Maryland's Integrated HIV Plan 2018-2022: A Comprehensive, Coordinated Response to HIV for Baltimore and Maryland

Maryland Department of Health
Prevention and Health Promotion Administration

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Introduction

Planning related to HIV response has a long history in the United States. As a result of community action in response to efforts to address HIV in the 1980s, the Health Resources and Services Administration (HRSA) and the Centers for Disease Control and Prevention (CDC) introduced planning and community input requirements to obtain federal HIV funding in 1991 and 1993 respectively. However, before the publication of the National HIV/AIDS Strategy in 2010, most governmental public health planning was conducted at the state and local levels. State and local plans incorporated activities supported by various federal funding streams specific to the activity and jurisdiction, which sometimes resulted in duplicative or contradictory processes and products. For example, until 2011, Maryland had separate plans for HIV care services and HIV prevention activities. At the same time, Baltimore City developed its own plans for HIV care services and HIV prevention. To complicate matters further, several counties in Maryland are part of the District of Columbia (DC) standard metropolitan statistical area (MSA), and certain HIV care services in Maryland fell under DC plans.

In 2010, HRSA published the National HIV/AIDS strategy. The strategy was updated in July 2015, encompassing activities and goals looking forward to 2020.

The four goals of the 2020 National HIV/AIDS plan are as follows:

1. Reducing new HIV infections;
2. Increasing access to care and improving health outcomes for people living with HIV;
3. Reducing HIV-related disparities and health inequities; and
4. Achieving a more coordinated national response to the HIV epidemic.

In keeping with the fourth goal of the 2020 National HIV/AIDS Strategy, federal agencies responsible for HIV activities have unified planning requirements and encouraged cooperative, multi-jurisdictional plans. Officials at the Maryland Department of Health (MDH) and the Baltimore City Health Department began discussions in the with community stakeholders and various planning bodies including the Baltimore HIV Services Planning Council, Baltimore HIV Commission, and the Maryland HIV Planning Group to create a common framework for Maryland's HIV plan to ensure consistency. The Maryland Integrated HIV plan (the Plan) is the result of those discussions.

The Plan is a strategic document for Maryland and Baltimore through 2022. As activities in the plan are operationalized, additional plans specific to those activities may need to be developed.

Plan Vision

Adapted from the vision of the 2020 National HIV/AIDS Strategy, the vision for the Maryland Integrated HIV Plan is below:

Maryland will become a place where new HIV infections are rare and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity or socio-economic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination.

Plan Goals

Maryland concurs with the overarching goals of the 2020 National HIV/AIDS Strategy and has adopted the national goals for the Plan. Maryland will assess progress based on the indicators from the 2020 National HIV/AIDS Strategy. The indicator calculations have been adjusted slightly to conform with the Maryland HIV continuum of care framework and calculations.

1. Reduce New Infections

The specific objectives to be achieved by 2020 are:

1) Increase the percentage of persons living with HIV who know their status to at least 90 percent;
2) Reduce the number of new HIV diagnoses by at least 25 percent;
3) Reduce the percentage of young gay and bisexual men who have engaged in HIV risk behaviors by at least 10 percent.

2. Increase Access to Care and Improve Health Outcomes for People Living with HIV

The specific objectives to be achieved by 2020 are:

1) Increase the percentage of newly diagnosed persons linked to HIV medical care within three months;
2) Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least 90 percent;
3) Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least 80 percent;
4) Reduce the death rate among persons with diagnosed HIV infection by at least 33 percent.

3. Reduce Health Disparities and Inequities

The specific objectives to be achieved by 2020 are:

1) Reduce disparities in the rate of new diagnoses by at least 15 percent among gay and bisexual men;
2) Reduce disparities in the rate of new diagnoses by at least 15 percent among young Black gay and bisexual men;
3) Reduce disparities in the rate of new diagnoses by at least 15 percent among Black women;
4) Increase the percentage of youth with diagnosed HIV infection to at least 80 percent;
5) Increase the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least 80 percent.

4. Achieve a More Coordinated Response

The Plan was created to help Maryland achieve this goal. Given the nature of funding for HIV-related interventions and services and the geography of Maryland, a coordinated response is key to addressing HIV in Maryland.

Maryland's progress to date on these goals is shown on pages 33-36 of the Plan. Maryland and Baltimore have improved outcomes related to reducing new HIV diagnoses and increasing entry into care. However, reducing disparities and achieving 80 percent viral suppression remain a challenge.

Planning Process

Once stakeholders had agreed to a common plan framework, MDH, Baltimore City Health Department, the Baltimore HIV Planning Council, and the University of Maryland at College Park held a series of joint and individual meetings, town halls, and public forums. The purpose of these meetings was to discuss and refine the framework, develop and prioritize strategies, and collect information on community needs. Refinement of the needs and strategies occurred iteratively over a year and a half. While MDH took primary responsibility for coordinating the plan draft, the Plan Values were highlighted throughout the planning process.

Plan Values

Harm Reduction

All HIV treatment and prevention programs should start "where people are," knowing that not all persons are immediately prepared to eliminate all risk behaviors and adopt all risk reduction measures. Harm reduction strategies are effective in reducing HIV transmission and acquisition risk because they encourage achievable steps and help keep people engaged so that they are more readily linked to services when they are ready to access them.

Health Equity

HIV prevention and care efforts exist in the context of social inequity, stigma, and discrimination. Programs must focus on services for those disproportionately impacted by HIV, and services must be delivered in a way that is sensitive to social environments and root causes of inequity. While addressing the entire array of social determinants of health (see Figure 1) may be outside of the scope and ability of many programs, every effort should be made to acknowledge and incorporate them into programming.

Self-Determination

Activities should honor an individual's autonomy in decision-making and voluntary participation. Programs must give participants full and factual information and recommendations, while leaving the decisions to them. For example, while planners and practitioners often speak of "linking" people to care, it is necessary to acknowledge that people choose to *enter* care; the primary action is taken by the person living with HIV, not the person providing assistance or guidance.

Sexual Health Promotion

The World Health Organization defines sexual health as "…a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled." [1]

While awareness of the risk of sexual behaviors must be disseminated through culturally appropriate sex education, sex as a component of a healthy life and aspects of healthy sexual relationships must also be incorporated into the curriculum. Sex education must emphasize the importance of respect toward self and others in all sexual relationships and the right of all persons to have sexual relationships characterized foremost by autonomous decision-making and mutual respect.

The efforts outlined in this Plan should be placed in context of a larger sexual health framework. Efforts that focus solely on risk or fear may be insufficient and counterproductive.

Social Determinants of Health

Health disparities in HIV are either created or exacerbated by complex social and structural determinants of health. These determinants can be individual, social, societal, and related to health care systems. They are also interrelated. Societal determinants include policies, social and economic structures, cultures, and norms. Social determinants include education, occupation, income, gender, and race/ethnicity. Individual determinants include resources, social connections, psychological health, behavioral health, and biology. Determinants related to health care systems include provider knowledge and behavior, health care organization structure and services, insurance coverage, and coordination. Other determinants include the availability of quality education and food, employment and housing options, involvement in the criminal justice system, and neighborhood environments.

The Healthy People 2020 framework for social determinants of health (See Figure 1) shows the codependent interplay of factors that can either help or hinder a person's health. Economics and financial security play a significant role in an individual's health. For example, unemployment disproportionately affects many of the same Marylanders that are most susceptible to contracting HIV. According to Healthy People 2020, 27.2 percent of people who identify as Black or African-American as well as 19.4 percent of people 18-24 were living in poverty in 2014. People living in poverty are often forced to make decisions about which financial responsibilities should take priority. People living in poverty may also lack stable housing and often have to move several times a year when circumstances change. Moving from place to place makes it difficult to make and keep appointments, pick up medications from the pharmacy, and create a sense of normalcy that would allow someone to consistently engage in health care. Structural and policy changes around education, workforce development, living wage, and affordable housing would help lift and keep people out of poverty.

Figure 1: Social Determinants of Health Source: Healthy People 2020

Incarceration is another social determinant that can affect HIV vulnerability. High or disproportionate incarceration and recidivism rates in certain communities can reduce opportunities for economic and educational advancement; disrupt family and community relationships; influence educational and occupational opportunities, and change norms related to sex, violence, and drug use. [2] According to data from The Sentencing Project, in 2014, Black adults in Maryland were being imprisoned at a rate of 862 per 100,000. In comparison, white adults were imprisoned at a rate of 185 per 100,000 that same year. [3] This disparity is also evident when comparing rates of imprisonment among Maryland's juveniles: as of 2013, the rates of Black and Latino youth in custody were 280 and 84 per 100,000 respectively. Among white youth, rates of custody in 2013 were 43 per 100,000. [3] According to the US Census, nearly 60 percent of Marylanders identify as white, 30 percent as Black, and 10 percent as Latino. The rates of incarceration are not commensurate with the racial/ethnic makeup of the state.

Disparities in the rate of incarceration may be addressed through various strategies including pursuing legal and policy changes for sentencing, record expungement for certain offenses, greater enforcement of existing anti-discrimination protections, and informing returning citizens of their rights, and where to seek help.

The National HIV/AIDS Strategy states:

> It is imperative that the conditions in which people live, learn, work, play, and pray facilitate-rather than detract from-their ability to lead healthy lives. Such conditions include the background prevalence of HIV in sexual and drug networks as well as housing, education, employment, and family and social support systems. It has become abundantly clear that these social determinants of health are significant factors in the ability to meet the goals of the Strategy. More work is needed to test new models that advance health in a variety of settings. Work is underway to develop models for trauma-informed primary care that offer promise to change the health care environment in ways that reduce stress on patients and providers alike, and improve HIV and other health outcomes. [4]
>
> To reduce disparities among groups, efforts must be made to reduce the risk of HIV transmission not only at the individual level, but also at community and societal levels as well. HIV is often only one of many conditions that adversely affects communities at greater risk for HIV infection. In many cases, it is not possible to effectively address HIV transmission or care without also addressing structural factors and social determinants of health. Although there have been some successful efforts to address HIV on multiple levels, there are few proven models associated with reducing HIV incidence or increasing access to care that have a focus on broader social determinants and structural factors that influence health outcomes. [4]

Needs Assessment

Needs Assessment

MDH, the Baltimore City Health Department HIV Commission, and the Greater Baltimore HIV Planning Council each engaged in numerous listening and discussion sessions specific to the Plan framework of the expanded continuum. MDH and stakeholders came together for a statewide plan meeting on February 2, 2016 and further refined strategies. MDH held local engagement gatherings outside Baltimore (Eastern Shore, Southern, Western, and Prince George's and Montgomery counties) to ensure representation of regional variation in the plan.

Providing pre-exposure prophylaxis (PrEP) and expanding syringe services programs beyond Baltimore emerged as important needs. Additionally, all stakeholders agreed that routine HIV testing represented the

greatest opportunity to reduce the level of undiagnosed infection in the state. The discussions also suggested that there was a clear and consistent need for additional services for persons living with HIV such as housing, transportation, mental health and substance use treatment, dental care, and assistance with medical visit and laboratory copays.

Stakeholders discussed coordination of care in a variety of settings. In Baltimore, challenges often centered on sufficient navigation of many different providers; at times it is difficult for both clients and providers to keep track of who is offering what services. Some stakeholders expressed support for co-located services, but that was balanced by the wish that funders supported providers at "what they were good at." Another issue was the lack of ability of persons living with HIV to access services "a la carte" - that is, some providers required that persons become medical patients in order to access any services within the same system.

Additional coordination problems in areas close to Washington DC were identified. Because persons living with HIV may access services across the DC Metropolitan Statistical Area (MSA), tracking patient care across jurisdictions is especially challenging. For the Eastern Shore, Western, and Southern regions of the state, relatively low morbidity and smaller population centers identifying and navigating patients to providers is simple since there are few providers available. Stakeholders encouraged cultivation of more infectious disease providers with HIV expertise in these areas.

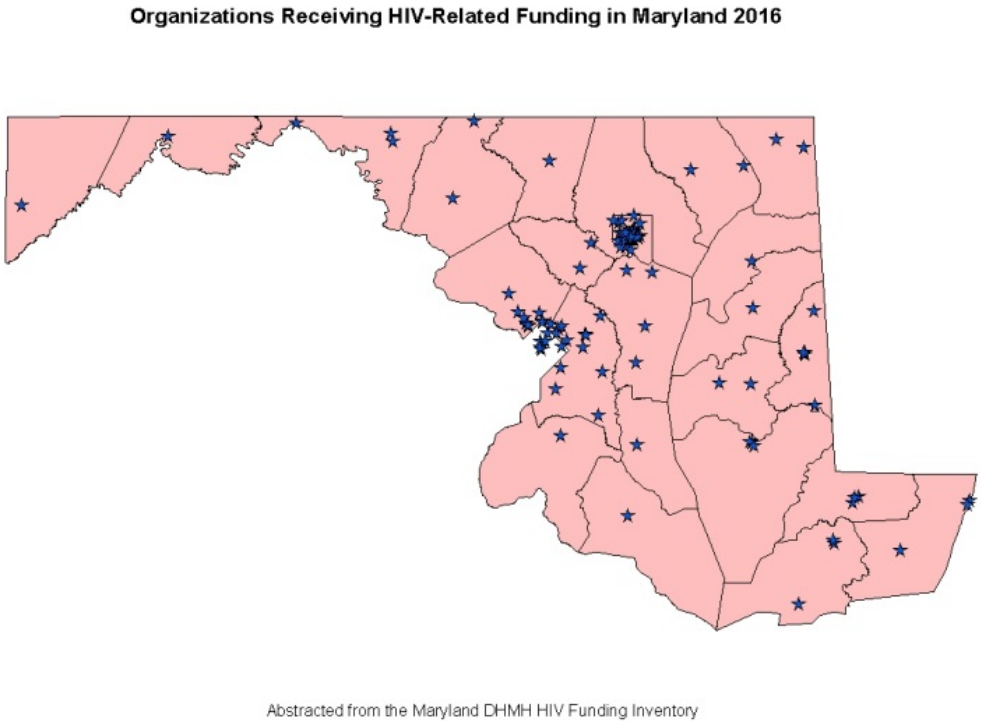

Figure 2: Organizations Receiving HIV-Related Funding in Maryland 2016

Community action items to develop and secure funding for HIV in Maryland:

- Engage industry and foundation donors to address plan priorities.
- Integrate HIV plan priorities into existing funding streams for broader prevention and health care efforts.
- Develop complementary and joint standards and service definitions for Ryan White care services and coordinate funding across the DC, Maryland, Virginia region.

Overview of HIV in Maryland

Impact of HIV/AIDS on Marylanders

Maryland has been significantly impacted by the HIV epidemic. During 2017 1,043 Maryland residents were newly diagnosed with HIV, and by the end of 2017, there were 32,892 people who were diagnosed and living with HIV in Maryland. New diagnoses have dropped consistently over the past several years, and 1,043 is the lowest number of HIV diagnoses in Maryland since 1986.

