White CARE Act funding and a Medicaid state plan amendment to cover clinical care in non-clinical settings.

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### TASK 3.2

#### **DOH will continue to partner with other DC government agencies to address the social support needs of clients that may influence treatment-seeking and adherence.**

In interviews with key stakeholders, DC Appleseed found that access to supportive services like substance abuse or mental health treatment were barriers to remaining in care and ART adherence—both of which are necessary to reach viral suppression. DOH will continue to strengthen coordination with substance use and mental health systems to mitigate the extent to which these co-morbidities impact a person’s ability to adhere to HIV treatment. Key players involved in responding to the broad range of needs include the DC Departments of Behavioral Health and Health Care Finance, as well as the Office of Victim Services and Justice Grants.

In 2011, DOH and the Department of Behavioral Health collaborated to develop a short universal screening tool for initial assessments of persons entering HIV, substance use, or mental health services. The screening tool is used by providers among the three funded service networks to identify needs and connect persons for further services. DOH will continue the collaboration, particularly on care coordination, to build capacity among substance use and mental health providers to support treatment adherence among persons with HIV and those conditions.

Under the ACA, states are allowed to design “health homes” for care coordination and chronic disease management for certain populations with multiple conditions, such as mental health and HIV. Effective January 2016, DHCF launched a Medicaid Health Home for people with serious mental illness. DHCF is working on a second Health Home for persons with chronic conditions. The model aims to improve health outcomes through individual-level coordination, for example, managing adherence to medications, intervention when persons drop out of care, and addressing other medical needs that could impact HIV treatment. This approach helps ensure that all of a client’s needs are met, without having to search separately for services. DOH will collaborate with DHCF on the design of the chronic condition Health Home that would enhance health outcomes for persons living with HIV.



### TASK 3.3

#### **DOH will assume direct responsibility for improving clinical quality and health data among all providers in the District.**

DOH will examine the success of medical providers in retaining patients in treatment and creating good health outcomes for persons living with HIV. DOH will establish a clinical quality management team as an ongoing resource to all clinical providers in the District. The team will establish a learning collaborative to define clinical excellence standards, particularly in addressing co-morbidities associated with HIV. For instance, the District has an aging cohort of people living with HIV. As HIV is known to accelerate the aging process, there is greater probability that certain conditions, such as diabetes, cardiovascular conditions, or cancer could affect this population. The management team will help care providers improve their knowledge of and capacity to address these conditions.

DOH will also collaborate with the DC Cohort—the joint longitudinal HIV study between GWU and DOH—to develop baselines and goals for other health conditions among persons living with HIV, such as those mentioned above. DOH will then be able to assess how all individual providers are meeting goals for the overall health of persons living with HIV.

### TASK 3.4

#### **DOH will implement a data-to-care program to increase levels of engagement in care.**

DOH proposes to implement a “data-to-care” strategy for the District. Data-to-care is a CDC-endorsed public health strategy that seeks to use HIV surveillance data to identify HIV-diagnosed individuals not in care and link them to care that will help lead to viral suppression. The DC program will utilize both provider and health department outreach—for providers, the outreach will be community health workers or medical case managers; for DOH, the outreach will be Disease Intervention Specialists. The program will also include follow-up efforts by those same teams to keep patients engaged in care. DOH will use laboratory test reports as a prompt for interventions.

The foundation of the proposed data-to-care strategy is the effective integration and utilization of the various surveillance, monitoring and evaluation, and administrative data systems already maintained by DOH and other governmental agencies which collect information on care and treatment utilization. The linkage of case information across multiple data sources will help to identify whether an individual HIV-positive person is actively engaged with a provider, what treatment regimen the person is using, and health outcomes, including viral suppression rates.<sup>61</sup> This will help DOH notify providers of gaps in care and treatment and allow them to offer DOH staff to reach out to persons with whom providers have lost contact.

In addition to housing the District’s eHARS, AIDS Drug Assistance Program (ADAP), and Ryan White CAREWare database, DOH currently has a data use and security agreement with DHCF for the Medicaid program. DOH plans to determine which patients have reached viral suppression by incorporating service utilization and prescription information collected through these ancillary data systems, rather than relying only on HIV laboratory data in eHARS. The goal is not to be intrusive to persons or providers, but to engage with providers and deliver support to persons living with HIV.

## TASK 3.5

### **DOH will work with pharmacies and Pharmacy Benefits Managers to better track medication adherence.**

Relationships with medical providers, regular health visits, and laboratory testing are all essential components of a care and treatment plan for a person living with HIV. However, getting and taking medication is the key to ensuring that a person succeeds in achieving viral load suppression and maintaining a healthy immune system. There is currently no established process by which to report and track ART initiation. Similarly, there is no current data collection on medication utilization. The proxy for measuring medication adherence is the dispensing and refilling of medication.

In the healthcare system, a Pharmacy Benefit Management system (PBM) is a third-party administrator of prescription drug programs, primarily responsible for processing and paying prescription drug claims. Every health insurance plan contracts with a PBM for its medication benefits, including Medicaid and ADAP. DOH manages ADAP, and its PBM provides regular reporting on prescription dispensing and refills. Through a data-sharing agreement with the DC Medicaid program, DOH can obtain equivalent Medicaid PBM reports. DOH calculates that these two sources account for approximately half of all persons living with HIV in the District. The other half are under private health insurance plans. DOH has initiated a collaboration with the major health insurance plans in the District to obtain aggregate data on medication adherence. These sources, combined with providers' reporting on ART initiation, will provide a critical marker on the progress the District is making to achieve Goals 2 and 3.

## TASK 3.6

### **DOH will promote policies to enable and encourage pharmacists to assist in ART adherence.**

Working with PBMs will track medication utilization at a population level. The next step is to provide support to maintain treatment adherence. Pharmacies have the primary role of dispensing medications. The District has several specialty pharmacies, including medical provider-based pharmacies, which provide medication management and counseling. DOH has established an HIV pharmacy network for ADAP beneficiaries.

DOH will work with the DC Board of Pharmacy and select pharmacies to expand medication therapy reviews and pharmacotherapy consults to address actual or potential medication ART adherence problems, such as drug interactions with other medications that could result in side effects. Including clinical pharmacists in a comprehensive medication management model can help manage patient problems and formulate treatment goals. The DC Boards of Pharmacy and Medicine will be considering regulations to allow pharmacists to enter into collaborative practice agreements with physicians. This new agreement will enhance the medication management model.

DOH will start a pilot to track medication utilization with ADAP and DC Medicaid. This will help to identify people with HIV who experience interruptions in their medication utilization and could benefit from an approach that includes engagement with a pharmacist.

## TASK 3.7

### DOH will promote telemedicine approaches for adherence support.

Slightly over 20% of HIV-positive individuals who were engaged in care in the District—though not necessarily prescribed ART—failed to reach or remain virally suppressed.<sup>62</sup> Among patients in the Ryan White program and the DC Cohort study, for whom DOH has more complete data, over 10% of even those who are prescribed treatment still are not virally suppressed. This is primarily because those patients do not consistently take their medication. Innovative approaches are needed to increase access and adherence especially among hard-to-reach populations. DOH proposes to promote multiple strategies to support adherence and compliance, including telemedicine-based interventions.

DOH will partner with clinical providers to utilize either an existing telemedicine platform or develop one to promote treatment adherence. The approaches could include mobile phone-based approaches, such as connecting DOH healthcare providers and patients via FaceTime. Another approach could be medication reminder messages. The World Health Organization has endorsed text messaging as an effective model for promoting ART adherence.<sup>63</sup> A meta-analysis of text-messaging based reminder services in other areas shows that providing reminders for medications, lab, and administrative appointments improved HIV-related health outcomes.<sup>64</sup> DOH will identify and explore multiple telecommunication technologies.

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### DEMONSTRATION PROJECT: Treatment Adherence Technology

Programs that allow alternative access points to health records—electronic health (eHealth) and related programs mobile health (mHealth)—have been a part of the health care system for more than 15 years. With the scale-up of electronic medical records (EMR), those systems have added patient portal features to enable individuals to access health records on the Internet and through mobile applications. This demonstration project will explore the use of technology to advance treatment adherence, particularly among persons with a history of inconsistent medication utilization.

- **eCap or Smart Cap technology.** In an intervention known as a Medication Event Monitoring System, caps on containers of medication taken by those who voluntarily participate are equipped with a chip that records the date and time the container was opened. This approach had promising results in a study at the University of North Carolina. The study found that participants in a self-management trained cohort with the Smart Cap containers had a 91% adherence rate compared with 37% among a standard medication utilization cohort. The technology ideally would also integrate with the person's provider EMR. The system would also feature a prompt to the provider when a person has not opened the container within a pre-defined time period.
- **Mobile application.** DOH would develop a mobile application with multiple features for those who choose to participate. Features include: a reminder system for medication use, a social network component to connect to peers for support, and a reward element that generates points for medication adherence and medical visits. The points would be redeemable for incentives, such as gift cards.

DOH will allocate funding to initiate the demonstrations with an evaluation component. These ideas were developed by first year medical students at The George Washington University School of Medicine and Health Sciences through its 2015 Intersession Program entitled "How Physicians Can Help Create an AIDS-Free Generation."

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## TASK 3.8

### **DOH and DC Appleseed will examine how to add performance measures to future contracts with Managed Care Organizations (MCOs) to enhance treatment adherence, viral load suppression, and funding for support services—especially housing.**

As discussed under Task 1.4, while there are 81 HEDIS measures related to a range of health conditions, there are no current HEDIS measures related to HIV care and services. Therefore, DHCF in partnership with DOH, DC Appleseed, and other relevant partners will develop a set of performance measures related to HIV clinical care and health outcomes, such as medical visits, laboratory testing, medication adherence, and viral load suppression. These performance measures will be used to determine funding for MCOs and included in future contracts.

Creative models tested in other parts of the U.S. have demonstrated the promise of channeling MCO funds into social support services in order to impact health outcomes. For example, MCOs in the Chicago area fund the AIDS Foundation of Chicago (AFC) to provide supportive services similar to those envisioned in DOH's Housing First pilot program described below. AFC was able to demonstrate to the MCOs that it could generate cost-savings by improving health outcomes for clients with HIV, in this case by ensuring stable supportive housing for clients who accounted for a disproportionately large percentage of expenditures. Patient needs are better met and the MCOs save money by moving their investment "upstream."

## TASK 3.9

### **DOH will retool the Ryan White Program to improve District and regional healthcare and supportive services.**

For more than 25 years, the Ryan White CARE Program has supported a system of clinical care, medication access, and support services for people living with HIV. The program design offers a dynamic range of care and support, which has consistently provided high rates of service utilization, care retention, and viral load suppression when compared with the general population of persons with HIV.

The District receives Ryan White funding from the U.S. Health Resources and Services Administration (HRSA) to administer metropolitan-based and District-based programs. The metropolitan area includes counties in Maryland, Virginia, and West Virginia. Funding is allocated by a formula based on people living with HIV. Each jurisdiction develops area priorities and funding. While Ryan White provides a safety net for people living with HIV, it has unfortunately promoted a fragmented system of care in the region.

With the adoption of the ACA, the landscape of health insurance coverage changed extensively. The ACA ensures that people do not lose their health insurance because of changes in their condition, expands publicly funded insurance coverage through Medicaid, and provides more affordable options for people to purchase insurance. As the Ryan White CARE Program is a payer of last resort—funds are only available for services not otherwise covered by any health insurance—these provisions of the ACA mean that fewer people have to rely on the CARE Program for basic coverage. This can free up resources available under the CARE Program to meet other healthcare needs.

The Ryan White CARE Act generally requires that a minimum of 75% of funds must be allocated for core medical services and no more than 25% for non-clinical services. DOH will apply for a waiver of this rule—which is typically granted—so that Ryan White funds no longer needed for medical services can be redistributed for services just as crucial for people living with HIV, such as housing, transportation, child care, nutrition support, emergency financial assistance, and assistance with insurance, benefits, and other health and non-medical related needs.

DOH will redesign the Ryan White CARE Program as implemented in the metropolitan area as follows:

- **Revamped funding mechanism.** DOH will change the funding mechanism of community providers to a “fee-for-service” based approach, in which DOH will pay providers for discrete units of service delivered. This approach will retain many of the programmatic advantages of Ryan White, including bundled services. It will also ensure that Ryan White funds are not used for services that can be covered by other funding sources—insurance coverage in particular. This will allow more Ryan White funds to be reallocated for non-insurance covered services, such as housing, medical care in non-clinical locations, transportation, emergency assistance, non-medical case management (assistance in obtaining insurance and public benefits), and food and nutrition services. It will also enable a patient-driven approach to services as funding will follow people, rather than tying a patient to a particular Ryan White-funded provider.
- **Regional healthcare system.** DOH will implement a regional health system with portability for Ryan White-eligible people across the metropolitan area. This regional system will allow people to select service providers that meet their needs regardless of location or residence. This will allow patients to travel within the region if there is no Ryan White-funded provider nearby that can provide a specific service—for example, dental care—which will reduce barriers to services and increase supports for treatment adherence.
- **Performance-based approach.** DOH can then implement a performance-based approach that offers financial incentives to providers to increase and enhance health outcomes. This will complement the goals of routine medical visits and treatment adherence resulting in viral load suppression.

## Area of Special Focus: Housing for people living with HIV

Social factors can be instrumental in ensuring a patient stays in care and reaches viral suppression—in particular, advocates frequently cite the need to increase access to stable housing. DC Appleseed added a section about housing to its annual report cards in 2012, after interviews with stakeholders made it clear that the District needed to do more to ensure stable housing for those living with HIV. In its 2012–2014 Comprehensive HIV Care Plan, the Metropolitan Washington Regional Ryan White Planning Council noted that the most frequently cited need in the DC metro area among people living with HIV is housing.<sup>65</sup> DOH collects data on Ryan White clients related to their housing stability. In 2015, 11% of DC Ryan White clients reported their housing status as unstable. The report also emphasized the importance of constant access to supportive services.<sup>66</sup>

The Housing Opportunities for Persons with AIDS (HOPWA) program is the primary federal program by which affordable housing is offered specifically to people living with HIV in the District and metropolitan area. The Department of Housing and Urban Development (HUD) distributes funds via a grant formula. DOH uses HOPWA to support the following services in the District: tenant-based rental assistance; facility-based housing (supportive housing); short-term rent, mortgage, and utilities services; housing information and referral services; and supportive services. Supportive services in the District include case management, substance use services, and meals or nutritional services.<sup>67</sup> Of the 479 new individuals placed in housing in 2014, 54 were homeless individuals newly placed in housing. Of those newly housed individuals, 33% were chronically homeless and 2% were veterans. HUD reduced DC's HOPWA funding almost \$2 million between 2014 and 2015 when a bonus supplement for areas with high rates of HIV expired. Since then, HUD funding has remained nearly level with only slight adjustments.<sup>68</sup>

Those who are able to take advantage of programs like HOPWA have improved health outcomes. Among HOPWA clients, 93% were retained in care in 2014, while 73% of all DC residents living with HIV were engaged in care.<sup>69</sup> This mirrors results around the country and recent studies that have shown that stable housing improves the quality of life for those with chronic illnesses. For example, a May 2016 report from the Center on Budget and Policy Priorities (CBPP) found that homeless people with chronic illnesses who are offered supportive housing “spent 23% fewer days in hospitals, had 33% fewer emergency room visits, and spent 42% fewer days in nursing homes, per year during the study period.”<sup>70</sup> And for those living with HIV, the CBPP study found that those in supportive housing “were 63% more likely to be alive and have an intact immune system,” which aligns with the data on HOPWA clients in DC.<sup>71</sup>

## TASK 3.10

### DOH will redesign the HOPWA program to support persons toward self-sufficiency.

When Congress established the HOPWA program in 1990, the average life expectancy for a person with HIV was 9–24 months. Today, with ART, a person diagnosed at the age of 20 can expect to live to 75 years or more, nearly equivalent to a person without HIV.<sup>72</sup> Thus, in 1990, by definition, HOPWA was funding for either end-of-life housing or a temporary form of assistance while individuals obtained other housing support, such as Housing Choice Vouchers. Today, the health outcomes for people with HIV have changed significantly, yet the basic HOPWA program has not been updated to reflect the current reality.

DOH will work with the District government and other stakeholders to redesign the HOPWA housing program in the District and metropolitan area to better align with other housing programs and provide services depending on where each person is along the housing continuum: emergency shelter for the homeless, supportive housing for people with special needs, rental housing with or without assistance, homeownership, and senior housing. As people with HIV live longer, healthier lives, they will need access to all of these types of housing.

Going forward, the HOPWA program will be driven by specific goals, including helping District residents living with HIV achieve independence from ongoing HOPWA support when possible. This can include helping individuals find and maintain employment that will allow them to

generate income, and it might also include a housing setting that has more supports, for example senior housing for people living with HIV who are older than 55. Future recipients of HOPWA funding will develop goals and a plan to achieve that goal. HOPWA voucher agreements will provide supportive services related to the client's goal, including peer supports when necessary, and specify times at which the agreement will be reviewed.

The underlying idea of the revamped HOPWA program will be the nationally accepted "housing first" concept. Under a housing first model, those who need housing support are placed immediately in permanent housing without spending time in a transitional housing program. This approach can be effective for people on a housing self-sufficiency track and for people in need of supportive housing. For example, DOH is currently piloting a housing first project with Joseph's House and Jubilee Housing. The pilot places individuals with a track record of unstable housing in an apartment close to Joseph's House, which provides the needed wrap-around services. The pilot provides funding for a limited period of rental assistance that is then covered by non-HIV housing funding designated for supportive housing. DOH is also using the same approach to develop a demonstration project for persons living with HIV who are also victims of violence. DOH will assess the potential for expansion of this model with HOPWA and Ryan White CARE Program funds. DOH is also developing a demonstration project related to housing and employment (see below).

As those HOPWA clients who are able to become self-sufficient no longer need a HOPWA voucher, more people living with HIV currently locked out of the HOPWA program—because of limited federal funding—will be able to access stable housing. And for those who need continued support, HOPWA will work with other DC agencies, when possible, to identify other programs that can help clients achieve their housing goals.

The redesign of the HIV housing program will align with Mayor Bowser's Homeward DC strategic plan to end long-term homelessness in the District by 2020. The key intersections with the Mayor's homeless plan include increasing the supply of affordable and supportive housing, removing barriers to housing, increasing economic security of persons living with HIV, and increasing prevention efforts.

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## **DEMONSTRATION PROJECT: Housing and Employment**

In several parts of the country, jurisdictions have started testing new approaches to support housing success, particularly among the population of people living with HIV that needs temporary assistance to get to self-sufficiency. This is the framework for the housing and employment demonstration project.

There is evidence that housing stability improves HIV health outcomes. There are also studies that show that employment benefits HIV health outcomes. Employed people were 39% more likely to have achieved optimal adherence to antiretroviral medications (reaching better than 95% adherence).<sup>73</sup> Employment increased self-care (49%), CD4 count (37%), and medication adherence (21%).<sup>74</sup>

The focus will be on single adults with low incomes who are homeless or at risk of homelessness, and who are living with HIV/AIDS. Support services will include case management, housing search assistance, and employment assistance; financial services will include money for security deposits, utilities assistance, and ongoing rental assistance for 24 months.

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## **DEMONSTRATION PROJECT: Housing for Victims of Violence Living with HIV**

The District is also committed to providing the most effective and compassionate services possible to people living with HIV who are also victims of sexual assault, domestic violence, dating violence, and stalking. DOH will partner with the DC Office of Victims Services and Justice Grants and community partners to learn about the obstacles and promising projects for system alignment, service coordination, and intervention design for low-income people living with HIV who are homeless as a result of sexual assault, domestic violence, dating violence, or stalking. Activities to increase housing stability and improve engagement along the HIV care continuum, notably treatment adherence, for this project are scheduled to run from October 2016 through September 2018.