In 2017, Maryland had the fifth highest rate of estimated HIV diagnoses among adults and adolescents (17.0 cases per 100,000) among states and territories, 1.44 times higher than the national rate of 16.6 per 100,000. [5]

Geographic Distribution of HIV in Maryland

Maryland's HIV epidemic is concentrated in two adjoining MSAs with 92 percent of Maryland's people living with HIV residing in either the Baltimore-Columbia-Towson MSA (34 percent in Baltimore City and 20 percent in the surrounding counties) or one of the five Maryland counties in the DC MSA (38 percent). The number of new diagnoses of HIV across the state has decreased annually over the last ten years but there has been a greater decrease in the Baltimore-Columbia-Towson MSA (see Figure 3). This has resulted in a larger proportion of persons diagnosed in the Maryland portion of the DC MSA (51 percent) compared to the Baltimore-Columbia-Towson MSA (42 percent).

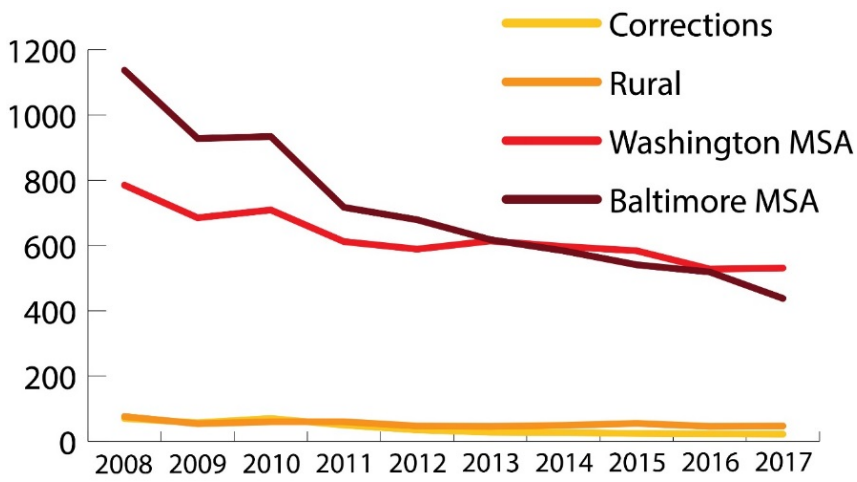

Figure 3: Trends in Maryland HIV Diagnoses by MSA, 2008-2017.

As shown in Figure 4, the 2017 rates of new HIV diagnoses by jurisdiction ranged from 0.0 to 44.7 per 100,000 and vary widely across the State. In 2017, Baltimore City and Prince George's County had the highest rates of new HIV diagnoses among adults and adolescents (44.7 per 100,000 and 41.9 per 100,000, respectively.) These two jurisdictions also had the highest number of new HIV diagnoses during 2017 (231 new HIV diagnoses in Baltimore City and 320 in Prince George's County). While Baltimore County and Montgomery County both had HIV diagnosis rates slightly below the statewide rate of 20.4 per 100,000 (15.9 and 18.6 per 100,000, respectively), these two counties had the third and fourth highest number of new HIV diagnosis during 2017 (112 in Baltimore County, 164 in Montgomery County).

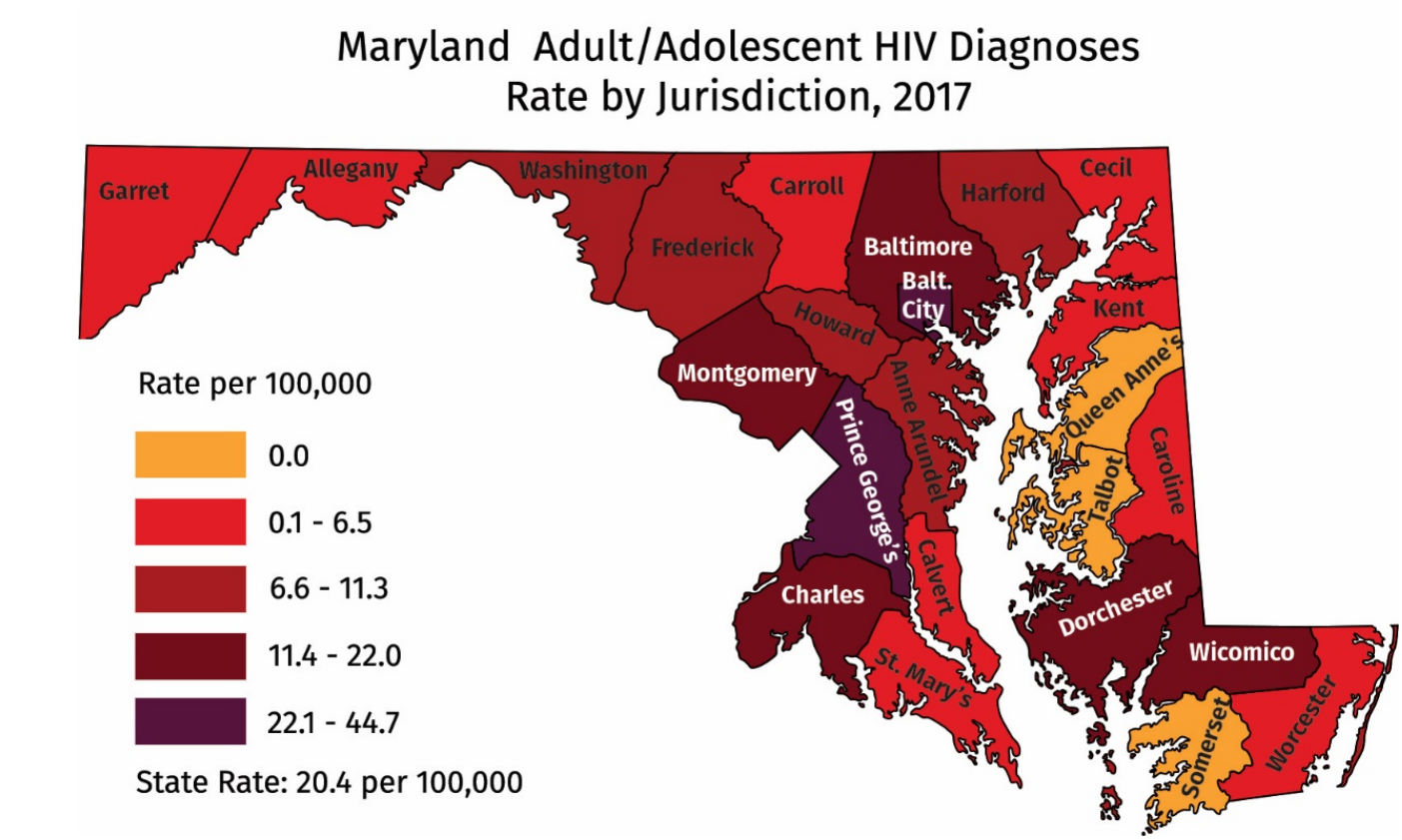

Figure 4: Maryland Adult/Adolescent HIV Diagnoses, Rate by Jurisdiction, 2017

Demographics Impacted by HIV in Maryland

Marylanders living with HIV are predominantly male (66 percent), non-Hispanic Black (74 percent), and middle-aged (53 percent of cases are 45-64 years old). In Maryland, HIV disproportionately impacts men. Rates (per 100,000) of persons living with HIV in Maryland at the end of 2017 were twice as high in males (688.6) as compared to females (334.6). As shown in Figure 5, new reported HIV diagnoses are also predominantly male. In 2017, 72 percent of new HIV diagnoses in Maryland were male at birth and 28% were female at birth. Transgender persons account for roughly one percent of all HIV cases in Maryland, however, this percentage is likely an underestimate due to incomplete reporting of gender identity and transgender status.

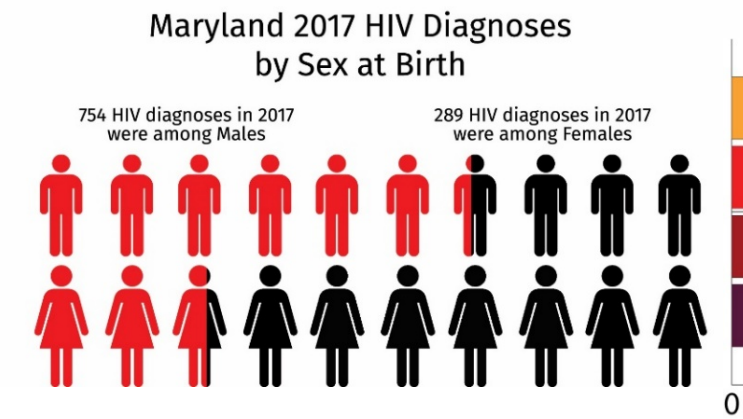

Figure 5: Maryland 2017 HIV Diagnoses by Sex at Birth

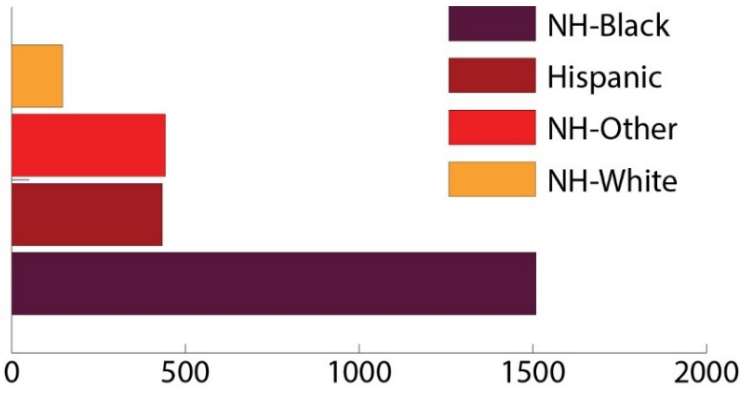

Figure 6: Rate of Adult/Adolescent Persons with HIV by Race/Ethnicity, 2017

HIV in Maryland also disproportionately impacts non-Hispanic Black persons, comprising 70-80% of reported HIV diagnoses annually since 1989. In 2017, despite representing only 29 percent of the state's population, 71 percent of new HIV diagnoses were among non-Hispanic Black people. Non-Hispanic Black people also have the second highest rate of adults and adolescents living with HIV (1,510 per 100,000) and the highest rate of new adult and adolescent diagnoses (49.0 per 100,000) in the State.

Figure 7 shows the breakdown of persons living with HIV in Maryland by age group. The majority of persons living with HIV are middle-aged (by the end of 2017, 53 percent of Marylanders living with HIV were 45-64 years of age). While only 16% of persons living with HIV in Maryland were 25-34 years old at the end of 2017, Figure 9 shows that Maryland's new HIV diagnoses have been increasingly concentrated among young adults. In 2017, the highest number and rate of new adult and adolescent HIV diagnoses were found among 25-34 year olds (361 new diagnoses, a rate of 43.1 per 100,000).

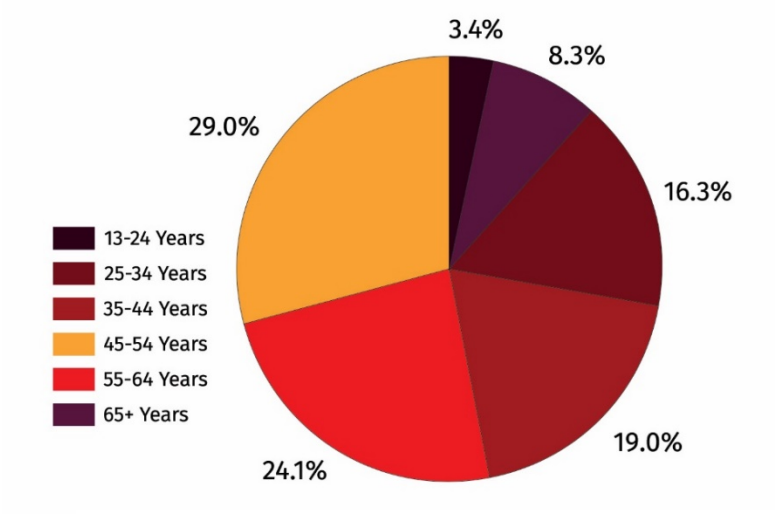

Figure 7: Adult/Adolescent PLWH in Maryland by Age Group, 2017

Mode of Exposure

In the 1990s, injection drug use was the predominant mode of exposure in Maryland. More recently, sexual transmission of HIV has significantly increased, representing over 90 percent of estimated mode of exposure for all newly reported adult and adolescent HIV diagnoses in 2017. Mode of exposure is estimated for cases without a reported exposure by risk redistribution using multiple imputations. As shown in Figure 8, the proportion of men who have sex with men (MSM) among new adult adolescent HIV diagnoses has steadily increased over the past decade, representing 54 percent of new HIV diagnoses in 2017. Heterosexual contact was the second most common mode of exposure (38 percent at the end of 2017). Rates of HIV infection are high for all MSM nationally and in Maryland, but are comparatively even higher for MSM of color. In 2017, the estimated rate of new HIV diagnosis among MSM was 284.3 per 100,000, more than 10 times the overall statewide rate of 20.4 per 100,000. Young Black MSM (ages 13-24) have the highest rate of new HIV diagnosis both nationally and in Maryland. In 2017, the estimated rate of new HIV diagnosis among young Black MSM in Maryland was 1,249.6 per 100,000, more than 60 times the overall statewide rate.

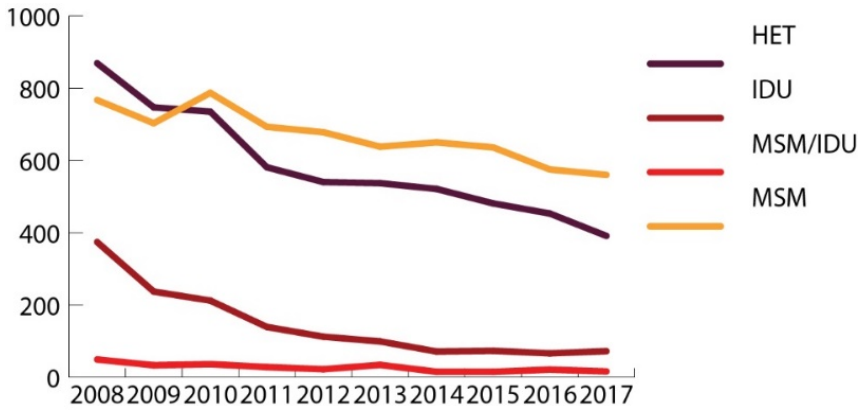

Figure 8: Maryland Adult/Adolescent HIV Diagnoses by Exposure Category

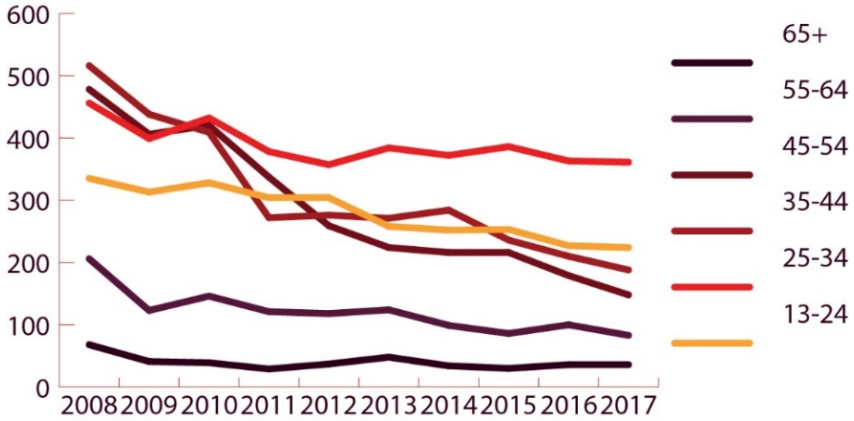

Figure 9: Adult/Adolescent New HIV Diagnoses by Age Group

Plan Framework - The Maryland HIV Expanded Continuum of Care

The Maryland Integrated HIV Plan framework corresponds to an expanded HIV continuum of care and describes strategies and offers community action items for five domains based on each step on the expanded continuum. Maryland has added to the original Continuum of Care, which has been described as the "HIV cascade". Because of the abundance of recent evidence for both personal and public health benefits of HIV viral suppression, the HIV continuum of care has become a primary organizing framework for representing engagement with HIV-related health care, measuring progress of HIV-related efforts, and focusing HIV prevention and care programming. Figure 10 above shows prevalence estimates for 2017 for stages of the original HIV Continuum of Care [7].