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### **TASK 3.11**

#### **DOH will examine opportunities to provide more housing options for persons in the metropolitan area.**

Similar to the Housing Choice Voucher program, HOPWA clients pay 30% of their monthly income for housing, while funding from HUD covers the rest of the unit's total rent cost. This makes housing affordable to low-income individuals and families in the District, where the market offers fewer and fewer units affordable to those with limited income. However, HUD also caps the maximum total rent allowable for a HOPWA-subsidized unit—at, for example, \$1,623 per month for a two-bedroom unit in the DC region (2016). Expanding to a regional focus, as with the Ryan White CARE Program, will make more units available for HOPWA clients. It will also offer more choices to HOPWA clients—for example to identify different amenities that may better align with a client's housing goals. DOH partners have indicated an interest in providing more choice for clients living in HOPWA-subsidized housing.

### **TASK 3.12**

#### **The District government will examine the need for expanded funding for affordable housing for people living with HIV.**

In Tasks 3.8 and 3.9, DOH will access other sources of funding for housing support for District residents living with HIV—specifically, tapping into Ryan White funding and creating incentives for MCOs to provide funding. Because stable housing is so closely correlated to staying in sustained treatment—and, consequently, reaching viral suppression—it is important to ensure that sufficient funding is provided. Other jurisdictions have also realized the importance of supportive housing. New York state, for example, has redesigned its Medicaid funding model and offered \$47 million for supportive housing in 2015–16.<sup>75</sup> DOH and DC Appleseed will continue to examine additional funding opportunities to ensure that people living with HIV in DC have access to stable housing.



### TASK 3.13

#### **The District Government will promote the use of HOPWA funding for capital development to create new units of affordable housing that are available for people living with HIV.**

The Mayor's strategic plan to end homelessness promotes the development of more general affordable and supportive housing for persons in need of enhanced services. Due to the high cost of housing development, the District government and project sponsors have blended multiple funding sources to make projects viable. The funding sources cover both construction and services for supportive housing. This model has been successfully implemented for projects with a range of funding sources: the Housing Production Trust Fund, federal tax credits, DC Housing Authority vouchers, Department of Behavioral Health funds, and Department of Human Services' homeless funding. The advantage of the blended funding approach is that no one agency or program has to carry the full cost. And if there is a funding source dedicated to a certain population or health condition, then the whole unit—regardless of the amount contributed—must be set aside for that eligible occupant.

DOH and the DC Department of Housing and Community Development (DHCD) will engage developers and design housing financing proposals that would include a portion of HOPWA funds to promote new housing stock and a set-aside of units specifically for people living with HIV. DOH and DHCD will also work with the Deputy Mayor for Planning and Economic Development to encourage new developments to access this funding where feasible and appropriate. This approach leverages limited HOPWA funds to increase the stock of affordable housing for persons with HIV.

### TASK 3.14

#### **The District government will ensure that people living with HIV who access “low barrier” shelters in DC receive accommodations that will allow them to manage their condition.**

Access to emergency shelters is granted on a first-come, first-served basis; homeless individuals who are able to access a shelter on a given night must vacate in the morning, then return in the evening to line up for a bed for the next night. In interviews with advocates over the years, DC Appleseed has learned that this can inhibit ART adherence among homeless people living with HIV in DC. People living with HIV who are experiencing homelessness and utilizing low barrier shelters should have access to facilities and secure accommodations for their medications.

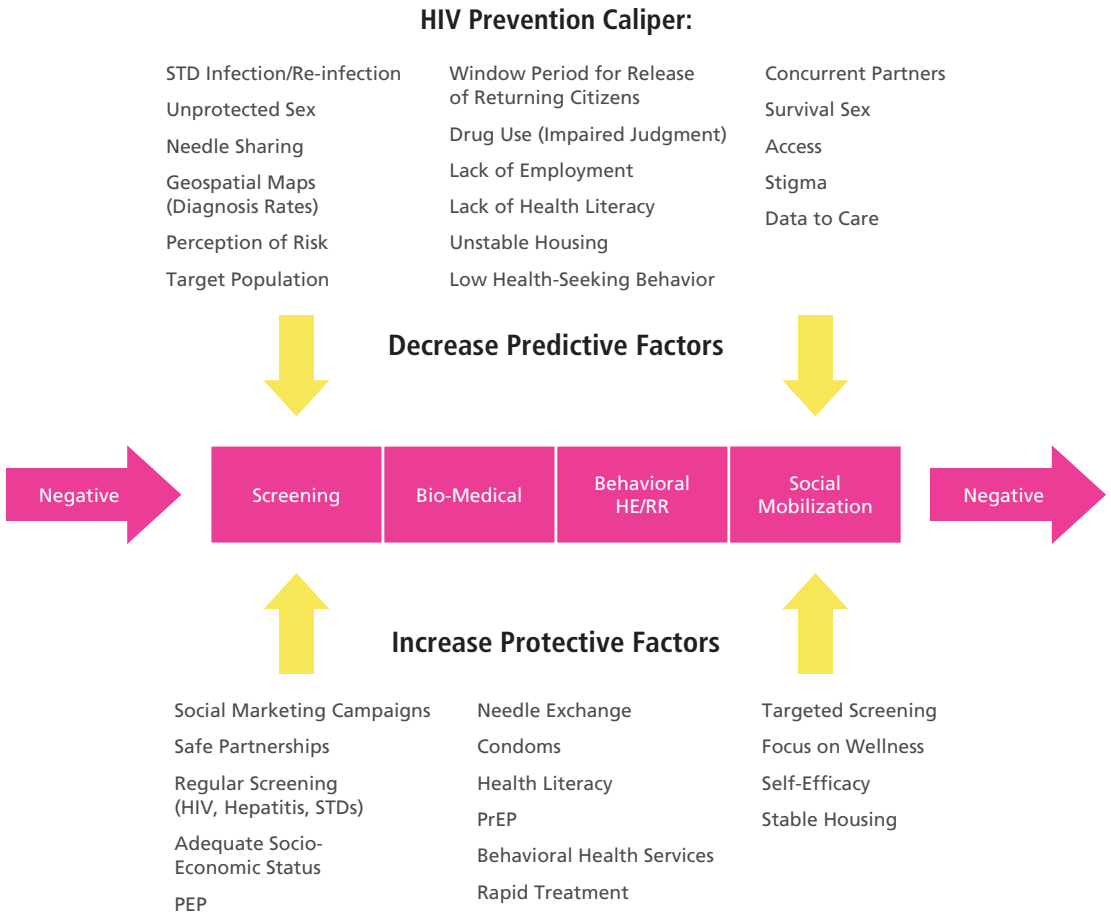
The Community Partnership for Prevention of Homelessness (TCP), which coordinates the District's emergency shelters, has a policy requiring shelters to provide reasonable accommodations for people living with HIV. However, DC Appleseed surveyed shelters and found that this is not a universal practice. Some shelters allow residents, for example, to return during the day under a reasonable accommodation request—including to access refrigerated diabetes medications. However, other shelters allow entry for medication only at the discretion of staffers on duty, and some shelters do not allow residents to re-enter under any circumstances.

Title II of the federal Americans with Disabilities Act (ADA) broadly provides that “no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.”<sup>76</sup> The definition of “disability” includes HIV-positive status.<sup>77</sup> Title III bars discrimination against those with disabilities, including people living with HIV, in places of public accommodation, including homeless shelters.<sup>78</sup> Public entities, such as the DC government and its agencies, and places of public accommodation, such as DC homeless shelters, must offer disabled individuals reasonable accommodations that allow them “meaningful access” to programs, services, places, and activities enjoyed by non-disabled people.<sup>79</sup>

The District government through the Department of Human Services and TCP will ensure that all District residents living with HIV who access low-barrier shelters consistently receive accommodations that facilitate adherence to medical treatment, including ART.

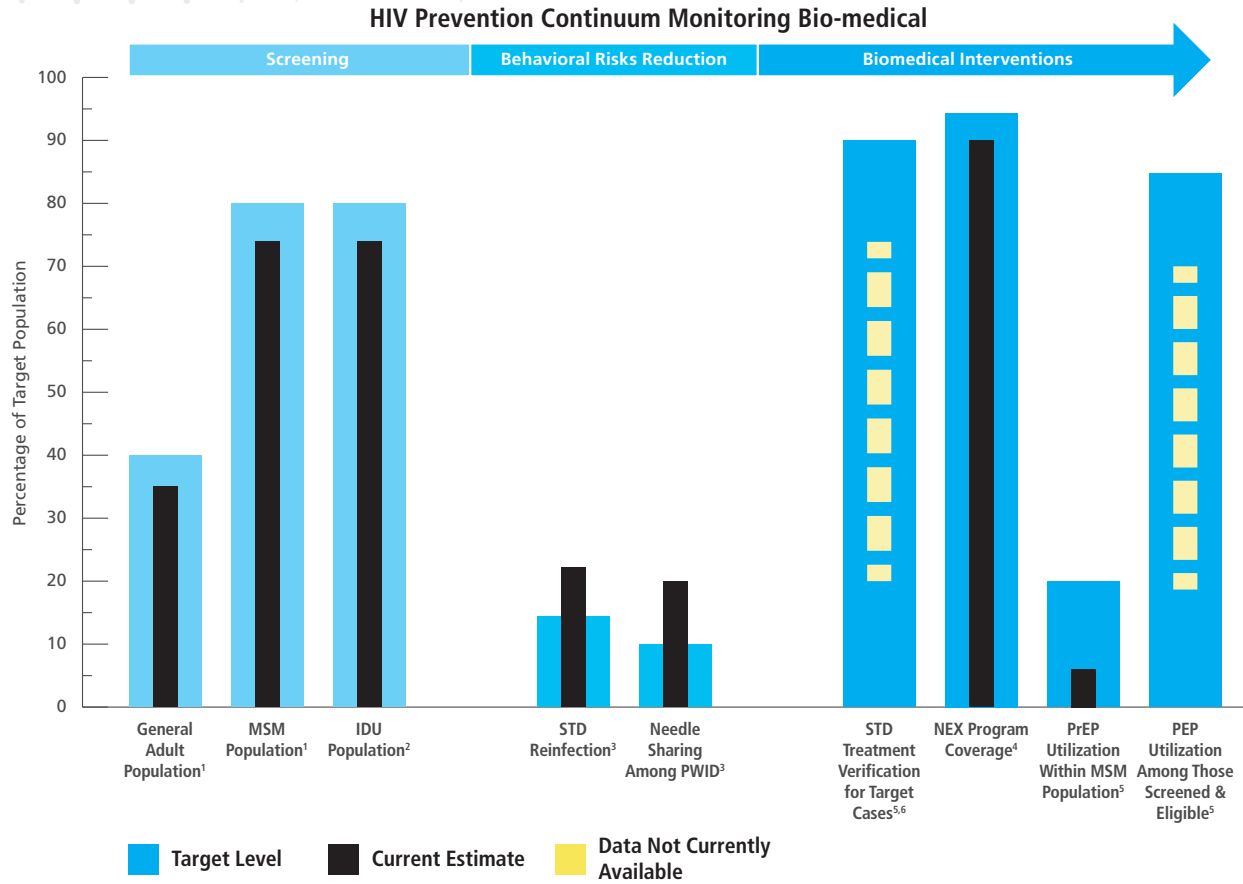
# GOAL 4: 50% reduction in new HIV infections