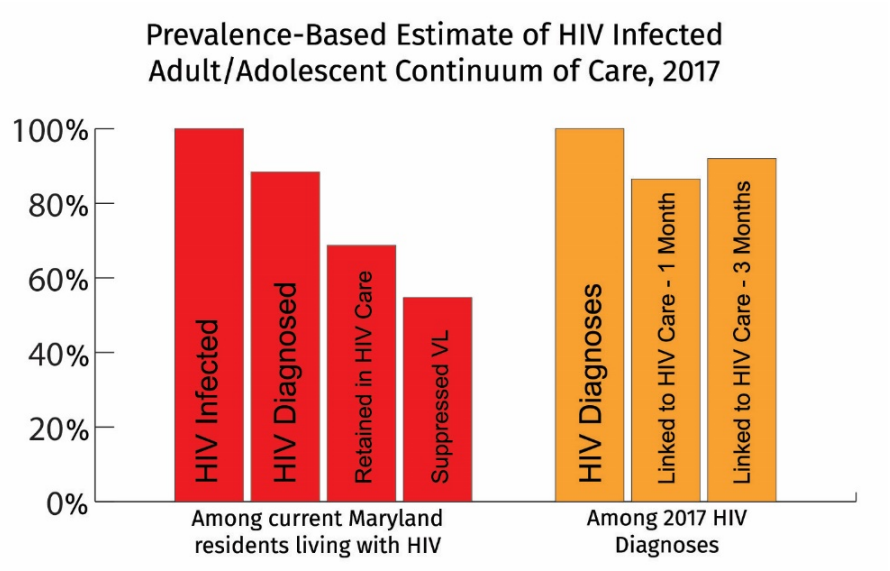

Figure 10: Maryland HIV Continuum of Care, CY 2017

The Expanded Continuum

Maryland has expanded upon the original HIV continuum of care. There is overwhelming data that early treatment for HIV and viral load suppression provide personal and public health benefit and effective treatment extends life and prevents transmission. However, because the existing HIV care continuum starts with undiagnosed infection, it is insufficient to encompass all needed HIV-related efforts. While treatment is a powerful strategy for preventing forward transmission, primary prevention strategies, such as new biomedical interventions (e.g., Pre Exposure Prophylaxis) and traditional interventions (e.g., condom distribution), remain relevant and necessary for maximum reduction in HIV transmission. Similarly, these efforts cannot be maximally successful in the presence of lack of awareness and stigma around HIV/AIDS. Below is an expanded continuum that supports focused prevention efforts for vulnerable populations and awareness among the general public (Figure 11). The steps of the expanded continuum have been further organized into five primary domains that constitute the basis for the framework of the Plan and the organization of its activities to achieve the Plan goals (Figure 12)

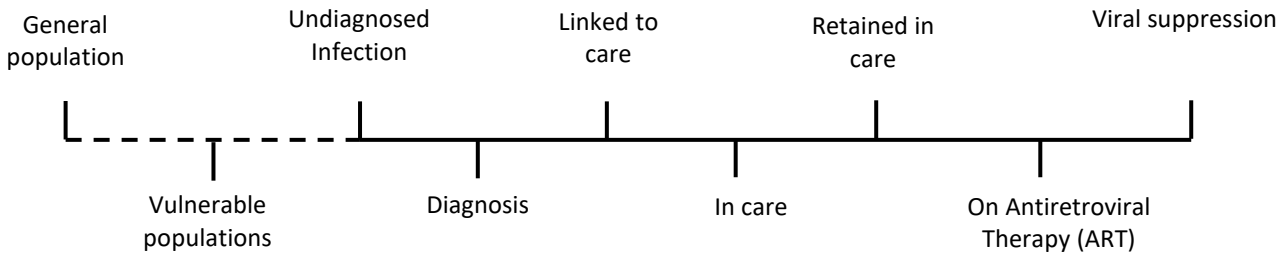

Figure 11: The Expanded HIV Continuum of Care

General Population	Vulnerable Populations	Full Diagnosis of HIV Infection	Care Engagement	Viral Suppression
Educate all Marylanders to heighten HIV awareness and reduce stigma.	***Protect*** individuals and communities at highest risk for HIV infection in Maryland.	***Diagnose*** all Marylanders living with HIV who are unaware of their HIV status.	***Engage*** all Marylanders living with HIV in high quality HIV care.	***Achieve*** viral suppression for all Marylanders living with HIV.

Figure 12: Maryland HIV Plan Framework

General Population

A general lack of HIV knowledge and awareness among the general population causes stigma and discrimination against people living with HIV as well as a lack of risk identification and fear of diagnosis. Marylanders need accurate information about HIV transmission, prevention, and testing, and how to support others without stigma and judgment. There must also be efforts to heighten HIV awareness and urgency among the general public.

In 2012 the Kaiser Family Foundation and The Washington Post partnered to conduct a survey of the American public's attitudes, awareness, and experiences related to HIV/AIDS. The survey found that among a representative random sample of 1,524 adults ages 18 and older living in the United States:

- 27 percent believed that HIV could be transmitted by drinking from the same glass as someone with HIV.
- 44 percent were uncomfortable having their food prepared by someone who is HIV-positive.
- 32 percent agreed with the statement "In general, it's people's own fault if they get AIDS." and 21 percent with the statement "I sometimes think that AIDS is a punishment for the decline in moral standards."
- There was a strong inverse relationship between stigma and knowledge (i.e. individuals who gave incorrect answers about how HIV is transmitted were more likely to also report being uncomfortable having their food prepared by someone who is HIV-positive).

Community mobilization, outreach, broader visibility, and general messaging are recommended strategies to increase awareness, urgency, and information available to the general population. MDH and its partners will continue to work to educate Marylanders about HIV.

Community Mobilization, Outreach, and Visibility

[Priority Level 1]

New outreach efforts and broadened community participation are required to re-energize community-based HIV prevention efforts. Over the past decade, smaller community-based HIV service organizations have closed across Maryland. Improvement in HIV treatments may have caused urgency around addressing HIV to diminish. Federally funded state and local programs de-emphasized broad outreach and mobilization in favor of small group and individual interventions, which have not reached adequate scale to create lasting population- and community-level reductions in risk behaviors. Renewed large-scale outreach and community mobilization efforts will once again highlight HIV prevention and treatment as an important topic for general audiences.

Comprehensive Sexual Education in Schools

From the period 2006-2010 to 2011-2013, there were significant declines in adolescent receipt of formal instruction in schools about sex and protection. Analysis of the National Survey of Family Growth indicated that formal sex education is associated with increased use of contraception and protection, and more careful partner selection. [8] A recent study indicated that while classroom teachers and school nurses are generally effective in conveying reproductive information to high school students, many teachers did not have the skills and experience needed to teach technical (e.g. condom use) and interpersonal skills (e.g. negotiation) needed to reduce high risk sexual behavior. [9]

The National HIV/AIDS Strategy specifically calls out comprehensive sexual education as a necessary structural intervention:

> Comprehensive sexual education for school-aged youth, an important example of a structural intervention, has not been brought to scale across the country, with only some jurisdictions providing fundamental and essential health and risk-behavior education to their students. To improve outcomes for youth along the HIV care continuum, young people must understand the benefits of early diagnosis as well as staying engaged in care and adhering to treatment. [4]

The Maryland Department of Education provides standards for curricula in two domains relevant to this Plan: Family Life and Human Sexuality: "Students will demonstrate the ability to use human development knowledge, social skills, and health enhancing strategies to promote positive relationships and healthy growth and development throughout the life cycle," and Disease Prevention and Control: "Students will demonstrate the ability to apply prevention and treatment knowledge, skills, and strategies to reduce susceptibility and manage disease." These standards provide for a base standard for sexual health education However, local school systems are required to have community representation reviewing and commenting on instructional material.

Health and sexual health education, like many curriculum decisions, is strongly influenced at the local level. In order to encourage formal, comprehensive sexual education in Maryland, HIV advocates must coordinate and partner with local youth health advocates, parent-teacher associations, and education advocates. MDH can provide local stakeholders and advocates with relevant data from the Youth Risk Behavior Survey on sexually transmitted infections in youth in order to provide justification for frank, science-based sexual health information for youth.

HIV De-criminalization

In 2014 the US Department of Justice urged states to re-evaluate their HIV-specific criminal statutes to determine whether they are 1) supported by scientific-evidence, and 2) the most appropriate means to meet the intended purpose of these laws—preventing transmission of HIV. Additionally, the 2020 National HIV/AIDS Strategy includes a recommendation that states ensure that any HIV-specific statutes are consistent with "current scientific knowledge of HIV transmission and support public health approaches to preventing and treating HIV."

There is no scientific evidence to support that HIV-specific criminal laws change behaviors; such laws are an ineffective means of curbing HIV transmission. Studies show that individuals who are aware of their HIV status are far less likely to transmit the virus than those who are unaware of their status. In fact, laws criminalizing transmission of HIV may encourage individuals to avoid diagnosis, because knowledge of a diagnosis may place them at risk of prosecution. National and statewide HIV prevention and education efforts are more effective strategies for reducing transmission of HIV.

In Maryland, the section of statute that criminalizes the transmission of HIV is Health-General Article, §18-601.1. The statute fails to indicate whether disclosure of status or the use of preventive measures, such as condoms, pre-exposure prophylaxis, and antiretroviral medications, are an affirmative defense to prosecution

under the law. Additionally, enforcement of Health-General Article §18-601.1 counteracts public health efforts to encourage HIV screening and ensure that every individual is aware of his or her HIV status.

Additionally, Health-General Article, §18-601.1 is not necessary to prosecute individuals who knowingly transmit HIV to others. Individuals whose actions are so egregious as to demonstrate a specific intent to transmit HIV to another can and have been prosecuted under Maryland's other existing criminal laws, including the reckless endangerment statute.

Community action items:

- Engage with state and local education and sexual health agencies and stakeholders.
- Provide local STD and HIV data to advocates, local planning bodies, and local decision-makers.
- Engage the judicial system and law enforcement regarding the negative impacts of criminalization.

Marketing and Messaging to the General Population

[Priority Level 2]

In 1988, the US Surgeon General, Dr. C. Everett Koop, distributed a brochure called *Understanding AIDS* to every household in the country. Dr. Koop's message said, in part, "Some of the issues involved in this brochure may not be things you are used to discussing openly. I can easily understand that. But now you must discuss them. We all must know about AIDS. Read this brochure and talk about it with those you love. Get involved." Around the same time, other high profile awareness efforts, such as the red ribbon campaign and public service announcements reached a broad audience across the US.

Today few mass communication products exist that are geared to a wide audience and focused on basic HIV education and anti-stigma messages. Most current campaigns focus on specific vulnerable populations. In order to ensure that all Marylanders have accurate HIV information and to reduce stigma, Maryland needs social marketing and educational campaigns that target the general population with basic HIV information and the promotion of support and acceptance of people living with HIV. In addition, messaging must be frequent to garner sustained attention and saturation.

Community action items:

- Engage in sustained marketing and communication efforts directed at general audience with a focus on basic education and stigma reduction.
- Develop indicators that measure HIV knowledge and reduced stigma and add those indicators to the Maryland Behavioral Risk Factor Surveillance System (BRFSS)

Vulnerable Populations

As shown in the Overview of HIV in Maryland, HIV does not impact all populations and communities equally. In Maryland, HIV disproportionately affects African Americans; gay, bisexual and same-gender-loving men, people who inject drugs, and transgender persons. Marylanders who are members of these populations or have high-risk social networks need access to risk reduction and supportive services to help them remain HIV-negative. In addition, members of vulnerable populations often live within environments that reinforce their vulnerability such as communities with a high prevalence of untreated HIV, poverty, racism, and gender inequality. Many may also suffer from limited health literacy and access to culturally competent health care.

Pre-exposure prophylaxis (PrEP) and non-occupational post-exposure prophylaxis (nPEP), syringe exchange, behavioral risk reduction, HIV-informed systems integration, and condom distribution and promotion are strategies to protect and decrease the rates of HIV infection in vulnerable populations.

Pre-exposure Prophylaxis (PrEP) and non-occupational Post-exposure Prophylaxis (nPEP)

[Priority Level 1]

PrEP is the use of HIV medications by HIV-negative persons to prevent infection in the event of exposure. Clinical studies and recent real-world implementation have shown PrEP to be effective in preventing HIV for persons who take the medication consistently.

High adherence to PrEP has been shown to be over 90 percent effective in preventing HIV infection among high-risk individuals. [10] Despite its proven effectiveness, uptake by patients and providers has been stunted due to lack of patient awareness and provider unfamiliarity and concerns about PrEP. [10] National data indicate that while PrEP prescriptions are increasing, a majority of prescriptions from retail pharmacies have been written for whites (74 percent) with only 10 percent to African Americans despite African Americans making up 44 percent of new diagnoses in the US. [11] It is essential that PrEP programs include strategies to improve uptake of PrEP targeted to all demographics, but especially to populations where uptake has been relatively low.

There is one medication combination approved for PrEP: Truvada. Patient assistance is available for Truvada through the drug manufacturer. However, the medication is expensive, copays and deductibles can be high, resulting in patients quickly exhausting available manufacturer assistance. Federal HIV funds currently cannot be used for medication or for insurance support related to PrEP.