Goals 2 and 3 of the plan are primarily focused on the treatment side of DOH’s modified continuum. Treatment as prevention—that is, preventing new infections by increasing the number of people who reach viral suppression and are unlikely to pass on the virus—has the potential to get us most of the way to Goal 4: It alone is projected to reduce new infections by 47%. However, those who are HIV-negative must have greater access to information, interventions, and supports to get all the way to the goal of a 50% reduction in new HIV infections District-wide. This section of the plan outlines steps along a continuum of evidence-informed approaches—screening, bio-medical, behavioral, and social mobilization—that will expand proven prevention interventions to decrease the predictive factors that increase the risk of HIV infection and increase the protective factors that avert infections.



Like other public health agencies, DOH tracks measures along the HIV Care Continuum, including diagnosis, linkage and retention in care and treatment, and viral load suppression. Under this model, patients ideally move from one end to the other—from a positive test to viral suppression achieved through sustained treatment; this continuum is reflected in the 90/90/90 goals of this plan. But DOH also plans to track movement along a HIV Prevention Continuum, which would include testing and prevention tools like condoms and medication that can prevent HIV infection. The Prevention Continuum does not have an obvious chronology, as persons may use different prevention interventions at different times. (See “HIV Prevention Continuum Monitoring” on page 52.)

While some factors are too broad or subjective to lend themselves to measurements, such as healthy relationships and wellness, there are some quantitative indicators based on DOH analysis of surveillance data on STI diagnoses and HIV diagnoses that could be included in a prevention continuum. For example, active, undiagnosed STI infection increases opportune HIV infection five-fold. Prior repeat STI infection doubles the risk of HIV infection and can be used to identify HIV risk in HIV-negative individuals. Another measure, not currently reported consistently, is anatomical location of STD infection. For example, rectal gonorrhea is not only a predictor of HIV infection, but the undiagnosed infection accelerates HIV transmission through unprotected sex at a rate higher than other STIs. By identifying individuals with these risk factors, interventions can be provided to interrupt HIV transmission, such as STI treatment, PrEP and Post-Exposure Prophylaxis (PEP) utilization, and elimination of needle sharing through syringe access programs.



<sup>1</sup>Source: Behavioral Risk Factor Surveillance System (BRFSS)  
<sup>2</sup>Source: National HIV Behavioral Surveillance (NHBS)  
<sup>3</sup>Source: STD Surveillance Data

<sup>4</sup>Source: HAHSTA Needle Exchange Program Data  
<sup>5</sup>Source: Proposed Enhanced Surveillance Activities  
<sup>6</sup>Primary & Secondary Syphilis Cases and Rectal Gonorrhea/Chlamydia Cases

## Pre-Exposure Prophylaxis (PrEP)

In 2012, the Food and Drug Administration approved a modified regimen of Truvada®, which is widely used for those on ART, to prevent HIV infection among those who are at risk but HIV-negative.<sup>80</sup> This treatment is called Pre-Exposure Prophylaxis, or PrEP, and is the first novel strategy introduced since the start of the epidemic that is targeted specifically at preventing sexual HIV transmission. Condoms have been a vital component of HIV prevention, but had already been available to prevent other sexually transmitted infections and unplanned pregnancies. Behavior modification, though tailored for HIV, had also been in practice.

The ease and utility of PrEP use—daily dosage of a single medication, supported by periodic counseling sessions and lab tests—make it suitable for large-scale implementation and high impact. Its effective rate is more than 90% with consistent use.<sup>81</sup>

While clinical trial studies demonstrated efficacy, a recent study conducted at Kaiser Permanente in San Francisco proved the real-world effectiveness of PrEP implementation. The study examined 657 high-risk, HIV-negative individuals, most of whom were men who have sex with men. The study observed 388 person-years of PrEP use, with a mean duration of

Truvada® use of 7.2 months, and found no HIV diagnoses over the 657 participants across this time period.<sup>82</sup> Previous studies of PrEP based in the U.S. and around the world have shown that efficacy is very closely linked with adherence.<sup>83</sup>

Based on the modeling done for this plan, scaling up PrEP utilization takes the expected decrease in new cases from 47% to 56%, that is, it accounts for 15% of the expected decrease in HIV diagnoses. Modeling projects that approximately 8,000 total people who are at high risk for HIV infection—African-American and Latino men who have sex with men, African-American and Latina heterosexual women, and African-American and Latino transgender persons—need to consistently utilize PrEP on an annual basis to reach the goal, assuming, as studies support, an 86% efficacy rate across the District.<sup>84</sup> This will be a huge increase from the current PrEP uptake in DC. Currently, from reports of community-based providers offering PrEP, DOH estimates that under 2,000 people have at one point ever used PrEP. This is not a complete report of PrEP participants as it does not include private-practice providers who have prescribed the medication.<sup>85</sup>

To address the limitations on gathering data for PrEP uptake, DOH will utilize several methods that have been shown effective in determining the utilization of PrEP in DC and will track progress toward the goal of a minimum of 8,000 DC residents at high risk for HIV taking PrEP:

- **Data algorithm.** Gilead Sciences, the manufacturer of Truvada®, and CDC have proposed an algorithm that would determine the probability of people utilizing PrEP from insurance claims data. DOH will share this algorithm with DHCF for Medicaid utilization and with the private health insurance carriers to obtain aggregate data on likely PrEP participants. There are limitations to the algorithm as it captures only initial uptake of PrEP and does not confirm consistent use, but it would establish a point-in-time utilization of PrEP.
- **Provider voluntary reporting.** In the engagement, education, and promotion of PrEP among medical providers, DOH will discuss with clinicians the potential to make voluntary reports on aggregate numbers of patients utilizing PrEP.
- **Pharmacy voluntary reporting.** As PrEP requires a prescription, another source of data on PrEP use would be pharmacy data. Pharmacies in the District can be approached to discuss feasibility of a voluntary reporting system. Also, pharmacy benefit management (PBM) data could be accessed to monitor dispensing, because only one medication (Truvada®) can be used for PrEP.

## TASK 4.1

### DOH will expand the network of prescribers of PrEP through increased knowledge and capacity of private medical providers.

PrEP use begins with a prescription. To increase PrEP uptake, DOH will work to expand the network of medical professionals prescribing PrEP in DC. DOH has initiated and will expand a regular roundtable of clinicians willing to prescribe PrEP. This approach also will result in peer-to-peer promotion of the intervention among providers.

DOH will also develop educational materials for medical providers in the DC region. DOH will utilize contractors to deploy clinical educators to private and large-group practices. DOH will work collaboratively with community partners to recruit more prescribers to larger clinical education sessions. The sessions and materials will advise clinicians how to connect people to the network of community partners funded by DOH who can provide counseling, adherence support, and a culturally affirming setting that is integral to PrEP adherence. DOH will continue to engage and provide technical support to community organizations to focus or integrate PrEP into their programming. This also includes building the capacity of providers to offer appropriate care and information for special populations, such as transgender people of color, in culturally affirming settings to ensure PrEP uptake in these communities.

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### **DEMONSTRATION PROJECT: PrEP for Women**

African-American women have the second-highest rate of HIV infection in DC, and PrEP could be an effective prevention tool for many African-American and Latina women. DC Appleseed interviewed providers and advocates in DC and found that the groups at highest risk for HIV infection often are the least likely to know about PrEP or to ask their provider for more information. Recent focus groups of African-American women conducted by DOH found that nearly all the participants were unaware of PrEP. Many were angry to learn that information about PrEP had not been more widely distributed.

DOH and the Washington AIDS Partnership (WAP) will employ \$1 million in funding from the MAC AIDS Fund over the next two years to develop a “DC PrEP for Women” initiative. The initiative will have several aims: (1) to leverage HIV and women’s health providers to adopt and offer PrEP as an effective strategy to reduce HIV infection; (2) to educate high-risk women to increase interest in PrEP; (3) to change and expand the conversation about PrEP with women from “protecting her from him” to “taking care of yourself”; and (4) to increase the number of medical providers prescribing PrEP for women. The initiative’s dual focus—women and providers—is designed to increase requests for PrEP from women and increase the number of providers offering and prescribing it.

To guide the initiative, DOH and WAP will form an advisory committee, comprising practitioners, stakeholders, academics, and program participants. The program will include outreach efforts to widely share information about PrEP. WAP will award funds to organizations for two purposes: 1) to assist community organizations to integrate PrEP into their services and educate women about PrEP as an option to reduce HIV risk and 2) to help Federally Qualified Health Centers develop sexual health training—including trainings on PrEP for healthcare providers and community organizations.

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## **TASK 4.2**

### **DOH will make PrEP starter packs available at the new Health and Wellness Center.**

DOH will re-allocate prevention funding to give resources to more community partners to promote, educate, and engage people about PrEP. First, DOH will implement a PrEP program as part of its new Health and Wellness Center (formerly STD/TB clinics). This will serve as a low barrier entry to obtain PrEP. Before initiating PrEP, an HIV test must confirm a negative

diagnosis. To facilitate quicker access to PrEP, DOH will be acquiring new laboratory equipment for the Health and Wellness Center that will be able to run the preliminary tests required for PrEP initiation and follow-up HIV testing as recommended by FDA (including tests for kidney or liver conditions). DOH will provide a starter pack of either a 30-day or seven-day supply with follow-up visits and routine lab tests. DOH has designated a PrEP adherence specialist position to help participants navigate insurance coverage that will be necessary to access refills after the starter pack is completed. The adherence specialist will also provide counseling on taking the medication.

### **TASK 4.3**

#### **DOH will develop a PrEP-specific telemedicine program.**

DOH will also develop a PrEP-specific telemedicine pilot—similar to the broader telemedicine program outlined in Task 3.7—to engage participants and support PrEP adherence. The DOH clinician and adherence specialist will schedule consultation sessions according to the individual’s availability, including non-standard clinical hours. DOH will also develop an agreement with a laboratory to allow participants to take lab tests in locations other than the Health and Wellness Center. DOH will evaluate the pilot for effectiveness.

### **TASK 4.4**

#### **DOH-funded peer navigators for African-American and Latino men who have sex with men and transgender people of color will be provided to promote knowledge of PrEP.**

As described in Task 2.6, the CDC-funded demonstration project for African-American and Latino men who have sex with men and transgender people of color will include the peer navigator Health Impact Specialist program component to educate and engage individuals about PrEP.

### **TASK 4.5**

#### **DOH will work with Medicaid, MCOs, and private plans to ensure insurance covers PrEP treatment and related clinically recommended laboratory monitoring.**

DOH will work with DHCF and private insurance carriers to ensure coverage of as many components of the PrEP intervention as possible. While insurance coverage for the drug itself is usually sufficient, in some cases, lab testing is not covered by insurance. DOH will work with DHCF and insurance carriers to eliminate any barriers to PrEP use caused by gaps in insurance coverage.



## TASK 4.6

### DOH will monitor the need for a co-payment assistance program and gaps in insurance coverage for PrEP. The District government will fund gaps in coverage for PrEP.

While there are drug assistance payment programs available for PrEP and navigators can help patients access those programs, other costs associated with starting and staying on PrEP can add up. PrEP is effective only when taken as directed, and financial barriers to PrEP access reduce the likelihood of increased uptake—especially among populations that are at the highest risk of infection.

The major expense for PrEP is the medication. Most insurance plans, including DC Medicaid, cover PrEP medication. The clinical costs include medical visits and laboratory tests related to screening for HIV, hepatitis, and STDs, and tests associated with the medication, including kidney and liver function. While insurance coverage for the drug itself is usually sufficient to enable utilization, in some cases, the complementary lab testing is not covered by insurance, which can be a barrier to adherence. Co-pays for office visits to get tested and review results can add up. For undocumented persons, insurance access can also be limited. DOH will work to ensure that cost is not a barrier to protection.

## Post-Exposure Prophylaxis (PEP)

### TASK 4.7

#### DOH will expand access and availability of Post-Exposure Prophylaxis.

Post-exposure prophylaxis (PEP) treatment is a 28-day ART regimen taken after possible exposure to HIV. If treatment is started within 72 hours of exposure, it is highly effective in preventing the development of HIV infection in a patient exposed to HIV through, for example, prior unprotected sex with an HIV-positive partner or injection drug use.<sup>86</sup>

PEP is most widely used by those who are exposed to HIV in occupational settings, such as needle sticks to nurses or first responders. The District government will expand access to PEP for non-occupational exposures, without judgment as to the means of the exposure.

PEP is effectively the “Plan B” for HIV, analogous to emergency contraception to prevent pregnancy after unprotected sex or birth control failure. Prescribing PEP also serves as an opportunity to connect a patient who has shown a risk for future infection to PrEP.

The scale-up of PEP entails some of the elements described previously for PrEP. These include:

- **DOH as PEP provider.** Currently, there is no low barrier or easy-to-access venue for this intervention. Through its new Health and Wellness Center, DOH will dispense a 28-day regimen to those who possibly have been exposed to HIV. DOH will also develop promotional materials to inform District residents of the availability of PEP.
- **Provider education.** DOH will incorporate PEP as an element of its education approaches for medical providers (see similar approach used for PrEP in Task 4.2).
- **Community providers.** DOH will encourage community providers to offer PEP to clients who may have been exposed to HIV.

DOH will monitor the PEP initiative to track initiation, treatment compliance, PrEP uptake, behavioral disinhibition, access to insurance and primary medical care, and other associated factors. DOH will share data with the community on these measures.

## **TASK 4.8**

### **DOH will develop public education campaigns to raise awareness of prevention strategies, in particular PrEP and PEP.**

DOH has demonstrated through evaluation that public education campaigns motivate individuals toward health-seeking behaviors. Through its contractor, Octane Public Relations, DOH conducted an evaluation of the impact of its testing and condom campaigns. The evaluation found that DC residents clearly and consistently received messages about the primary campaign messages to get tested (54%), protect yourself (44%), and practice safe sex (52%). Nearly three-quarters (74%) of all survey respondents said the campaigns made them think about the risks of HIV. More than two-thirds (71%) of survey respondents said they know about the city's free condom services because of the campaigns.<sup>87</sup>

DOH will maintain and revise public education campaigns on testing, care and treatment, and prevention (PrEP and condoms). The programs will contain several important core components: cultural competence and affirmation, practical actions, and the use of appealing media platforms.

## **TASK 4.9**

### **DOH will work with the medical community to improve timely notice to DOH of all new HIV diagnoses.**

*Public Call to Action: Providers should give more timely notice to DOH of a new HIV diagnosis.*

The standard surveillance framework for addressing infectious diseases starts with a health-care professional reporting a communicable condition diagnosis to the public health authority. This allows DOH to begin an investigation of the incident, including notification of people potentially exposed to the virus. The District has one of the shorter time frames for reporting HIV diagnoses; current regulations require medical providers and laboratories to report an HIV diagnosis within 48 hours. Unfortunately, even the current 48-hour time frame is not always followed by practitioners. Further, some providers rely on a laboratory to report to the health department, which is not always timely and does not provide relevant information on the individual.

Standard HIV testing has evolved to allow for quicker confirmation of a positive infection, and, as discussed earlier, starting ART as soon as possible speeds up reaching viral load suppression. For these reasons, DOH will explore the feasibility of requiring reporting of acute HIV infection (a state which occurs immediately after HIV infection, but when some tests do not allow for immediate confirmation of the virus) to identify new cases and make contact with individuals faster. While acute infection presents an immediate interruption opportunity to contact partners for testing, a newly diagnosed individual who is beyond the acute infection phase may have already transmitted the virus to partners.

Current DC regulations require a phone call within two hours for a range of diseases, such as anthrax, botulism, and cholera,<sup>88</sup> so there is precedent in DC law for very early reporting of an infectious disease. DOH will consult with practitioners and develop an appropriate time frame and mechanism for earlier reporting of acute HIV infection.

Partner Services provided by DOH can contact newly diagnosed people and request information on potential partners who might have been exposed. A DOH staff person then contacts the partner without releasing the name of the newly diagnosed person and guides that potentially exposed individual to testing. More timely notification of new diagnoses could initiate the Partner Services intervention sooner and potentially with greater success. DOH will undertake a demonstration project to allow for earlier identification of and intervention for possible partners of a newly diagnosed HIV patient. This could also allow for more effective use of PEP.

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### **DEMONSTRATION PROJECT: Rapid HIV Surveillance and PEP-Plan B**

DOH will develop a demonstration project of a rapid HIV surveillance protocol. The project will assess the effectiveness of a more timely deployment of Partner Services to new HIV diagnoses as a means to interrupt HIV transmissions. Preliminary parameters would include:

- Immediate notification to DOH by providers of a new HIV diagnosis, such as at the time of scheduling the appointment with the patient to inform him or her of the test result.
- Rapid deployment of a DOH Disease Intervention Specialist (DIS) who will arrive at the provider location to be available to the newly diagnosed patient to discuss potential partners.
- DIS will proceed with immediate contact with potentially exposed partners. The DIS would attempt a prompt face-to-face meeting with the partner(s) to administer either a rapid HIV test or draw blood for a laboratory test.
- DIS will also carry PEP starter packs, to provide to the partner immediately or transport the individual to the DC Health and Wellness Center. Prescription or dispensing or referral to the Center are also options.
- To understand phylogenetic aspects of transmission, a more detailed conversation with the newly diagnosed person would be required, either at the time of diagnosis or subsequently. This could lead to a genotype analysis (a process that examines the DNA sequence of the genes in HIV) to trace the transmission network, which would be facilitated by a blood sample for separate laboratory processing. The results could be used to engage or re-engage the individual who transmitted the virus.

DOH has research partners with the DC Cohort study and NIH on a potential collaboration that would support this rapid surveillance deployment, including a robust evaluation. DOH is aiming to implement the collaboration in late 2016.

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## Reducing Stigma

### TASK 4.10

#### **DOH will establish programs to eliminate stigma and educate the community about HIV.**

*Public Call to Action: DC residents and healthcare providers must work to eliminate stigma and educate themselves about HIV. Healthcare providers must educate themselves about new clinical advances to treat and prevent HIV—including PrEP.*

With 18% of District residents reporting they would not tell their friends if they were diagnosed with HIV, and 11% incorrectly fearing they could contract HIV during regular household activities if living with someone who has HIV,<sup>89</sup> education about HIV is still essential. DOH provided funding to Howard University to survey healthcare providers on attitudes and beliefs related to HIV and stigmatizing perspectives. The preliminary, unpublished results indicate that some healthcare providers harbor potentially negative attitudes about people living with HIV: 20% reported wearing double gloves with HIV patients, an unnecessary and potentially stigmatizing precaution; 30% heard healthcare workers talking badly about a person with HIV; 20% agreed or strongly agreed that people with HIV do not care if they infect other people; 38% agreed or strongly agreed that people with HIV engage in irresponsible behavior; and 25% disagreed or strongly disagreed that women with HIV should have babies.<sup>90</sup>

This plan calls all District communities to ensure the city is free of fear, stigma, and discrimination against those with HIV. These negative attitudes not only harm and marginalize people living with HIV, but also perpetuate potentially harmful myths about the disease and transmission. Stigma associated with race/ethnicity, country of origin, documented status, history of substance use and mental illness, and offender status also perpetuate barriers to accessing and providing affirming healthcare. Public messaging can help, but all District residents can seek out information to educate themselves and their peers and reduce stigma. DC Appleseed and DOH will continue to collect data on stigma and hope to see reductions in all of the unfounded negative attitudes listed above through education and other activities.