Navigation to PrEP and to insurance that supports PrEP for patients and ongoing counseling and testing are important to improving PrEP adoption. To that end, both Baltimore and DC have used new CDC funds to establish PrEP support programs. MDH supports the expansion of PrEP navigation and support programs in other areas of Maryland not covered by the Baltimore and DC programs. For example, IMPACT is a 10-member collaborative of clinical and non-clinical organizations that promote PrEP services in Baltimore City, I'MPACT launched in October 2015 with a series of member work groups to foster HIV prevention and care, including: peer navigation, data to care, evaluation, providers, and social innovation and marketing. In addition to Baltimore City and County programs, MDH has supported new PrEP navigation and clinical services in ten counties throughout 2016 and 2017.

nPEP is an emergency medication that can stop HIV infection if taken within 72 hours of exposure or potential exposure to HIV. It is for HIV-negative people that had vaginal or anal sex without a condom (or a condom broke) with an HIV-positive person. nPEP can also help if an individual is exposed to HIV due to injection drug use. nPEP is recommended in cases of sexual assault, but otherwise nPEP is generally recommended only in the event of a known exposure. Because nPEP must be started within 72 hours of exposure, emergency rooms and urgent care centers are primary delivery points for this intervention. From a practical standpoint, it can be difficult to differentiate between individuals with a known exposure or those who are possibly at risk for exposure. Also, as is the case with PrEP, federal HIV funds may not be used to purchase nPEP or to support insurance access to the drug.

In addition to PrEP and nPEP, some similar biomedical strategies show promise. Recent clinical trial results showed moderate to high levels of protection through anti-viral medication delivered via a vaginal ring. Other PrEP drug options and delivery options, such as injectable and implantable methods are likely to emerge soon and should be pursued with vigor.

Community action items:

- Continue and expand PrEP navigation and support programs.
- Expand the number of providers offering or referring to PrEP.
- Work with payers and providers to conduct a PrEP "census" of the number of persons on PrEP, including those not involved with publicly supported programs.
- Work with payers to improve coverage of PrEP.
- Continue outreach to communities and persons that can benefit from PrEP.
- Develop Maryland nPEP protocols.
- Educate communities and providers on the access and appropriate use of nPEP.
- Estimate costs for providing nPEP medication and insurance support for nPEP use.

Syringe Services Programs

[Priority Level 2]

The purpose of syringe services programs (SSPs) is to reduce the harm caused by the injection of drugs, particularly the sharing of injection drug equipment. SSPs also create opportunities to disseminate Naloxone, a cost-effective and fast-acting medication that stops an overdose in progress, and to link injection drug users to medical, behavioral health, and substance abuse programs. SSP staff is likely to encounter overdoses in progress and can intervene. SSP staff can also train clients to spot overdoses in progress and to administer Naloxone.

Drug- and alcohol-related intoxication deaths in Maryland have increased from 649 in 2010 to 2,282 in 2017 The higher number of deaths are due to increased difficulty of acquiring opioids, which results in users switching to heroin, which is generally more readily available and less expensive. [12], [13] The number of heroin-related deaths more than quadrupled between 2010 (238) and 2017 (1,078). [12] In 2017, heroin use and related overdose deaths occurred in every jurisdiction in Maryland. Increased injection of heroin often results in new HIV and Hepatitis C (HCV) cases, which are transmitted by sharing used needles.

Reductions in HIV transmission among injection drug users is one of the success stories of HIV prevention, and is attributed in large part to sterile syringe access. [15] An examination of HIV prevalence among injection drug users worldwide found that on average, the prevalence of HIV infection among injection drug users increased by 5.9 percent per year in select cities without needle exchange programs, and decreased by 5.8 percent per year in select cities with needle exchange programs. [24]

In 1994, 65 percent of persons in Baltimore City who were diagnosed with HIV identified sharing injection drug equipment as their mode of exposure (62.7 percent identified only injection drug use, while 3.9 percent were men who reported both sharing injection drug equipment and having sex with other men). Baltimore City Health Department launched their Needle Exchange Project in 1994, and, in 2014, the proportion of new infections attributed to the sharing of injection drug equipment declined to about 8 percent (7 percent identified only injection drug use, while 1.6 percent were men who reported both sharing injection drug equipment and having sex with other men). [16] Baltimore City was the epicenter of the HIV epidemic in Maryland, so the statewide data reflect the city trends: in 1994, about 54 percent of new statewide HIV diagnoses were injection drug use only; in 2014, this proportion had fallen to about 4 percent. [16] Between May 1, 2013 and April 30, 2015, 29 percent of clients served by the Baltimore City Health Department Needle Exchange Project came from outside Baltimore City, demonstrating the increased demand for sterile syringes statewide. New statue authorizing SSPs throughout Maryland went into effect October 1, 2016. MDH has since promulgated SSP regulations (COMAR 10.52.01), seated an advisory committee, and developed an application process and funding mechanism for programs. Syringe services programs have begun in Baltimore County, Frederick County, Prince George's County and Washington County. MDH anticipates several more county programs in

the next several years. Continued local support for SSPs is essential to the success of these programs. Expanding the availability of syringe services programs to all Maryland jurisdictions with injection drug users will prevent a resurgence of injection drug use as a leading mode of HIV transmission in Maryland.

Fentanyl has been identified as the source for increased overdoses. Fentanyl is exponentially more potent than heroin, and is often combined with heroin. The presence of Fentanyl increases the risk of overdose death from injection drug use. Concurrently, Fentanyl and Fentanyl analogues have contaminated the drug supply. The number of deaths in Maryland caused by Fentanyl has increased from 39 in 2010 to 1,594 in 2017. [17] SSPs may be able reduce Fentanyl-related overdoses through the dissemination of Naloxone and can educate clients about the dangers of Fentanyl.

Community action items:

- Maintain and expand SSPs in the Eastern Shore, Southern, Western, and suburban DC regions of Maryland.
- Pursue funding opportunities at the local level for SSPs.
- Establish HIV and HCV outbreak response plans that include access to clean syringes.
- Monitor for injection drug use-related clusters and potential outbreaks.
- Develop community engagement to promote the acceptability of SSPs.

Behavioral Risk Reduction

[Priority Level 2]

In 2003, every CDC-funded community public health program addressing HIV had to include one of 30 CDC-approved evidence-based interventions or public health strategies in their portfolio. These interventions were targeted to specific populations. In 2011, CDC introduced a new framework for HIV prevention: High Impact Prevention (HIP). The new framework de-emphasized the previously-required interventions. The shift was partly based on new research on the effectiveness of treatment as prevention and findings that people living with HIV had better health outcomes if treatment started as soon as possible. In addition, programs struggled to implement the previously recommended evidence-based interventions at a scale that could affect population-level outcomes, particularly those that included several sessions with small groups.

Subsequent CDC funding announcements for state and local public health and community based programs redistributed funding geographically, with a greater focus on high morbidity jurisdictions, and programmatically, with greater focus on clinical interventions rather than behavioral risk reduction interventions for most populations. CDC still emphasized certain evidence-based interventions including those for people living with HIV, men who have sex with men, interventions that could reach large numbers of people, and single-session interventions, particularly those that could be implemented in clinic settings. Interventions for those at lower risk for HIV infection, HIV-negative populations, or that required several sessions were de-emphasized.

The transition to HIP caused many established behavioral risk reduction programs in Maryland to lose funding. CDC moved from a behavioral model to a medical containment model, which many established community based programs were not equipped to implement. Funding was instead awarded to clinical programs, most located in large hospital systems.

There are currently few funding opportunities in Maryland that support behavioral risk reduction programs, but behavioral risk reduction is still important in addressing HIV. Maryland programs must take advantage of opportunities to revive behavioral interventions, especially in combination with other interventions like PrEP and SSPs. Given the high concentration of HIV in transgender persons and Maryland's continuing significant level of new diagnoses in heterosexuals, particularly black women, providers should emphasize behavioral health interventions for these groups, in addition to men who have sex with men. Markers like STDs (especially

rectal infections), unstable housing, and involvement in sex work are strong indicators for intervention regardless of race/ethnicity, sexual orientation, or gender identity. Further, intervening with the sexual and social networks of at-risk individuals can expand the reach of behavioral interventions while maintaining a focus on those most vulnerable.

The Plan supports interventions beyond those identified by CDC if they are relevant and supported by local data. For example, MDH has supported the development and implementation of Rewriting Inner Scripts (RISE), an intervention targeting black gay, bisexual, and same-gender-loving men that was developed with input from community leaders and providers. RISE is a two-day, small group retreat that helps participants identify oppressive experiences in their lives, recognize similarities between oppression linked to racial and sexual identities, and recognize the impact of internalized oppression on self-perception and perceptions of other men. Through engaging in group activities and exercises on topics linked to race, sexuality, shame, and healing, the intervention fosters the development of coping and self-parenting skills. Maryland has created an adaptation for gay, bisexual, and same-gender-loving men of all races and ethnicities, and the program has been shared regionally with Virginia and DC. The program has strong formative research and initial impact data. Partnerships with academic institutions to provide further evaluation would help strengthen the concept and implementation. Scale for this sort of intervention is challenging, but pairing the program with other interventions and using additional markers of risk to target efforts will help maximize the impact.

The Baltimore City Health Department established the Baltimore in Conversation (BIC) initiative in November 2015. The goal of BIC is to allow the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community create user-generated content that will address social stigma around HIV prevention and treatment. BIC is based on traditional word of mouth social marketing technique and brings together community members to talk about their lived experiences with sexual health, sexual identity, race, and sexuality. Conversations are taped and shared via web and social media. The approach also includes working with community bloggers to develop social media content, mobile photo exhibitions featuring community members, and public events. BIC is being expanded to reach LGTBQ community members in Maryland beyond Baltimore City.

Additionally, informal community engagement, the development of safe and welcoming environments, and social support for young gay and same-gender-loving men, transgendered persons, and Black women provide opportunities behavioral risk intervention. MDH supports such efforts through community response teams for gay, bisexual, same-gender-loving men, and for transgender persons. Baltimore City Health Department has supported events for the house and ball community in addition to its BIC project described above.

Community action items:

- Increase community-based programming and safe, welcoming environments that speak to the lived experience of vulnerable populations, particularly transgender persons, young black gay, bisexual, and same-gender-loving men, and black women.
- Pursue foundation, industry, and corporate funding to support community-based programs.
- Develop the capacity of community based organizations to address HIV.

HIV-informed Systems Integration

[Priority Level 2]

HIV-focused education and intervention has often taken place separate from the broader context of people's lived experience. However, HIV prevention does not take place in a vacuum, and HIV prevention providers cannot respond to the full spectrum of the needs of vulnerable populations. The broader medical community, social services providers, employers, law enforcement, the faith community, and others must be responsive to the needs of vulnerable populations. Lack of responsive and welcoming services leaves vulnerable populations without sufficient access to services like housing support, jobs training, and adequate general health care.

Additionally, some services become available to these populations only once they become HIV-positive, which can create a perverse incentive for HIV acquisition. Factors associated with HIV such as unstable housing, depression and anxiety, and intimate partner violence are present for many before diagnosis and are significant contributors to risk and vulnerability. HIV funders, providers, and stakeholders should work to assure adequate access to services for members of vulnerable populations that remain HIV-negative.

MDH and partners will continue to address environmental impediments of vulnerable populations to accessing HIV services, including transitional housing among the housing insecure; and legal, financial, transportation, social services, education, and job development services. Specialized services and resources for youth will continue to receive special attention. Improved services for non-English speaking populations and attention to welcoming environments for gay and bisexual men, transgender persons (particularly those of color), and Black women and men will increase access and address mistrust of government and health care systems.

Stigma and mistrust of health care systems are major reoccurring themes expressed by stakeholders, and they increase barriers to testing, linkage, and care engagement. It is critical that providers be trained on how to increase patient trust, improve communication, avoid stereotypes, and increase a patient-centered holistic approach to care. Patients need training on how to be their own advocates and health literacy training to improve their ability to navigate the health care system. Finally, general health education is needed to help individuals understand the importance of getting tested and engaged in care.

Community action items:

- Ensure that broader social, clinical, and advocacy organizations are welcoming to transgender persons; Black women; and gay, bisexual, and same-gender-loving men.
- Integrate HIV awareness and HIV-specific services into broader social and clinical services. Increase providers' awareness of people at risk for or living with HIV within existing client populations.

Condom Distribution and Promotion

[Priority Level 3]

Because of persistent levels of condom-less sex and only partial uptake of condom use among vulnerable populations, HIV prevention efforts often focus on other strategies like PrEP. However, condoms continue to be a low-cost, effective strategy to prevent HIV, other STDs, and unplanned pregnancy. Access to and use of condoms depends on availability, but also on reducing stigma associated with condom use. High profile branding and awareness campaigns can reduce stigma and increase condom use.

In 2011, CDC introduced a new funding category for condom distribution and identified condom distribution as a structural intervention to prevent HIV. Structural interventions are designed to implement or change laws, policies, physical structures, social or organizational structures, or standard operating procedures to affect environmental or societal change. [24]

The CDC defines three As of condom distribution programs: **available**, **accessible**, and **acceptable**.

Available: Ensure that condoms are available in the places where members of the prioritized groups may frequent, such as pharmacies and condom dispensing machines. Also ensure that outreach workers who interact with these prioritized groups regularly and consistently have condoms available to distribute.

Accessible: Ensure unrestricted access by providing free condoms in multiple convenient locations.

Acceptable: Ensure community support for the use of condoms by producing products that are popular and supported by opinion leaders and public figures.

Additionally, outcomes for all condom distribution programs should include:

1. Increased condom use;
2. Condom acquisition/carrying;
3. Delayed sexual initiation/abstinence (for youth);
4. Decreased number of sex partners; and
5. Reduced STD incidence.

Full Diagnosis of HIV Infection

Marylanders living with HIV cannot be linked to medical care or take steps to prevent the transmission of HIV to others if they are unaware of their status. Early diagnosis and engagement in HIV medical care results in improved health outcomes for people living with HIV and decreased rates of HIV transmission. People living with HIV who are unaware of their status need access to culturally competent HIV testing services, ideally integrated into ongoing primary health care. Reaching all undiagnosed people living with HIV will also require targeted HIV testing, HIV/STD partner services, and outreach activities for those not engaged in regular health care.

Some undiagnosed people living with HIV may be unaware of their risk due to lack of information about how HIV is transmitted or myths about which populations or communities are impacted by HIV. Other people living with HIV may be aware of their risk but unwilling to access HIV testing due to stigma or fear. Lack of knowledge about the availability and success of HIV treatment are also common barriers to HIV testing. Many clinical providers do not routinely address sexual health needs of patients and do not routinely offer HIV testing. People at highest risk for undiagnosed HIV infection may not be engaged in ongoing primary health care, and would therefore not be reached by routine testing programs.