### TASK 4.11

#### **DOH will promote programs that will help DC residents living with HIV to take control of their healthcare and improve their well-being.**

Most of the tasks contained in the plan relate to the external factors or access to the healthcare system and public health services to address HIV risk and sexual health. Those resources are only effective if the individual engages them. Some of these recommendations are structural and have the potential to improve general health services. Yet, for many, the individual still has to make an appointment, enter into a conversation with a healthcare provider, and request or accept the health intervention. To increase the number of DC residents who do take these steps, DOH will promote more models that encourage individuals to become empowered to take charge of their health.

DOH has supported a model called ManDate, a peer-based approach providing a non-traditional environment for African-American gay men aged 18 to 60 to safely engage in conversations and develop support mechanisms to improve health and wellness, relationships, employment, compatibility with other sectors of their lives (e.g., faith, career, and family), mental wellness, character building, and a more confident identity of self. The settings are usually members' homes where there is a greater comfort level. The sessions often have 50 to 60 regular participants. DOH and community partners are developing ManDate models for Latino gay and bisexual men and African-American and Latina transgender women.

Church and faith-based institutions have historically been a consistent touchstone for African-American women. Daphne Wiggins wrote in her book, *Righteous Content: Black Women's Perspectives of Church and Faith*: "the interpersonal, emotional, or spiritual needs of church and community members were primary in the women's minds, ahead of systemic or structural injustices."<sup>91</sup> DOH has supported a faith-based initiative for African-American women that has featured integrating prevention and wellness into health, women's, men's, and youth ministries. DOH will continue to develop this self-efficacy approach further, including for Latina women.

Peer self-efficacy approaches also have demonstrated effectiveness. DOH has identified and supported models among young persons and transgender persons. DOH will review and promote models for multiple population groups that support self-actualization and success strategies.

## Syringe Exchange Services

In 2005, the District was still barred by Congress from spending any funds on syringe exchange services (SES). As a consequence, the spread of HIV among injection drug users (IDU) who shared needles was rampant. In 2005, 163 new cases of HIV were attributable to IDU. Today that number has plummeted to eight,<sup>92</sup> thanks to the lifting of the congressional ban in 2008 and the work of local organizations like Helping Individual Prostitutes Survive (HIPS) and Family Medical Counseling Services (FMCS). These organizations are funded by the District government and provide clean needles and other services for IDU in DC. A study by researchers at GWU estimated that the SES policy change averted 120 new infections in the first two years after the congressional ban was lifted. The researchers estimate that the \$1.2 million investment in the SES program over those two years led to a \$44.3 million savings for the healthcare system in DC, based on estimated lifetime costs of HIV treatment.<sup>93</sup>

### TASK 4.12

#### **The District government will maintain and adjust funding for syringe exchange services to reach injection drug users in DC.**

The network of SES providers in the District continues to demonstrate effectiveness in engaging injection drug users in a harm-reduction approach to prevent HIV infection. DOH estimates that the number of active injection drug users in the District ranges from 8,000 to 13,000 people.<sup>94</sup> The SES providers served approximately 10,000 people in 2015, representing 77% of estimated active drug users in the District using the highest estimate as a baseline. This is significant coverage of people at risk of HIV exposure. However, there are more people to be served.

Funding for SES providers has remained flat over the last several years; despite this, providers have distributed more and more clean needles. However, continuing to expand services with flat funding is no longer possible. Accordingly, DOH will adjust funding for providers to compensate for increases in expenses and to reach all residents requiring syringe exchange services. DOH will also work with providers to expand programs to reach populations harder to access through traditional syringe exchange services, such as younger people, women, and transgender people.

## Youth Education

While the number of new infections among young people aged 13–24 in DC fell from 107 in 2005 to 69 in 2015, this demographic disproportionately engages in sexual behaviors that accelerate risk for STIs, including HIV, as compared with youth nationally. Across DC, in 2012, 16% of young men and 3% of young women reported initiation of sexual intercourse by age 11, while 25% of young men and 6% of young women reported initiation by age 13.<sup>96</sup> Additionally, 19% of high school students had a recent sexual partner who was three or more years older.<sup>97</sup>

DOH formed a collaboration across healthcare providers, researchers, District government agencies, community organizations, and young people to develop the 2016–2020 Youth Sexual Health Plan.<sup>98</sup> The plan offers a multi-level approach to focus on all areas that shape young people's sexual and reproductive health. While HIV and STI prevention remains a core objective, the plan combines health equity and youth development approaches while looking at the social determinants of youth sexual and reproductive health. It also includes strategies related to the prevention of unplanned pregnancies, support for contraceptive choice, the promotion of health literacy, and the integration of health in all relevant policies.

The Youth Sexual Health Plan sets three ambitious but achievable, goals: (1) provide accessible resources and pathways that support all District youth to make healthy decisions about relationships and sexual health; (2) reduce unintended outcomes of unprotected sex (STI/HIV infections and unintended pregnancies); and (3) enhance District coordination and collaboration to provide an equitable service continuum.

While the steps that follow provide some elements of the approach for young people, the Youth Sexual Health Plan contains detailed recommendations and action steps that will create positive resources and pathways that support all DC youth to make healthy decisions around relationships and sexual health.

### TASK 4.13

#### **DOH will create a “trusted adults model” to support healthy decision-making and increase the availability of sexual health information.**

The classroom is not the only place to engage young people, and encouraging better decision-making will help to reduce risky behavior and HIV infections. In order to empower adults that young people trust with information about STIs and HIV, as well as to share information about how to encourage healthy decision-making, DOH will partner with DCPS and DC public charter schools to identify optimal channels for engagement with and education for students' caregivers. This could include developing an informational text-message service for caregivers,

and establishing a mechanism to recruit and train champions of the trusted adult model. These efforts will dovetail with additional recommendations to create consistent, medically accurate messaging for young people in various settings.

## **TASK 4.14**

### **DCPS and DC public charter schools must provide appropriate HIV-prevention education to all DC students and ensure that students' understanding is assessed regularly.**

The DC Youth Sexual Health Plan recognizes the need to implement professional development for DCPS and DC public charter school staff around STIs and HIV. This is especially important in light of 2016 changes to DC's Health Education Standards, written by the Office of the State Superintendent for Education (OSSE).

In May 2010, the DC Council passed the Healthy Schools Act ("HSA"), a landmark law designed to improve the health and wellness of students attending all DC schools. The law created standards and oversight in a number of areas, including school nutrition, physical education, health and wellness, and health education. The HSA was enacted with the understanding that it would help ensure better HIV education for DC schoolchildren.<sup>99</sup>

To meet this goal, the health education requirements of public and public charter schools "shall meet the curricular standards adopted by the State Board of Education."<sup>100</sup> DCPS officials noted in interviews with DC Appleseed that they are planning professional development programs to ensure that teachers understand how to present the new Health Education Standards effectively.

Charter schools use their own curriculum and generally do not coordinate with DCPS on such matters, so there is nothing outside of the HSA and framework of the education standards that would ensure consistency and excellence in HIV education in public charter schools. The Public Charter School Board should accordingly ensure that students in public charter schools receive consistent education about HIV and STI prevention and that staff are trained and empowered to deliver lessons.

In the last DC Appleseed report card in 2014, OSSE received a grade of "Insufficient" for its performance on HIV education, largely due to a lack of transparency in data on student mastery of the Health Education Standards.<sup>101</sup> OSSE did not report school-specific data for results of the DC Comprehensive Assessment System (CAS) Health Assessment—the standardized test taken by all DC students at the time. Since then, OSSE has revised the Health Education Standards and replaced the CAS with the Partnership for Assessment of Readiness for College and Careers (PARCC). The Health Assessment of the PARCC is currently under development; the Mayor will work with OSSE to ensure that the new assessment tool provides an accurate measure of student understanding of this important issue and that parents can monitor the success of their child's school in delivering HIV-prevention education.

## TASK 4.15

### All DC schools must meet their sexual health education obligations under the Healthy Schools Act.

In conversations with DCPS officials, DC Appleseed learned that most schools are not currently meeting all of the obligations of the HSA.<sup>102</sup> Providing assessment data, as discussed above, for parents will create transparency about student proficiency, but it is a separate task to ensure that all students receive the level of sexual health education that the DC Council intended when passing the HSA.



# Conclusions and Next Steps

This document serves as a blueprint to achieve the 90/90/90/50 goals. However, it is not intended to be static. As in the design and construction of a building, alterations and additions will be needed as the work evolves. The results of demonstration projects will support change to accommodate new strategies. Advances in research will offer new interventions and approaches. For example, if this plan were prepared just a few years ago it would not have included PrEP; today the model shows that this plan could not reach its goals without PrEP.

The 90/90/90/50 plan kicks off a new era of government engagement through a series of tasks and measures to track the progress toward achieving ambitious goals. DOH, Mayor Bowser, and DC Appleseed chose 2020 as the deadline for these changes to foster a sense of urgency. To meet this high benchmark, the work must start today. The next steps are summarized as follows:

- DC Appleseed and DOH will collaborate on the development of a data dashboard to track the progress of the plan's implementation. The dashboard will be modeled on that of New York state. DOH is in the process of developing a similar data dashboard to track the Healthy People 2020 goals. DC Appleseed and DOH will study and leverage the work on that initiative as a starting point.
- DOH will also continue to publish its annual surveillance report and interim surveillance report, which will contain data related to the plan. DOH has committed to enhancing the functionality of a web-based application of its core surveillance data. DOH's intention is to utilize the website to update surveillance data on a quarterly basis.
- In the past, DC Appleseed issued yearly report cards, tracking the District's progress on addressing the HIV epidemic. After the plan is published, DC Appleseed will resume its role of providing independent analysis by issuing a yearly report summarizing progress on the plan. DC Appleseed and DOH both intend to report progress and engage with the community throughout the year.
- The plan will be supplemented with a cost-effectiveness analysis of the proposed tasks. While the cost analysis was originally intended for inclusion in the plan, it became evident that there needed to be a separate focused effort. Within six months of issuing this plan, DC Appleseed and DOH will prepare a supplemental study of cost-effectiveness that will inform the ongoing budget planning.
- While the plan presents the framework and portfolio of recommendations to achieve the 90/90/90/50 goals, DOH, in consultation with DC Appleseed and community partners, will develop more specific action steps for the elements of the plan listed here, with time frames and expected outcomes. This will include plans to implement interagency cooperation where appropriate. DOH will ensure that all implementation outlines are prepared within 12 months.
- The development and issuance of the 90/90/90/50 plan coincides with federal planning requirements. CDC and HRSA each have had separate planning requirements under the HIV Prevention Cooperative Agreement for a Jurisdictional HIV Prevention Plan and

- the Ryan White CARE Program for a Comprehensive Care Plan. In 2015, CDC and HRSA announced that they would offer jurisdictions the opportunity to prepare a coordinated plan and issued the “Integrated HIV Prevention and Care Plan Guidance, including the Statewide Coordinated Statement of Need, CY 2017–2021.” The Ryan White Planning Council and the HIV Prevention Planning Group—both of which include government and community representatives—have formed a joint working group to prepare the coordinated plan, due to CDC and HRSA on September 30, 2016. The 90/90/90/50 plan has informed that planning process and development.
- Each year, DOH prepares applications or continuing applications for its federal grants. In these plans and applications, though there may be specific requirements pertinent to the program area, the 90/90/90/50 plan will serve as the core framework for goals, objectives, and activities.
- DC Appleseed and DOH will consider a time frame to update the plan as necessary that will reflect progress made or amendments to the tasks. DC Appleseed and DOH will incorporate consultation with community stakeholders when changes are made to the plan.

The District now joins a handful of states and cities that have been inspired by the proven and promising strategies to target an end to the HIV epidemic. While work continues on potential vaccines or cures that would truly eliminate HIV, even without those breakthroughs there are the tools at hand to reduce incidence dramatically.

The time to act is now. There is momentum in DC, as well as the necessary leadership and will. The work will not be easy, and it will take support from community partners and all District residents. But the opportunity is there. Working together, DC can lead the nation and truly end the epidemic in the District.

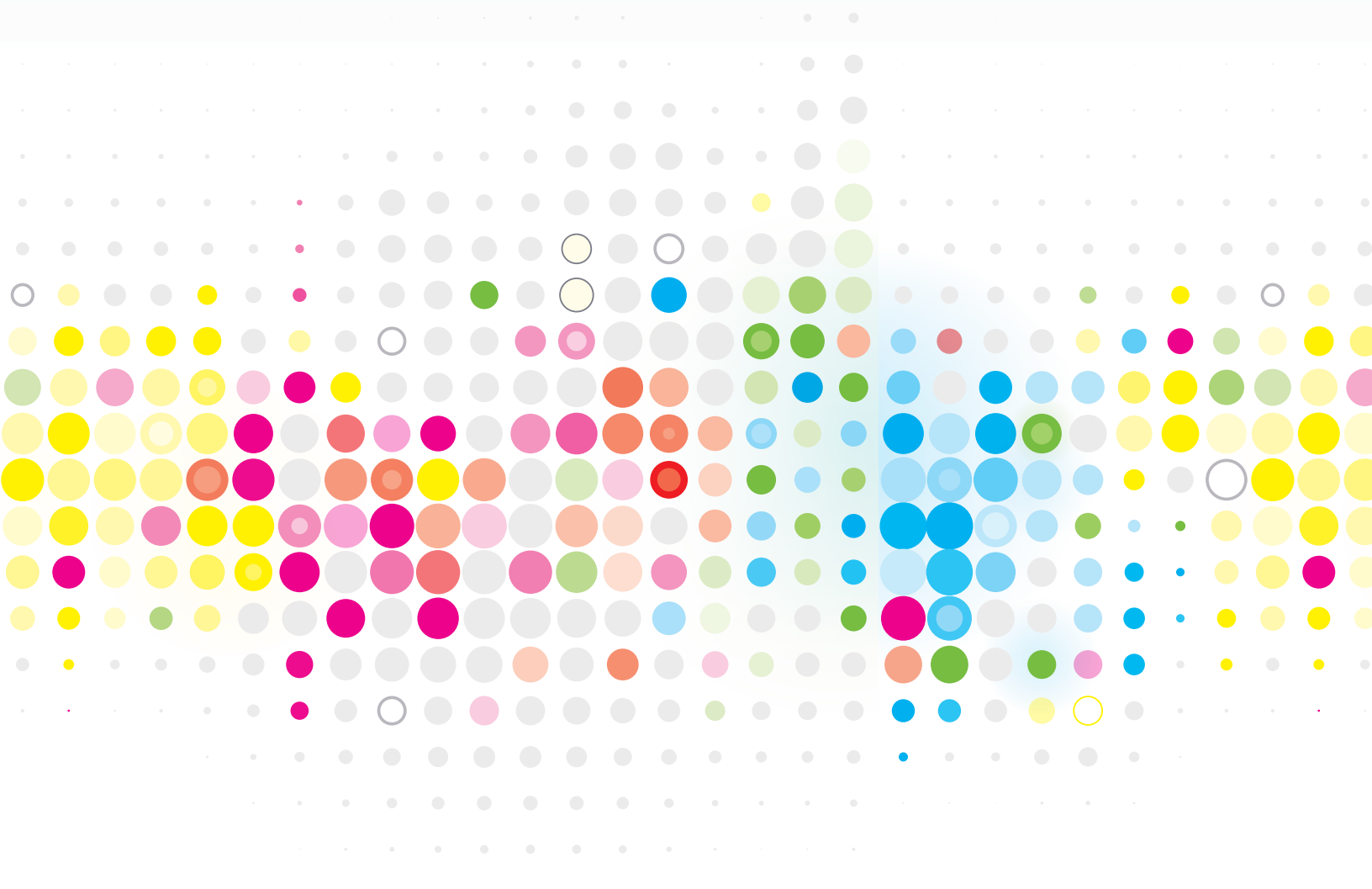
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- <sup>52</sup> D.C. Dep't of Health HIV/AIDS, Hepatitis, STD, and TB Admin., *supra* note 1.
- <sup>53</sup> Myron S. Cohen, Marybeth McCauley & Theresa R. Gamble, Nat'l. Inst. of Health, *HIV treatment as prevention and HPTN 052*, 7 Curr Opin HIV AIDS. 99, 99-105 (2012).
- <sup>54</sup> Findings of the PARTNER study involved 767 couples and reflected 894 couple-years of follow-up, with an estimated 16,400 occasions of condomless gay sex and 28,000 instances of condomless heterosexual sex occurring within that period. Extrapolating from this statistical data and taking statistical uncertainty into account, researchers estimated that the maximum chance of HIV transmission was 4% per year for couples having anal sex, where the insertive partner was HIV-positive and where there is ejaculation. See Alison Rodger et al, *Abstract: HIV Transmission Risk Through Condomless Sex If HIV+ Partner On Suppressive ART: PARTNER Study*, <http://www.croiconference.org/sites/default/files/abstracts/153LB.pdf> (last visited July 22, 2016).