- The most recent CDC estimate of the number of people living with undiagnosed HIV infection is 14.5 percent for the United States. Using the CDC CD4 depletion model on Maryland surveillance data, the estimated number of people living with undiagnosed HIV infection in Maryland is 11.6 percent in 2016. [18] Using this estimate, there are at least 4,000 people living with HIV in Maryland with undiagnosed HIV infection.
- In 2017, 27.5 percent of persons newly diagnosed with HIV in Maryland were diagnosed late in their HIV infection (defined as being diagnosed with AIDS within 12 months of the initial HIV diagnosis).
- While CDC recommends that all adults ages 13-64 to have at least one HIV test in their lifetime, only 44.6 percent of Maryland adults who participated in Maryland's BRFSS during 2014 responded "yes" when asked "Have you ever been tested for HIV?". [19]
- Since 2007, Maryland law has required providers to offer an HIV test to all pregnant women during their first trimester. However, in 2015 only 72 percent of pregnant women interviewed as part of the Maryland Pregnancy Risk Assessment Monitoring System (PRAMS) reported that HIV testing was discussed during prenatal visits and only 64 percent reported getting an HIV test. [20] As of 2016, Maryland regulations also require providers to offer an HIV test to all pregnant women during the third trimester of pregnancy.
- In 2017, Maryland had an estimated 164 births in HIV positive women, with 1 perinatal transmission. The rate of HIV transmission in Maryland was 1.4 per 100,000 live births. The most recent national estimated incidence of perinatally acquired HIV infection was 1.8 out of 100,000 live births.

Routine Testing

[Priority Level 1]

In 2006, CDC recommended that all people ages 13 – 64 get tested for HIV, and that HIV testing be a part of routine medical care. However, routine, opt-out testing for HIV has not yet been integrated into many medical care settings, partly due to requirements for consent. By 2015 those barriers have largely been removed, suggesting that stigma among medical providers is a greater barrier to widespread HIV testing in medical care.

The Frontlines of Communities in the United States (FOCUS) project, established by Gilead Sciences (a biopharmaceutical company that manufactures HIV and HCV medication), partners with health care providers, government agencies, and community organizations to change to expand routine testing and to improve HIV and HVC screening and linkage to care. Originally implemented in Baltimore, the project is now expanding testing in Prince George's County. FOCUS and state and local public health programs should work together to identify priority targets to increase routine testing.

MDH and the Baltimore City Health Department will continue to promote routine HIV testing to providers. Baltimore City's Protect Baltimore project has successfully increased adoption of HIV testing among providers and MDH is preparing replication efforts for areas beyond Baltimore. Protect Baltimore is now in its fifth year and targets private medical practices and health centers in areas defined by the Baltimore City Health Department as high transmission areas for HIV. Participating providers report that the program is highly valued. In addition to working with providers, MDH, Baltimore City, and other stakeholders should encourage payers to adopt routine HIV testing as a key quality measure and to consider enhanced reimbursement for HIV testing, particularly testing that results in new diagnoses of HIV.

Because the requirement for providers to perform opt-out HIV testing of pregnant women in the third trimester in addition to the first trimester is relatively new, MDH, Baltimore City, and other stakeholders must engage in promotional and educational efforts to ensure that providers, payers, and pregnant women are aware of and comply with the requirement.

Community action items:

- Establish routine HIV testing programs in large hospital and care systems, particularly emergency departments and outpatient clinic systems.
- Work with payers to incentivize routine HIV testing.
- Continue and expand programs like Protect Baltimore.
- Recruit community members to interact with clinical providers to encourage routine testing.
  Work with provider training programs to reduce providers' stigma around HIV and HIV testing.

Partner Services

[Priority Level 2]

Partner services is an activity in which specially trained individuals, known as disease intervention specialists, offer assistance to persons newly diagnosed with HIV or other bacterial STDs in notifying their sex and needle-sharing partners of their exposure. Disease intervention specialists interview newly diagnosed individuals to identify their partners within a specific timeframe. This information is used to locate and confidentially notify partners of their exposure so that they may be linked to medical care for testing and treatment. The partner services program is voluntary, and disease intervention specialists uphold the strictest standards to ensure patient confidentiality. Disease intervention specialists also counsel patients on managing their infection and reducing risk of complications or transmitting the infection to others and can refer patients to additional resources as needed. MDH employs or funds local health departments to employ five disease intervention specialists who serve the residents of Maryland's 19 lower morbidity counties. Baltimore City and the five

remaining higher morbidity counties employ their own disease intervention specialist and front line supervisors to provide partner services.

Partner Services Outcomes for Newly Diagnosed HIV Cases, Maryland State 2014 – 2017

	2014		2015		2016		2017		Total	
	n	%	n	%	n	%	n	%	n	%
New HIV Cases Interviewed	765	--	817	--	894	--	838	--	3314	--
Interviews with ≥1 Partner Named	326	43%	357	44%	372	42%	317	38%	1372	41%
Interviews with No Partners Named	439	57%	460	56%	522	58%	521	62%	1942	59%
Partner Index[1]	0.71	--	0.63	--	0.58	--	0.49	--	0.60	--
New HIV Cases Interviewed and Linked to Medical Care[2]	619	81%	707	87%	663	74%	631	75%	2620	79%
Partners Initiated[3]	542	--	510	--	516	--	413	--	1981	--
Partners Previously Diagnosed with HIV	151	28%	134	26%	160	31%	97	23%	542	27%
Partners Tested for HIV (Not Previous Positives)	213	54%	215	57%	213	60%	198	63%	839	58%
Partners Newly Diagnosed with HIV	49	23%	57	27%	39	18%	51	26%	196	23%
Partners Newly Diagnosed with HIV and Linked to Medical Care	43	88%	42	74%	32	82%	45	88%	162	83%

[1] Total number of partners named divided by total number of HIV cases interviewed
[2] Linked to HIV medical care at any point. Includes persons living with HIV who were already in medical care and local health department staff verified most recent appointment attendance, and those cases where the local health department staff facilitated HIV care engagement and verified appointment attendance.
[3] Includes only those partners named for whom sufficient locating information was provided by the original patient to initiate a field investigation.

Table 1: Partner Services Outcomes for Newly Diagnosed HIV Cases, 2014 - 2017

Ensuring ongoing training of disease intervention specialists is crucial to the success of partner services programs. Maryland will conduct a training assessment and then seek innovative training opportunities build capacity and provide technical assistance to local health department disease intervention specialists.

Maryland will work to increase investment in partner services programs and heighten provider and community awareness of the important role partner services plays in the HIV care continuum. MDH will develop STI Provider Toolkits, which will include information on reporting requirements, how to talk to patients about notifying partners, and how to promote disclosure of status to partners. MDH and local health departments will be promoted using both traditional and social media messaging.

Community action items:

- Educate providers and communities about partner services to increase receptiveness to the program.
- Provide increased training and support for disease intervention specialists, partner services programs, and the community.

Prioritized Testing

[Priority Level 3]

Individuals with the highest risk of HIV are often the least likely to engage in medical care, and thus may not reached by routine testing. In order to ensure that these individuals have access to testing, MDH must develop grass roots capacity in vulnerable communities to provide prioritized HIV testing since few community based organizations in Maryland currently provide HIV testing outside of Baltimore City. Implementing prioritized testing requires review of each community's epidemiological, resource, and cultural needs. Focusing on a population's access to health care system and environmental factors that increase vulnerability rather than risk behaviors, helps reduce stigma associated with HIV screening. Offering testing as part of a free, comprehensive health check that includes other diagnostics such as blood pressure and glucose levels and offering these services in environments where community members feel welcome further reduces barriers to testing and creates important opportunities to reach otherwise underserved individuals.

A particularly successful example of focused, prioritized testing is the Annual Free Ball sponsored by the Baltimore City Health Department. This annual event is for members of the LGBTQ communities in DC, Baltimore, and other parts of Maryland and is attended by over 600 people. As part of the event, over 100 people are given free HIV tests. This event identifies the highest number of new HIV diagnoses among those tested: between four and seven percent per year. In addition to testing provided at the Annual Free Ball, the Baltimore City Health Department funds over 50,000 additional targeted HIV tests each year through community outreach and at other regional events.

Community Action Items:

- Identify vulnerable populations with high-barriers to health care access.
- Develop targeted testing opportunities that are culturally appropriate and accessible.
- Identify community based organizations with existing access to vulnerable populations and leverage that access to build HIV testing programs.

Leveraging system opportunities: Health Care Payers

Response to HIV has often focused on specialized service delivery, but the broader health care system also plays an important role in HIV prevention and treatment. Most people are diagnosed with HIV by medical providers outside of HIV-specific, publicly funded efforts. While Ryan White HIV care services and MADAP serve many people living with HIV, those services reach only a minority of the total population of people living with HIV.

The Affordable Care Act, particularly the expansion of Medicaid, has provided new resources, opportunities, and challenges for the care and treatment for persons living with HIV.

The MDH Infectious Disease Prevention and Health Services Bureau will work with payers (Medicaid and private insurers) to analyze data in order to:

1. Address each stage of the HIV continuum of care within payer systems;
2. Assess HIV testing among all participants, particularly the frequency of first and third trimester prenatal HIV testing; and
3. Assure complete data to assess need for linkage to care outreach.

From these analyses, MDH can work with payers to develop quality initiatives and measures related to testing, care engagement, and viral suppression. The MDH HIV Program and Medicaid have begun a comprehensive data analysis project in collaboration with the Centers for Medicare and Medicaid Services, HRSA, and CDC. The MDH HIV Program has also begun similar conversations with private insurers.

MDH will also promote coordination between services paid for by insurance and Ryan White supported services.

Ryan White services have sometimes functioned as a stand-alone system, but with more and more people living with HIV accessing health insurance, the need for coordination between payers is greater than ever. If a service is not covered or there are limits to coverage through insurance, Ryan White can function as a supplemental payer. For example, if insurance will cover only 12 mental health visits, Ryan White funds can be used to support visit 13 and beyond. Further, while services may have the same label (e.g., case management), they may be substantially different in their definitions, in which case Ryan White is an appropriate payer. Maximizing Ryan White services to support persons with insurance in this manner is much more complicated than a simple yes or no eligibility determination. Ryan White administrators must provide stronger guidance on the use of Ryan White to complement reimbursable services.

Care Engagement

Early and sustained engagement in HIV medical care results in both improved health outcomes for people living with HIV and decreased HIV transmission. Care coordination is an integral part of successful care engagement. The Affordable Care Act and Medicaid expansion means many people living with HIV have insurance for the first time and may need education and coaching on how to best use coverage. Regardless of insurance coverage, there may be an insufficient number of accessible HIV care providers. Lack of coordination between organizations, providers, and funders makes qualifying for assistance challenging, which also contributes to lapses in care.

- In 2017, 86.5 percent of Marylanders with diagnosed HIV infection were linked to HIV medical care within 30 days of their HIV diagnosis.
- In 2017, 77.7 percent of Marylanders with diagnosed HIV infection were engaged in HIV medical care.

Linkage to Care and Data to Care

[Priority Level 1]

For several years, Maryland HIV testing and partner services programs have focused on linkage to care and have seen substantial improvements, particularly among publicly funded providers. Broader population-level linkage to care efforts should be implemented as well.

Data to care is a public health strategy that uses HIV surveillance data to identify HIV-diagnosed individuals not in care, link them to care, and to support engagement in HIV care. Since 2013, MDH has partnered with local health departments and HIV care providers in jurisdictions heavily impacted by HIV to implement data to care activities.

Several data to care projects have been initiated in the past few years:

- The MDH/CDC HIV Prevention demonstration project to implement data to care activities in the four Maryland jurisdictions with the highest HIV prevalence (Anne Arundel, Baltimore, Montgomery, and Prince George's) (2013-2015);
- Partnerships for Care, an initiative jointly funded by CDC and the HRSA Bureau of Primary Health Care, includes data to care activities. The initiative is a collaboration of MDH, local health departments, and federally-qualified health centers (FQHCs) in Baltimore City, Montgomery, and Prince George's counties; and

- The Baltimore City Health Department and MDH are implementing data to care under two CDC HIV prevention grants serving MSM and transgender clients, Project Pride (15-1506) and Project Thrive (15-1509).

Data to care is dependent on laboratory surveillance data. MDH receives approximately 15,000 lab reports every month, about 94% of which are electronic. These reports are matched against existing HIV cases (approximately 75,000). New cases are investigated, partner services are initiated for recently diagnosed cases, and persons that are out of care are identified for linkage or re-engagement in care.

Identifying cases:

- Using only confirmed HIV-positive cases in the HIV Surveillance data, cases are identified in the following way for a semi-monthly linkage to care list:

– **Never in Care** (no HIV viral load or CD4 lab results have been reported since initial HIV diagnosis)

– **Out of Care** (a history of HIV viral load or CD4 lab results, but none reported in the past 13 months)

The information reported to HIV Surveillance may not be complete or timely enough to identify people living with HIV who have fallen out of HIV care during the previous year. Based on initial data to care re-engagement work in 2014 and 2015, 59 percent of cases shared with local health departments were closed as already in care (either through provider/client outreach or because a new CD4 or VL was reported to Enhanced HIV/AIDS Registry System (eHARS) before local health department investigation).

Time Since Last Reported CD4 or HIV Viral Load	Maryland People Living with HIV	
	#	%
Within the past 13 months	21,334	71.5%
13 month - 2 years ago	2,899	9.7%
2 - 3 years ago	1,544	5.2%
3+ years ago	2,889	9.7%
Never (no CD4/Viral Load reported since HIV diagnosis)*	1,166	3.9%

* Includes 133 people living with HIV diagnosed within the past 12 months
Using June 30, 2016 eHARS data freeze.
Most recent address in eHARS indicates Maryland residency

Table 2: Time Since Last Reported CD4 of HIV Viral Load

MDH has also worked with the Chesapeake Regional Information System for our Patients (CRISP) to receive reports when persons with HIV who have no evidence of HIV-related medical care engage in other care systems, particularly emergency departments and urgent care centers. These efforts may identify care systems where further HIV care re-engagement can occur. Additionally, MDH and CRISP are exploring the possibility of developing a system to alert providers that patients need to be re-engaged in care.

In 2015, the following changes were made to Maryland's HIV surveillance data to improve accuracy, completeness, and timeliness in order to maximize data to care efforts:

- **Accurint Search** – Matched Maryland HIV cases to a national database (Lexis-Nexis) to identify persons who had moved out of state and/or died out of state.
- **"Black Box" Project** – Matched Maryland, DC, and Virginia HIV Surveillance databases and identified 11,300 Maryland cases in the DC data and 4,500 Maryland cases in the Virginia data, only half of which were previously known to be in more than one system.
- **Regional Data Sharing** – Established routine sharing of lab results between Maryland, DC, and Virginia, which allows capture of lab results from visits to out of state providers.

"Red Carpet" linkage programs provide linkage and navigation services immediately after diagnosis. Rapid entry into HIV-related medical care requires on-call linkage specialists that work with providers that diagnose HIV and sufficient availability of HIV medical care providers.

Community action items:

- Expand and improve data sources to inform data to care efforts.
- Expand provider-initiated and provider-public health partnerships to refine data for to facilitate care re-engagement.
- Implement “red carpet” linkage programs that provide navigation to HIV-related medical care within five days of diagnosis.

Expanded HIV Provider Network

[Priority Level 2]

Because of the Affordable Care Act, people living with HIV have access to an expanded provider network and providers may be seeing HIV positive individuals who had previously been dependent on the Ryan White system for care. MDH will work to improve its Ryan White system of care to ensure that its infrastructure supports additional providers. MDH will also work to ensure that existing Ryan White services are complementary to new services and opportunities available through the Affordable Care Act. An expanded provider network is especially important outside of Baltimore and DC. Currently, MDH supports rotating clinics in Western Maryland and the Eastern Shore to address HIV. These areas do not have sufficient infectious disease expertise in HIV, and primary care providers do not generally provide HIV care services.