- <sup>55</sup> Opposites Attract is an ongoing observational study of serodiscordant gay couples in Australia, Thailand, and Brazil. The study began recruiting in 2012 and conducted an interim analysis in 2014; as in the PARTNERS study, no instances of HIV transmission have been observed so far in the Opposites Attract study. Statistical uncertainty means that the estimated transmission risk is between 0-7% based on current data. This uncertainty margin will likely narrow when final results are published. See A Grulich et al., *HIV Transmission in Male Serodiscordant Couples in Australia, Thailand and Brazil* (2015), <http://www.croiconference.org/sites/default/files/posters-2015/1019LB.pdf> (last visited July 22, 2016).
- <sup>56</sup> DC Dep't of Health, HIV/AIDS, Hepatitis, STD, & TB Admin. Enhanced HIV/AIDS Reporting System (eHARS).
- <sup>57</sup> *Id.*
- <sup>58</sup> *Id.*
- <sup>59</sup> Amanda D. Castel AD, Measuring Engagement and Retention in HIV Care in Washington, DC. Second National CFAR/APC HIV Continuum of Care Working Group Meeting, Washington, DC, presentation, February 3, 2014.
- <sup>60</sup> This initiative was made possible with generous support from the Bristol-Myers Squibb Foundation and the MAC AIDS Fund. DOH is supporting the initiative's evaluation efforts.
- <sup>61</sup> The indications would be, for example, no viral load test within a defined period of time (such as more than six months), a viral load test that shows the person has more than 200 microliters of virus, a low CD4 test result (under 200).
- <sup>62</sup> D.C. Dep't of Health HIV/AIDS, Hepatitis, STD, and TB Admin., *supra note 34*.
- <sup>63</sup> Sharma P & Agarwal P. *Mobile phone text messaging for promoting adherence to antiretroviral therapy in patients with HIV infection*: RHL commentary, The WHO Reproductive Health Library; Geneva: World Health Organization (2012), [http://apps.who.int/rh/hiv\\_aids/cd009756\\_sharmap\\_com/en/](http://apps.who.int/rh/hiv_aids/cd009756_sharmap_com/en/).
- <sup>64</sup> Tara Horvath et al., *Mobile phone text messaging for promoting adherence to antiretroviral therapy in patients with HIV infection*, 3 Cochrane Database of Systematic Reviews (2012).
- <sup>65</sup> Metropolitan Washington Regional Ryan White Planning Council, *2012-2014 Comprehensive HIV Care Plan* (2014), [http://doh.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/Comprehensive%20HIV%20Care%20Plan%202012-2014%20%282%29\\_0.pdf](http://doh.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/Comprehensive%20HIV%20Care%20Plan%202012-2014%20%282%29_0.pdf). >.
- <sup>66</sup> *Id.*
- <sup>67</sup> D.C. Dep't of Health, *Appendix B: HOPWA 5-Year Consolidated Plan, FY2011-2015 and HOPWA FY2011 Action Plan*, (Mar. 28 2014), [http://dhcd.dc.gov/sites/default/files/dc/sites/dhcd/release\\_content/attachments/20336/03%20Appendix%20B-HOPWA%20FY11-15%20Con%20Plan.pdf](http://dhcd.dc.gov/sites/default/files/dc/sites/dhcd/release_content/attachments/20336/03%20Appendix%20B-HOPWA%20FY11-15%20Con%20Plan.pdf).
- <sup>68</sup> U.S. Dep't of Hous. & Urban Affairs, *HOPWA Performance Profile - Formula Grantee: District of Columbia* (Mar. 29, 2015), [https://www.hudexchange.info/resource/reportmanagement/published/HOPWA\\_Perf\\_GranteeForm\\_00\\_WASH-DC\\_DC\\_2013.pdf](https://www.hudexchange.info/resource/reportmanagement/published/HOPWA_Perf_GranteeForm_00_WASH-DC_DC_2013.pdf).
- <sup>69</sup> *Id.* (HOPWA data not published)
- <sup>70</sup> Ehren Dohler et al., *Supportive Housing Helps Vulnerable People Live and Thrive in the Community*, Ctr. on Budget & Policy Priorities (2016), <http://www.cbpp.org/sites/default/files/atoms/files/5-31-16hou.pdf>.
- <sup>71</sup> *Id.*
- <sup>72</sup> Hasina Samji et al., *Closing the Gap: Increases in Life Expectancy Among Treated Hiv-Positive Individuals in the United States and Canada*, 8 PLOS ONE 1. 1 – 8 (2013).
- <sup>73</sup> Jean B. Nachega et al., International Labour Organization, *The Impact of Employment on HIV Treatment Adherence*, (2013).
- <sup>74</sup> Presentation by Liza Conyers, Penn State University and Paul Datti, University of Scranton on National Working Positive Coalition Employment Needs Survey (2010). The survey was funded by the National Institute of Disability and Rehabilitation Research and AIDS Institute of New York State.
- <sup>75</sup> [https://www.health.ny.gov/health\\_care/medicaid/redesign/supportive\\_housing\\_initiatives.htm](https://www.health.ny.gov/health_care/medicaid/redesign/supportive_housing_initiatives.htm)
- <sup>76</sup> 42 U.S.C. § 12132.
- <sup>77</sup> See *Bragdon v. Abbott*, 524 U.S. 624, 624 (1998) (holding that HIV status, even pre-symptomatic HIV, is a disability under the definition in the ADA). Other local and federal statutes and regulations also guarantee protections for individuals with disabilities, e.g. Rehabilitation Act, 29 U.S.C. § 701 *et seq.*; Fair Housing Act, 42 U.S.C. § 3601 *et seq.*; D.C. Human Rights Act, D.C. Code § 2-1401.01 *et seq.*; D.C. Homeless Services Reform Act, D.C. Code § 4-751.01 *et seq.*; D.C. Mun. Regs. tit. 29, § 29-2500 *et seq.* The U.S. Department of Justice in the past has expressed concerns about the District's compliance with a settlement agreement related to ADA requirements. Letter from David W. Knight, Trial Att'y, Disability Rts. Sec., U.S. Dep't of Just. to Fred Swan, Admin., D.C. Dep't of Human Services and Sakina B. Thompson, Assistant Attorney General, D.C. Dep't of Human Servs., Off. of Gen. Couns. (Aug. 17, 2010).
- <sup>78</sup> 42 U.S.C. §§ 12181-82.
- <sup>79</sup> *Pierce v. D.C.*, 128 F. Supp. 3d 250 (D.D.C. 2015), *reconsideration denied*, *Pierce v. D.C.*, 146 F. Supp. 3d 197 (D.D.C. 2015).
- <sup>80</sup> U.S. Food & Drug, *FDA Approves First Drug for Reducing the Risk of Sexually Acquired HIV Infection*, (July 16, 2012), <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm312210.htm>.
- <sup>81</sup> While efficacy has varied among PrEP clinical trials, proper adherence is paramount. The CDC notes that trials have shown efficacy at around 90% for participants who had evidence of the drug in their blood—indicating adherence. U.S. Dep't of Health and Human Servs., Ctrs. for Disease Control and Prevention, *PrEP: A New Tool for HIV Prevention* (Aug. 2012), [http://www.cdc.gov/hiv/pdf/prevention\\_prep\\_factsheet.pdf](http://www.cdc.gov/hiv/pdf/prevention_prep_factsheet.pdf).

- <sup>82</sup> Jonathan E. Volk et al., *No New HIV Infections with Increasing Use of HIV Pre-Exposure Prophylaxis in a Clinical Practice Setting*, J. Clinical Infectious Diseases, <http://caps.ucsf.edu/wordpress/wp-content/uploads/2015/09/KaiserPrEP.pdf>.
- <sup>83</sup> It is important to note that many critics of PrEP have raised concerns, but studies show that these are unfounded. A major concern of those who oppose widespread use of PrEP is that it will encourage more risky sexual behavior—specifically, that it will encourage those on PrEP to decrease use of condoms—that would lead to an increase in STIs. Risk compensation has been identified as a deterrent to providers in prescribing PrEP, as well as a key area of concern for policymakers and other stakeholders. Sarah K. Calabrese & Kristen Underhill, *How Stigma Surrounding the Use of HIV Pre-Exposure Prophylaxis Undermines Prevention and Pleasure: A Call to Destigmatize “Truvada Whores,”* 105 Am. J. Pub. Health 1960, 1960-64 (2015). But studies conducted after PrEP was approved by FDA have concluded that PrEP does not lead to an increase in sexual risk behaviors. In the San Francisco study, of the 143 PrEP users who completed a survey about behavior change after six months of PrEP use, survey respondents on aggregate reported a decrease in risky sexual behavior. Specifically, 74% of survey respondents reported an unchanged number of sexual partners, 15% reported a decrease, and 11% reported an increase. Further, condom use was unchanged in 56% of respondents, decreased in 41% of respondents, and increased in 3% of survey respondents. Jonathan E. Volk et al., *supra* note 83 In another survey of 219 couples, over half of the HIV-negative couples reported that they would not change their current condom use if they or their partner were to take PrEP. (Colleen Hoff et al., *Attitudes Towards PrEP and Anticipated Condom Use Among Concordant HIV-Negative and HIV-Discordant Male Couples*, 29 AIDS Patient Care & STDs 408, 408-17 (2015). And yet another study of condom use in highly sexually active, HIV-negative gay and bisexual men found that only 10% of men who had not recently engaged in condomless high risk sexual activities said they felt that use of PrEP would lead them to begin engaging in such high risk behavior. (Christian Grov et al., *Willingness to Take PrEP and Potential for Risk Compensation Among Highly Sexually Active Gay and Bisexual Men*, 19 AIDS Behav. 2234, 2234-44 (2015).; Of note, in reporting risk compensation behavior associated with PrEP, certain researchers have relied on broad assumptions, based on the observed presence of such behavior after highly active antiretroviral therapy (HAART) became widely available to consumers. Lisa Eaton & Seth Kalichman, *Risk Compensation in HIV Prevention: Implications for Vaccines, Microbicides, and Other Biomedical HIV Prevention Technologies*, 4 Current HIV/AIDS Rep. 165, 165-72 (2007).
- <sup>84</sup> Sheena McCormack et al., *supra* note 8; Jean-Michel Molina et al., *supra* note 8.
- <sup>85</sup> There are additional challenges in collecting data on PrEP: (1) it is not a medical condition in itself and hence does not have a diagnostic code, under the International Classification of Diseases (ICD) system; (2) there is no health practice under the Current Procedural Terminology (CPT) code system associated to PrEP; and (3) PrEP is not reportable to the health department as a health condition or practice.
- <sup>86</sup> Dawn K. Smith et al., U.S. Dep’t of Health and Human Servs, *Antiretroviral postexposure prophylaxis after sexual, injection-drug use, or other nonoccupational exposure to HIV in the United States: recommendations from the U.S. Department of Health and Human Services*, 54 MMWR Recommendations and Rep. 1, 1-20 (Jan. 21, 2005).
- <sup>87</sup> See Octane Pub. Relations & Advert., *supra* note 11
- <sup>88</sup> D.C. Mun. Regs. tit. 22-B.
- <sup>89</sup> D.C. Dep’t of Health, *supra* note 6.
- <sup>90</sup> Howard University Department of Pediatrics & Child Health, *HIV Related Stigma in Healthcare Providers: Preliminary Survey Report, 2016*, (Not published).
- <sup>91</sup> Daphne C. Wiggins, *Righteous Content: Black Women’s Perspectives of Church and Faith*, NYU Press (2004).
- <sup>92</sup> D.C. Dep’t of Health HIV/AIDS, Hepatitis, STD, and TB Admin., *supra* note 1
- <sup>93</sup> Monica S. Ruiz et al., *Impact Evaluation of a Policy Intervention for HIV Prevention in Washington, DC*, 20 AIDS and Behavior 22, 22-28 (2016).
- <sup>94</sup> Monica S. Ruiz et al., *Using Capture-Recapture Methods to Estimate the Population of People Who Inject Drugs in Washington, DC*, 20. AIDS Behav. 363, 363-368 (2015).
- <sup>95</sup> D.C. Dep’t of Health HIV/AIDS, Hepatitis, STD, and TB Admin., *supra* note 1.
- <sup>96</sup> Julie C. Ost & Laura K. Maurizi, Office of the State Superintendent of Education: Washington, DC, *2012 District of Columbia Youth Risk Behavior Survey Surveillance Report 23* (2013).
- <sup>97</sup> *Id.*
- <sup>98</sup> D.C. Dep’t of Health HIV/AIDS, Hepatitis, STD, and TB Admin., *D.C. Youth Sexual Health Plan 2016-2020* (2016), <http://doh.dc.gov/node/1188236>.
- <sup>99</sup> D.C. Code § 38-824.02 (2016).
- <sup>100</sup> D.C. Code § 38-824.02(d) (2016).
- <sup>101</sup> DC Appleseed Center et al., *HIV/AIDS in the Nation’s Capital Report Card No. 9* (2014), <http://www.dcappleseed.com/wp-content/uploads/2013/08/9th-report-card.pdf>.
- <sup>102</sup> The HSA requires minimum weekly time spent on effective health education for grades K-8. See DC Code § 38-824.02 (2016) (initially requiring “at least 15 minutes of health education per week for students in grades K-8;” starting in the 2014 2015 school year, the HSA curricular requirement rose to 75 minutes per week).



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