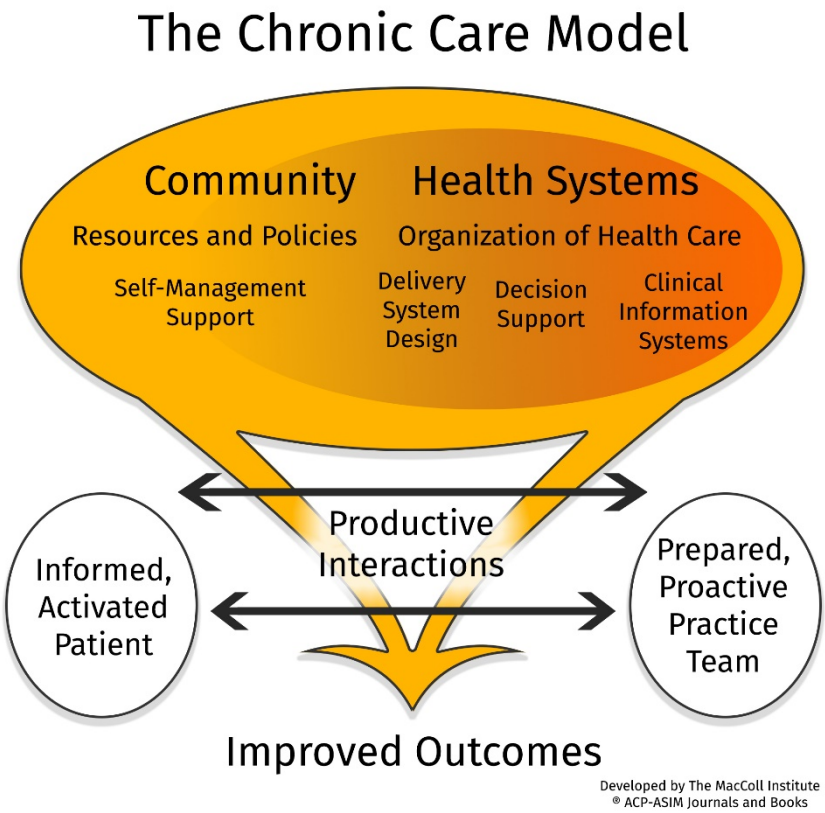

Figure 13: Maryland HIV Plan Framework

Because HIV is now managed as a chronic infection, expansion to primary care providers for routine HIV care can provide readily accessible options for care engagement. FQHCs, in particular, could develop greater HIV capacity. Some have a longstanding tradition of HIV-related medical care, primarily supported by Ryan White funds, while others could add HIV-related care to services offered. For FQHCs that have HIV care programs, existing infectious disease specialty care services could be expanded to include primary care services. MDH has engaged with FQHCs in Baltimore and suburban DC to incorporate HIV care into primary care practice.

Reducing burden related to receiving Ryan White funding could also encourage more providers to offer HIV care services. If Ryan White funding operated via fee-for-service and outcomes-based reimbursement models, rather than salary support, more providers might be more willing to receive Ryan White funding for care.

Community actions items:

- Explore capacity, implementation, and payer systems for telehealth delivery of HIV-related health services.
- Engage additional FQHCs to expand primary care capacity to provide HIV-related medical care.

- Work with provider organizations and academic institutions to increase HIV competence among primary care providers, as well as specialists outside of infectious disease, and other allied health professionals.

HIV-informed Systems Integration

[Priority Level 2]

Stigma associated with HIV and AIDS, especially at the beginning of the epidemic, led to the development of parallel health care and social services systems. During the early days of the epidemic, when less was known about transmission and there was fear around interactions, there was a need to develop specific AIDS Service Organizations. Because separate systems were originally created to address HIV and AIDS, many larger health care and social service delivery systems are not HIV-informed and are therefore unequipped to respond to the needs of people living with HIV. In particular, people living with HIV are now surviving into their 50s, 60s, and 70s and senior services (gerontology, and senior housing and assistance) are not adequately prepared to address the needs of people living with HIV. In 2015, Ryan White Part A services were provided primarily to people over the age of 45 in the Baltimore Eligible Metropolitan Area.

Successful care coordination in broader systems requires identifying the needs of and providing stigma free care to all populations served. Vulnerable populations need sensitive delivery of services that allows for empowered health care decisions. This is accomplished not only in patient-provider interactions, but also through appropriate data collection and reporting systems, practice management, and delivery-system design.

In needs assessment and discussion, the following services were highlighted repeatedly: housing, transportation, dental, mental health, and substance abuse services, and support for medical and laboratory co-pays. For each of these categories, action items include the exploration of potential leverage points for integrating HIV-specific needs in larger systems. For example, in housing, by integrating Housing Opportunities for People Living with AIDS programs in existing homelessness, poverty, and workforce development programs, screening for HIV infection and HIV-informed delivery of services can be increased.

Peer Support Networks

[Priority Level 2]

The purpose of peer support networks is to enable individuals with similar experiences to support one another to effectively deal with trauma or negative experiences. Additionally, peer support networks provide opportunities to collect feedback on delivery of care to improve future experiences. People living with HIV who work with health care practitioners as part of peer support networks often feel heard in a way that individual patient/provider interactions cannot produce.

Culturally Responsive and Flexible Workforce

[Priority Level 2]

Maryland has a diverse population and a significant population in which a language other than English is spoken at home. LGBTQ people live all across the state. Maryland's diverse population deserves a welcoming environment no matter where they seek health care services. This Plan promotes cultural responsiveness and cultural competence to ensure to that the varied needs of all populations served are addressed.

Cultural responsiveness refers to health care services that are respectful of, and relevant to, the health beliefs, health practices, culture, and linguistic needs of diverse populations and communities. Cultural responsiveness requires knowledge and capacity specific to diverse populations at different levels of intervention: systemic, organizational, professional, and individual.

Cultural competence is cultural responsiveness at the organizational level and requires that organizations have a defined set of values and principles and demonstrate behaviors, attitudes, policies and structures that enable them to work effectively across cultures.

Culturally competent organizations:

1) Value diversity;
2) Conduct self-assessment;
3) Manage the dynamics of difference;
4) Acquire and institutionalize cultural knowledge; and
5) Adapt to diversity and the cultural contexts of the communities they serve.

Organizations should incorporate the above in all aspects of policy making, administration, practice, and service delivery. Cultural competence is a developmental process that evolves over an extended period and should include feedback from stakeholders and clients. [22]

Cultural flexibility is defined as the propensity to value and ability to move across different cultural and social peer groups and environments. This Plan encourages providers to demonstrate cultural flexibility in care settings.

Viral Suppression

Viral suppression extends the life and quality of life for people living with HIV, and it protects their partners and communities by making it extremely unlikely for them to pass HIV to others. Marylanders with HIV need support and services to ensure access and adherence to medication which will help achieve and maintain viral suppression. Not all people living with HIV who are engaged in care achieve viral suppression. Contributing factors that keep people from achieving viral suppression include lack of resources to cover medication and insurance costs, health literacy regarding HIV treatment and health insurance, regular viral load monitoring, and coordination between infectious disease providers and primary care providers.

- In 2017, 61.4% of Marylanders with diagnosed HIV infection achieved viral suppression.
- In 2015, 77.0% of Marylanders with HIV engaged in medical care achieved viral suppression.

Medication Adherence

[Priority Level 1]

Medication adherence is emphasized as part of case management and medical care for many health issues. Pharmacies, many of which have substantial programs for medication adherence already, could expand existing engagement with clients and could assess progress through data sharing.

One way to foster medication adherence would be to broaden the concept of linkage to care to move beyond the medical appointment. The current model of linkage to care comprises diagnosis, lab work, and attending the first medical appointment. However, linkage to pharmaceutical therapies in the first 30 days of medications being prescribed is a marker for eventual treatment success. For individuals who have been in treatment before, one in four who do not pick-up their prescriptions within the first 30 days will not continue their therapy. For individuals new to treatment, this number increases to four out of five. These numbers suggest that all navigation programs should include picking up prescriptions within the first 30 days as part of linkage to care.

Promoting adherence tools such as the one featured above can also help patients to stay on their prescribed courses of treatment beyond the first 30 days.

Community action items:

- Engage pharmacy and payer systems to encourage best and innovative practices for HIV medication adherence.
- Promote client tools and engagement strategies for care providers.
- Link client data and viral suppression data for quality improvement feedback to providers and payers.

Access to Medications

[Priority Level 2]

Maryland invests substantial resources to assure access to medications through MADAP. MADAP helps to pay for 173 selected, prescribed drugs for individuals who are do not meet the income eligibility qualification for Medical Assistance who are uninsured. To qualify for MADAP, an individual's income must be between $12,553 and $54,150 a year. Income for couples must be between $16,897 and $72,850 a year. MADAP also offers assistance in paying health insurance premiums for individuals who are HIV-infected. Individuals must be responsible for paying 50% or more of the monthly health insurance premiums out of pocket.

Traditionally, MADAP has paid for medications for HIV positive individuals. However, with the advent of the Affordable Care Act, MADAP has evolved into an insurance payment program. Approximately 85% of MADAP clients have some sort of insurance coverage, either through their employer, the health insurance marketplace established by the Affordable Care Act, or another qualifying entity. As a result, expenses associated with the program are on a downward trajectory. While the number of MADAP clients paying premiums has remained fairly steady, premium expenditures have decreased. MADAP co-pays and deductibles expenditures have fluctuated as has the number of clients paying them. MADAP drug purchase clients and expenditures have decreased.

Community Action Items:

- Assess MADAP systems to streamline and simplify application processes.
- Analyze insurance plans for coverage of HIV-related services and medications.
- Educate health insurance navigators on HIV and insurance coverage.

Measuring Progress and Using Data to Improve Outcomes

MDH monitors Maryland's progress on National HIV/AIDS Strategy indicators which address: reducing new HIV infections, increasing access to care, improving health outcomes, and reducing HIV-related health disparities. Progress toward meeting 2020 goals is measured relative to the indicators at baseline in 2010. Maryland has met its goals for 2020 on the following: reducing the number of new HIV diagnoses, increasing the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis, reducing the death rate among persons with diagnosed HIV infection, and reducing disparities in the rate of new diagnoses. Maryland has made progress on, but not yet met 2020 goals for increasing the percentage of persons with diagnosed HIV infection who are virally suppressed, increasing the percentage of youth with diagnosed HIV infection who are virally suppressed, and increasing the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed. Maryland has not made sufficient progress toward 2020 goals for: increasing the percentage of persons with diagnosed HIV infection who are retained in

HIV medical care, reducing disparities in the rate of new diagnoses among gay and bisexual men, and reduce disparities in the rate of new diagnoses among young black gay and bisexual men.

Refining Plans

Maryland will continue to monitor its progress toward meeting both Plan goals and improving on National HIV/AIDS Strategy indicators with its stakeholders, and to revise its priority HIV plans and strategies as needed to best address HIV in Maryland. MDH officials will continue to meet on a regular basis with the Baltimore City Health Department and the various planning bodies (Baltimore HIV Services Planning Council, Baltimore HIV Commission, and the Maryland HIV Planning Group) to refine the common framework adopted in this document in order to ensure consistency and an approach to the work that emphasizes a joint mission. These meetings will allow MDH, health providers, community members, and other interested stakeholders from all regions of Maryland to jointly assess, revise, and refine the Plan and its activities.

Table 3 – Maryland Progress Table for Current Residents as of 6/30/2018

NHAS Indicators		Maryland**								
		2010 Baseline	2011	2012	2013	2014	2015	2016	2017	2020 Goal
Reducing New HIV Infections										
Increase the percentage of people living with HIV who know their serostatus to at least **90%**[1]		85.5%	86.8%	87.8%	88.5%	89.1%	89.7%	88.4%	--	90.0%
Reduce the number of new HIV diagnoses by at least **25%**		1,777	1,445	1,354	1,312	1,263	1,207	1,119	1,043	1,333
Reduce the percentage of young gay and bisexual men who have engaged in HIV risk behaviors by at least **10%**[†]		n/a	n/a	n/a	30.7%	--	25.8%	--	28.8%	27.6%
Increasing Access to Care and Improving Health Outcomes										
Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least **85%**		55.4%	54.8%	60.6%	68.4%	72.5%	78.0%	78.7%	86.5%	85.0%
Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least **90%**[Ω]		62.6%	55.6%	72.7%	76.9%	75.6%	75.9%	75.5%	77.7%	90.0%
Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least **80%**[¶]		35.8%	29.1%	44.2%	49.3%	56.1%	57.9%	58.9%	61.9%	80.0%
Reduce the death rate among persons with diagnosed HIV infection by at least **33%**		46.3	40.6	39.4	37.4	35.4	34.7	24.8	--	31.0
Reducing HIV-Related Health Disparities and Health Inequities										
Reduce disparities in the rate of new diagnoses by at least **15%** among gay and bisexual men[§]	*% of Total HIV Diagnoses*	46.3%	49.9%	51.7%	51.2%	52.6%	54.0%	53.2%	55.2%	--
	Disparity Ratio	12.9	14.0	14.5	14.3	14.7	15.1	14.9	15.5	10.9
Reduce disparities in the rate of new diagnoses by at least **15%** among young Black gay and bisexual men[¥§]	*% of Total HIV Diagnoses*	10.2%	12.7%	13.0%	11.5%	12.4%	12.7%	13.0%	12.2%	--
	Disparity Ratio	54.0	67.7	70.2	62.7	68.2	71.5	74.8	71.5	45.9
Reduce disparities in the rate of new diagnoses by at least **15%** among Black females		1.1	0.9	0.8	0.8	0.9	0.7	0.8	0.7	0.90
Increase the percentage of youth with diagnosed HIV infection who are virally suppressed to at least **80%**[¥]		17.9%	17.1%	26.6%	30.6%	37.3%	42.4%	47.3%	47.5%	80.0%
Increase the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least **80%**[§]		38.9%	29.1%	40.8%	46.2%	57.4%	58.6%	57.9%	61.6%	80.0%

Table 4 – Baltimore City Progress Table for Current Residents as of 6/30/2016

NHAS Indicators		Baltimore City**								
		2010 Baseline	2011	2012	2013	2014	2015	2016	2017	2020 Goal
Reducing New HIV Infections										
Increase the percentage of people living with HIV who know their serostatus to at least **90%**[1]		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	90.0%
Reduce the number of new HIV diagnoses by at least **25%**		600	424	437	373	313	325	279	231	450
Reduce the percentage of young gay and bisexual men who have engaged in HIV risk behaviors by at least **10%**[†]		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Increasing Access to Care and Improving Health Outcomes										
Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least **85%**		52.0%	58.4%	63.8%	66.5%	74.6%	79.7%	82.0%	85.7%	85.0%
Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least **90%**[Ω]		67.5%	60.5%	75.6%	79.7%	78.1%	77.1%	76.5%	79.7%	90.0%
Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least **80%**[¶]		35.0%	24.9%	37.1%	43.4%	54.2%	55.5%	56.3%	61.4%	80.0%
Reduce the death rate among persons with diagnosed HIV infection by at least **33%**		59.4	51.1	52.3	47.9	47.1	45.7	32.8	--	39.8
Reducing HIV-Related Health Disparities and Health Inequities										
Reduce disparities in the rate of new diagnoses by at least **15%** among gay and bisexual men[§]	*% of Total HIV Diagnoses*	42.0%	51.1%	47.6%	47.7%	53.5%	54.5%	56.6%	56.7%	--
	Disparity Ratio	11.9	14.7	13.6	13.7	15.5	15.8	16.5	16.5	10.1
Reduce disparities in the rate of new diagnoses by at least **15%** among young Black gay and bisexual men[¥§]	*% of Total HIV Diagnoses*	10.4%	15.1%	13.3%	12.8%	10.9%	15.4%	15.8%	15.9%	--
	Disparity Ratio	30.9	47.3	43.6	43.3	37.4	54.1	56.2	57.1	26.3
Reduce disparities in the rate of new diagnoses by at least **15%** among Black females		0.0	-0.3	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	--
Increase the percentage of youth with diagnosed HIV infection who are virally suppressed to at least **80%**[¥]		16.9%	19.0%	23.3%	27.6%	37.7%	40.3%	42.3%	48.5%	80.0%
Increase the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least **80%**[§]		37.7%	24.7%	36.5%	43.2%	55.8%	57.3%	57.3%	63.8%	80.0%

Table 5 – Baltimore MSA Progress Table for Current Residents as of 6/30/2016

NHAS Indicators		Baltimore MSA**								
		2010 Baseline	2011	2012	2013	2014	2015	2016	2017	2020 Goal
Reducing New HIV Infections										
Increase the percentage of people living with HIV who know their serostatus to at least **90%**[1]		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	90.0%
Reduce the number of new HIV diagnoses by at least **25%**		934	717	679	618	584	541	519	438	701
Reduce the percentage of young gay and bisexual men who have engaged in HIV risk behaviors by at least **10%**[†]		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Increasing Access to Care and Improving Health Outcomes										
Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least **85%**		53.6%	59.1%	63.1%	68.6%	74.1%	80.8%	80.9%	86.0%	85.0%
Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least **90%**[Ω]		67.2%	59.6%	73.9%	78.7%	77.0%	76.3%	75.6%	78.4%	90.0%
Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least **80%**[¶]		36.2%	26.6%	38.5%	45.0%	55.0%	56.1%	56.9%	61.2%	80.0%
Reduce the death rate among persons with diagnosed HIV infection by at least **33%**		55.5	46.9	47.0	44.8	42.6	42.9	29.3	--	37.2
Reducing HIV-Related Health Disparities and Health Inequities										
Reduce disparities in the rate of new diagnoses by at least **15%** among gay and bisexual men[§]	*% of Total HIV Diagnoses*	44.7%	49.9%	52.1%	51.7%	52.8%	53.6%	56.6%	53.8%	--
	Disparity Ratio	12.4	14.0	14.7	14.6	14.9	15.1	16.0	15.2	10.5
Reduce disparities in the rate of new diagnoses by at least **15%** among young Black gay and bisexual men[¥§]	*% of Total HIV Diagnoses*	9.3%	13.4%	13.6%	11.3%	11.5%	13.1%	14.2%	12.9%	--
	Disparity Ratio	50.1	72.4	74.5	62.4	64.4	74.3	82.1	75.8	42.6
Reduce disparities in the rate of new diagnoses by at least **15%** among Black females		1.2	0.9	0.7	0.8	0.8	0.7	0.6	0.8	1.0
Increase the percentage of youth with diagnosed HIV infection who are virally suppressed to at least **80%**[¥]		17.5%	15.4%	23.1%	27.6%	36.2%	38.1%	43.8%	46.3%	80.0%
Increase the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least **80%**[§]		38.2%	27.3%	37.8%	44.0%	56.4%	57.7%	57.6%	62.9%	80.0%

Table 6 – DC MSA Progress Table for Current Residents as of 6/30/2016

NHAS Indicators		Washington MSA**								
		2010 Baseline	2011	2012	2013	2014	2015	2016	2017	2020 Goal
Reducing New HIV Infections										
Increase the percentage of people living with HIV who know their serostatus to at least **90%**[1]		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	90.0%
Reduce the number of new HIV diagnoses by at least **25%**		709	612	589	614	597	584	528	531	532
Reduce the percentage of young gay and bisexual men who have engaged in HIV risk behaviors by at least **10%**†		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Increasing Access to Care and Improving Health Outcomes										
Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least **85%**		55.9%	47.9%	56.2%	67.3%	71.2%	75.3%	76.8%	87.3%	85.0%
Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least **90%**Ω		53.4%	48.7%	70.4%	73.2%	72.4%	74.9%	74.6%	76.5%	90.0%
Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least **80%**¶		32.7%	30.5%	51.0%	54.9%	56.1%	59.7%	61.1%	63.7%	80.0%
Reduce the death rate among persons with diagnosed HIV infection by at least **33%**		29.7	29.0	24.9	23.6	22.8	21.7	15.6	--	19.9
Reducing HIV-Related Health Disparities and Health Inequities										
Reduce disparities in the rate of new diagnoses by at least **15%** among gay and bisexual men§	*% of Total HIV Diagnoses*	48.6%	49.9%	51.7%	50.4%	52.7%	54.2%	50.2%	54.2%	--
	Disparity Ratio	13.6	14.0	14.5	14.1	14.8	15.2	14.0	15.2	11.6
Reduce disparities in the rate of new diagnoses by at least **15%** among young Black gay and bisexual men¥§	*% of Total HIV Diagnoses*	11.2%	12.0%	13.2%	12.0%	13.0%	12.6%	11.5%	11.2%	--
	Disparity Ratio	51.3	55.7	62.1	56.8	62.7	62.5	58.2	58.1	43.6
Reduce disparities in the rate of new diagnoses by at least **15%** among Black females		0.7	0.8	0.5	0.6	0.7	0.5	0.8	0.5	0.6
Increase the percentage of youth with diagnosed HIV infection who are virally suppressed to at least **80%**¥		17.2%	18.7%	31.5%	34.4%	37.5%	47.7%	50.7%	48.9%	80.0%
Increase the percentage of persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least **80%**§		32.4%	27.6%	48.0%	56.6%	57.0%	59.7%	57.2%	63.5%	80.0%

**Data Source: Maryland Department of Health Enhanced HIV/AIDS Reporting System (eHARS), as of June 30, 2018. Not all data has been geocoded and is therefore preliminary.
1 Data only available at the state level.
† Data Source: Youth Risk Behavioral Surveillance System. Baseline: 2013, grades 9 - 12. Data not collected in 2014 or 2016. Data only available at the state level.
Ω Retention in care is defined as a reported CD4 or viral load test result performed or reported antiretroviral use in the specified year.

¶ Viral suppression is defined as the most recent viral load test that was less than 200 copies per milliliter.
§ Risk estimation and redistribution using multiple imputation method. Includes gay and bisexual men who also have engaged in inject drug use.
¥ Living adults/adolescents ages 13-24 diagnosed with HIV.
Jurisdictions: Calvert County, Charles County, Frederick County, Montgomery County, and Prince George's County

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Supplementary Epidemiologic Information

2016 Changes in Presentation of Maryland HIV Epidemiological Data

There are three major changes in presentation of HIV epidemiological data in Maryland that are being phased in during 2016. These changes are:

1) Changes in data reporting lag time.

Previously, Maryland waited 12 months to release HIV data to allow sufficient time for providers to report new cases, for the local health department to complete investigations, and for CDC to identify cases that require inter-state de-duplication. Lag time for provider reporting and time needed to complete investigations has decreased. In addition, cross-jurisdiction case reporting between Maryland, Virginia, and DC has increased. These are the primary jurisdictions for Maryland’s inter-state de-duplication activities. After reviewing the completeness and timeliness of HIV reporting it was determined that a 6 month data lag would be sufficient for new diagnoses of HIV and living cases of HIV/AIDS. For example, over the last 6 years, the average ratio between the number of new HIV diagnoses calculated 6 months after the end of a year and at 12 months after the end of a year was 1.01, or an average 1 percent difference. However, due to the large number of delayed reports out of state deaths, it was determined that a minimum 18 month data lag would be more appropriate for deaths. Therefore, Maryland is changing the production schedule for HIV Epidemiological Profiles. The 2015 data was prepared from a June 30, 2016 data freeze and was made available in the second half of 2016, a full 6 months earlier than previously. Future epidemiological profiles will be prepared in this manner going forward.

2) Changes in residence information.

Since the beginning of the epidemic, official statistics on numbers of cases have been based on residence at diagnosis. Cases with diagnosed HIV that moved into Maryland from another state are not considered to be Maryland cases. Likewise, Maryland cases that moved out of state continue to count as Maryland cases. As calculations begin for the continuum of HIV care and focus has increased on whether cases are engaged in care and have achieved viral suppression, it has become increasingly important to identify whether cases currently reside in Maryland. A 2009 change in the data system that permits the retention of multiple addresses on a case and of an unlimited number of reports on a case electronic laboratory reporting to begin in 2010. There is now sufficient address information over the past several years to allow calculation of current residence in addition to residence at HIV diagnosis and residence at AIDS diagnosis. A significant amount of migration of HIV cases in and out of Maryland and between jurisdictions within Maryland have been identified. Using residence at diagnosis, Maryland had 31,882 cases living on 12/31/2015. This increases to 35,133 (+10.2

percent) by last known residence (ever) and decreases to 29,523 (-7.4 percent) by recent residence (since 2009). People with no address since 2009 are out-of-care, and based on recent data-to-care linkage activities, the majority of these cases have likely moved out of state, including many who have died out of state. Future data reports will continue to use residence at diagnosis for new cases of HIV and new cases of AIDS. For living cases of HIV/AIDS, they will report both residence at diagnosis and recent residence. Recent residence will include both cases diagnosed in Maryland and cases diagnosed outside of Maryland, so long as their last known residence was since 2009 and was in Maryland. Cases that have moved out of Maryland or that have not been reported since 2009 will not be counted as having a recent residence in Maryland.

3) Changes in mode of exposure information.

Most cases are not initially reported with mode of HIV exposure due to the increasing importance of using laboratory reporting to quickly identify new cases. The likelihood that mode of exposure information is collected by health care providers and is available to be reported to HIV surveillance increases over time as cases move through the continuum of care from diagnosis to linkage to care to engagement in care with an HIV specialist. Currently only 84 percent of cases in Maryland have an identified mode of exposure and this can vary substantially by year and by population. Previously, the missing data was handled by reporting all exposures but calculating percent distributions among those cases with a reported risk. This works well for percentages but not for numbers of cases. In order to be able to use numbers of cases by exposure category over time a statistical adjustment called risk redistribution that uses multiple imputation methods can be applied. Risk redistribution uses the characteristics of cases with risk to assign a fractional imputed risk to cases without risk. These weighted values are summed up to provide an estimated number of persons in the mode of exposure category. The table below shows a comparison of the percentages by mode of exposure for the unweighted data, for only the data with risk, and for the redistributed risk. The percent distributions are similar for the data with risk and the redistributed risk, but the redistributed risk allows the presentation of data for numbers of cases in addition to percent of cases. Future data presentations will include estimated mode of exposure using risk redistribution.

Mode of Exposure	Unweighted Percent	Percent among Those with Risk	Redistributed Risk Percent
MSM	29.8%	35.9%	34.6%
IDU	27.1%	32.7%	31.2%
MSM/IDU	4.0%	4.8%	4.4%
Heterosexual	21.4%	25.8%	27.6%
Other Adult	0.6%	0.8%	0.6%
Pediatric	1.4%	1.4%	1.4%
No Risk Reported	15.7%	---	0.0%

Table 1 – Persons Living with HIV/AIDS and Rate per 100,000 Population on 12/31 of Each Year by Recent Address, as Reported through 6/30/2018

Persons Living with HIV/AIDS											
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Maryland	No.	25,477	26,495	27,643	28,513	29,278	30,026	30,739	31,363	32,067	32,892
	Rate	448.1	462.4	493.9	502.3	509.7	518.5	524.8	522.2	533.0	543.5
Baltimore City	No.	11,531	11,753	11,994	12,100	12,208	12,270	12,268	12,305	12,357	12,473
	Rate	1,859.3	1,894.1	1,931.5	1,953.2	1,960.5	1,972.3	1,969.8	1,978.8	2,384.8	2,039.2
Metropolitan Areas											
Baltimore MSA	No.	15,264	15,754	16,263	16,600	16,892	17,131	17,335	17,502	17,733	18,024
	Rate	569.6	584.3	600.0	608.3	612.9	618.3	622.2	625.7	633.6	641.8
Washington MSA	No.	7,861	8,359	8,940	9,420	9,889	10,392	10,886	11,331	11,787	12,278
	Rate	348.8	366.8	388.0	403.2	417.4	434.5	449.1	464.1	481.4	496.1
Rural	No.	913	942	982	1,021	1,040	1,058	1,085	1,120	1,146	1,193
	Rate	121.5	124.7	129.3	133.8	135.9	138.0	141.5	146.0	149.0	155.1
Corrections	No.	1346	1341	1357	1370	1352	1338	1324	1300	1288	1281
Planning Regions											
Central	No.	15,228	15,713	16,218	16,554	16,846	17,085	17,288	17,455	17,682	17,972
	Rate	578.4	593.3	609.1	617.5	622.2	627.6	631.6	635.1	643.0	651.5
Eastern	No.	632	655	680	702	713	723	743	772	802	836
	Rate	142.0	146.4	151.4	155.7	157.8	159.8	164.1	170.3	176.8	183.8
Southern	No.	425	454	479	504	539	575	614	639	671	707
	Rate	127.4	135.0	140.7	145.7	154.2	162.9	172.6	178.4	185.6	194.3
Suburban	No.	7,300	7,766	8,302	8,750	9,174	9,639	10,096	10,511	10,926	11,370
	Rate	407.2	427.8	452.4	470.2	485.5	505.5	521.8	539.1	559.8	576.7
Western	No.	546	566	607	633	654	666	674	686	698	726
	Rate	113.6	117.2	124.9	129.3	132.8	134.7	135.9	138.1	139.8	144.2

Table 2 – New Diagnoses of HIV and Rate per 100,000 Population by Year of HIV Diagnosis and Address at HIV Diagnosis, as Reported through 6/30/2018

New HIV Diagnoses											
		Year of HIV Diagnosis									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Maryland	No.	2,074	1,730	1,777	1,445	1,354	1,312	1,263	1,207	1,119	1,043
	Rate	36.5	30.2	25.0	23.2	22.3	21.3	20.2	20.1	18.6	17.2
Baltimore City	No.	794	610	600	424	437	373	313	325	279	231
	Rate	128.0	98.3	96.6	68.4	70.2	60.0	50.3	52.3	53.8	37.8
Metropolitan Areas											
Baltimore MSA	No.	1,137	928	934	717	679	618	584	541	519	438
	Rate	42.4	34.4	34.5	26.3	24.6	22.3	21.0	19.3	18.5	15.6
Washington MSA	No.	785	685	709	612	589	614	597	584	528	531
	Rate	34.8	30.1	30.8	26.2	24.9	25.7	24.6	23.9	21.6	21.5
Rural	No.	76	54	60	60	47	46	49	55	46	47
	Rate	10.1	7.2	7.9	7.9	6.1	6.0	6.4	7.2	6.0	6.1
Corrections	No.	70	57	70	50	35	28	27	24	23	22
Planning Regions											
Central	No.	1,135	924	931	713	678	617	583	540	517	438
	Rate	43.1	34.9	35.0	26.6	25.0	22.7	21.3	19.6	18.8	15.9
Eastern	No.	37	41	41	46	27	30	35	40	41	31
	Rate	8.3	9.2	9.1	10.2	6.0	6.6	7.7	8.8	9.0	6.8
Southern	No.	38	39	39	29	48	40	53	31	36	36
	Rate	11.4	11.6	11.5	8.4	13.7	11.3	14.9	8.7	10.0	9.9
Suburban	No.	721	641	653	573	532	569	542	547	479	485
	Rate	40.2	35.3	35.6	30.8	28.2	29.8	28.0	28.1	24.5	24.6
Western	No.	73	28	43	34	34	28	23	25	23	31
	Rate	15.2	5.8	8.8	6.9	6.9	5.7	4.6	5.0	4.6	6.2

Table 3 – Deaths among AIDS Cases and Rate per 100,000 Population by Year of Death, as Reported through 6/30/2018

Deaths among AIDS Cases											
		Year of Death									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Maryland	No.	627	590	532	488	488	486	477	489	361	201
	Rate	11.0	10.3	8.5	8.4	8.3	8.0	8.2	8.1	6.0	3.3
Baltimore City	No.	357	307	290	262	266	260	244	245	187	111
	Rate	57.6	49.5	46.7	42.3	42.7	41.8	39.2	39.4	36.1	18.1
Metropolitan Areas											
Baltimore MSA	No.	432	378	363	325	327	333	311	333	236	147
	Rate	16.1	14.0	13.4	11.9	11.9	12.0	11.2	11.9	8.4	5.2
Washington MSA	No.	126	149	113	115	102	102	111	114	82	38
	Rate	5.6	6.5	4.9	4.9	4.3	4.3	4.6	4.7	3.3	1.5
Rural	No.	14	21	20	16	19	22	20	19	18	2
	Rate	1.9	2.8	2.6	2.1	2.5	2.9	2.6	2.5	2.3	0.3
Corrections	No.	49	41	34	28	36	25	32	22	24	13
Planning Regions											
Central	No.	432	378	363	324	326	332	311	333	236	147
	Rate	16.4	14.3	13.6	12.1	12.0	12.2	11.4	12.1	8.6	5.3
Eastern	No.	16	15	16	17	15	16	15	10	13	2
	Rate	3.6	3.4	3.6	3.8	3.3	3.5	3.3	2.2	2.9	0.4
Southern	No.	3	9	11	3	8	5	11	4	4	0
	Rate	0.9	2.7	3.2	0.9	2.3	1.4	3.1	1.1	1.1	0.0
Suburban	No.	121	140	104	110	95	94	96	108	76	38
	Rate	6.7	7.7	5.7	5.9	5.0	4.9	5.0	5.5	3.9	1.9
Western	No.	6	7	4	6	8	14	12	12	8	1
	Rate	1.2	1.4	0.8	1.2	1.6	2.8	2.4	2.4	1.6	0.2

* 2014 deaths are incomplete due to delays in reporting deaths

Table 4A – Population Data by Residence and Selected Characteristics

	Residence on 7/1/2017							
	Maryland		Baltimore City		Baltimore MSA		Washington MSA	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Population[a]	6,052,177	100.0%	611,648	100.0%	2,808,175	100.0%	2,474,790	100.0%
Sex[a]								
Male	2,934,154	48.5%	287,234	47.0%	1,354,154	48.2%	1,198,002	48.4%
Female	3,118,023	51.5%	324,414	53.0%	1,454,021	51.8%	1,276,788	51.6%
Race/Ethnicity[a]								
Black	1,798,282	29.7%	379,995	62.1%	817,049	29.1%	870,075	35.2%
White	3,077,907	50.9%	169,424	27.7%	1,588,429	56.6%	900,634	36.4%
Hispanic	614,248	10.1%	32,495	5.3%	164,978	5.9%	413,565	16.7%
Asian/Pacific Islander	403,014	6.7%	16,982	2.8%	165,310	5.9%	223,346	9.0%
American Indian/Native Alaskan	14,632	0.2%	1,722	0.3%	6,926	0.2%	5,833	0.2%
Multiracial	144,094	2.4%	11,030	1.8%	65,483	2.3%	61,337	2.5%
Age on 7/1/2015[a]								
<13	966,228	16.0%	94,327	15.4%	443,426	15.8%	408,486	16.5%
13-24	921,966	15.2%	91,129	14.9%	426,695	15.2%	377,893	15.3%
25-34	837,918	13.8%	117,424	19.2%	408,310	14.5%	333,058	13.5%
35-44	769,410	12.7%	75,037	12.3%	346,118	12.3%	331,908	13.4%
45-54	843,977	13.9%	73,393	12.0%	389,933	13.9%	357,005	14.4%
55-64	808,007	13.4%	77,413	12.7%	372,099	13.3%	323,668	13.1%
65+	904,671	14.9%	82,925	13.6%	412,305	14.7%	342,772	13.9%
	Residence during 2017							
	Maryland		Baltimore City		Baltimore MSA		Washington MSA	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Socio-economic[b]								
In Poverty	562,852	9.3%	135,786	22.2%	286,434	10.2%	195,508	7.9%
No Health Insurance[c]	369,183	6.1%	42,204	6.9%	137,601	4.9%	111,366	4.5%
High School/GED or less[d]	2,094,053	34.6%	275,242	45.0%	673,883	34.6%	1,167,593	27.4%
Country of Birth[b]								
United States	4,154,170	68.6%	477,751	78.1%	2,072,605	73.8%	1,466,951	59.3%
Foreign Born	834,945	13.8%	46,613	7.6%	262,337	9.3%	538,435	21.8%

a = Intercensal estimates for 7/1/2015; b = American Community Survey estimates for 2014; c = Among civilian non-institutionalized population;
d = Among population 25 years and over

Table 4B – HIV/AIDS Data by Residence and Selected Characteristics, as Reported through 6/30/2018

	Residence*							
	Maryland		Baltimore City		Baltimore MSA		Washington MSA	
	No.		No.		No.		No.	
HIV Diagnoses during 2017	1,043		231		438		531	
Living HIV/AIDS Cases on 12/31/2017	32,892		12,473		18,024		12,278	
Living AIDS Cases on 12/31/2017	17,527		6,877		9,820		6,261	
AIDS Deaths during 2016	361		187		236		82	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Living HIV/AIDS Cases on 12/31/2017	32,892	100.0%	12,473	100.0%	18,024	100.0%	12,278	100.0%
Sex at Birth								
Male	21,549	65.5%	7,946	63.7%	11,700	64.9%	7,858	64.0%
Female	11,343	34.5%	4,527	36.3%	6,324	35.1%	4,420	36.0%
Race/Ethnicity								
Black	24,453	74.3%	10,272	82.4%	13,578	75.3%	9,188	74.8%
White	4,445	13.5%	1,155	9.3%	2,596	14.4%	1,229	10.0%
Hispanic	2,096	6.4%	423	3.4%	767	4.3%	1,217	9.9%
Asian/Pacific Islander	195	0.6%	21	0.2%	69	0.4%	114	0.9%
American Indian/ Native Alaskan	21	0.1%	9	0.1%	16	0.1%	5	0.0%
Multiracial	1,682	5.1%	593	4.8%	998	5.5%	525	4.3%
Age on 12/31/2017								
<13	49	0.1%	13	0.1%	22	0.1%	24	0.2%
13-24	1,033	3.1%	299	2.4%	490	2.7%	469	3.8%
25-34	4,969	15.1%	1,625	13.0%	2,549	14.1%	2,114	17.2%
35-44	5,952	18.1%	1,839	14.7%	2,875	16.0%	2,672	21.8%
45-54	9,600	29.2%	3,562	28.6%	5,135	28.5%	3,616	29.5%
55-64	8,284	25.2%	3,793	30.4%	5,097	28.3%	2,425	19.8%
65+	3,005	9.1%	1,342	10.8%	1,856	10.3%	958	7.8%
Estimated Exposure Category								
MSM	11,961	36.4%	3,722	29.8%	6,115	33.9%	5,062	41.2%
HET	12,292	37.4%	3,940	31.6%	5,988	33.2%	5,678	46.2%
IDU	6,829	20.8%	3,971	31.8%	4,782	26.5%	1,043	8.5%
MSM/IDU	1,299	3.9%	606	4.9%	785	4.4%	300	2.4%
Perinatal Transmission	410	1.2%	191	1.5%	262	1.5%	133	1.1%
Country of Birth								
United States	28,881	87.8%	11,956	95.9%	16,841	93.4%	9,584	78.1%
Foreign Born	3,191	9.7%	263	2.1%	735	4.1%	2,370	19.3%

* HIV diagnoses by address at HIV diagnosis. Living HIV/AIDS cases and living AIDS cases by recent address. AIDS deaths by address at AIDS diagnosis.

Table 4C – HIV/AIDS Data by Residence and Selected Characteristics, as Reported through 6/30/2018

	Residence*							
	Maryland		Baltimore City		Baltimore MSA		Washington MSA	
	No.		No.		No.		No.	
HIV Diagnoses during 2010	1,777		600		934		709	
Living HIV/AIDS Cases on 12/31/2010	27,643		11,994		16,263		8,940	
Living AIDS Cases on 12/31/2010	15,459		6,741		9,136		4,872	
AIDS Deaths during 2009	590		307		378		149	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Living HIV/AIDS Cases on 12/31/2010	27,643	100.0%	11,994	100.0%	16,263	100.0%	8,940	100.0%
Sex at Birth								
Male	17,640	63.8%	7,404	61.7%	10,224	62.9%	5,548	62.1%
Female	10,003	36.2%	4,590	38.3%	6,039	37.1%	3,392	37.9%
Race/Ethnicity								
Black	20,661	74.7%	9,900	82.5%	12,395	76.2%	6,643	74.3%
White	3,843	13.9%	1,084	9.0%	2,262	13.9%	1,016	11.4%
Hispanic	1,483	5.4%	361	3.0%	602	3.7%	793	8.9%
Asian/Pacific Islander	105	0.4%	18	0.2%	41	0.3%	58	0.6%
American Indian/ Native Alaskan	16	0.1%	8	0.1%	10	0.1%	3	0.0%
Multiracial	1,535	5.6%	623	5.2%	953	5.9%	427	4.8%
Age on 12/31/2010								
<13	122	0.4%	42	0.4%	67	0.4%	52	0.6%
13-24	1,452	5.3%	594	5.0%	853	5.2%	518	5.8%
25-34	3,827	13.8%	1,346	11.2%	1,960	12.1%	1,586	17.7%
35-44	6,980	25.3%	2,651	22.1%	3,723	22.9%	2,576	28.8%
45-54	9,889	35.8%	4,693	39.1%	6,181	38.0%	2,714	30.4%
55-64	4,312	15.6%	2,181	18.2%	2,825	17.4%	1,147	12.8%
65+	1,061	3.8%	487	4.1%	654	4.0%	347	3.9%
Estimated Exposure Category								
MSM	8,229	29.8%	2,809	23.4%	4,418	27.2%	3,238	36.2%
HET	9,738	35.2%	3,533	29.5%	5,045	31.0%	4,205	47.0%
IDU	7,829	28.3%	4,754	39.6%	5,608	34.5%	1,033	11.6%
MSM/IDU	1,286	4.7%	652	5.4%	828	5.1%	287	3.2%
Perinatal Transmission	395	1.4%	200	1.7%	269	1.7%	113	1.3%
Country of Birth								
United States	25,152	91.0%	11,682	97.4%	15,605	96.0%	7,183	80.3%
Foreign Born	2,176	7.9%	199	1.7%	474	2.9%	1,650	18.5%

* HIV diagnoses by address at HIV diagnosis. Living HIV/AIDS cases and living AIDS cases by recent address (before 12/31/2010). AIDS deaths by address at AIDS diagnosis.

Table 5A – New Diagnoses of HIV in Adult/Adolescent (age 13+) Maryland Residents at HIV Diagnosis by Year of HIV Diagnosis and Selected Characteristics, as Reported through 6/30/2018

		Year of HIV Diagnosis									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Maryland	No.	1,607	1,720	1,774	1,441	1,351	1,309	1,257	1,207	1,115	1,040
Sex at Birth											
Male	No.	1,042	1,136	1,206	1,011	979	939	887	878	798	752
Female	No.	565	584	568	430	372	370	370	329	317	288
Race/Ethnicity											
Black	No.	1,205	1,293	1,296	1,032	984	964	924	896	826	736
White	No.	178	209	226	196	156	173	144	136	146	148
Hispanic	No.	118	118	127	131	105	94	112	107	91	106
Asian/Pacific Islander	No.	9	8	15	8	17	11	16	12	15	14
American Indian/ Native Alaskan	No.	1	1	2	0	3	0	0	3	0	0
Multiracial	No.	96	91	108	74	86	67	61	53	37	36
Age at Diagnosis											
13-24	No.	293	313	328	304	304	258	252	253	227	224
25-34	No.	378	399	432	378	357	384	372	386	363	361
35-44	No.	415	438	409	272	276	271	284	236	210	188
45-54	No.	355	406	420	337	259	224	216	216	179	148
55-64	No.	135	123	146	121	118	124	99	86	100	83
65+	No.	31	41	39	29	37	48	34	30	36	36
Estimated Exposure Category											
MSM	No.	617	703	787	693	678	638	650	636	575	560
HET	No.	685	747	735	581	540	537	521	481	453	391
IDU	No.	263	237	212	139	112	99	71	73	66	72
MSM/IDU	No.	42	33	36	28	22	34	15	15	21	16
Country of Birth											
United States	No.	155	133	149	132	133	171	173	157	166	149
Foreign Born	No.	1,441	1,485	1,492	1,199	1,139	1,068	976	972	911	832

Table 5B – New Diagnoses of HIV in Adult/Adolescent (age 13+) Baltimore City Residents at HIV Diagnosis by Year of HIV Diagnosis and Selected Characteristics, as Reported through 6/30/2018

		Year of HIV Diagnosis									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Baltimore City	No.	608	607	599	423	435	373	311	325	278	231
Sex at Birth											
Male	No.	389	389	400	317	306	266	228	242	213	176
Female	No.	219	218	199	106	129	107	83	83	65	55
Race/Ethnicity											
Black	No.	498	502	494	338	359	305	251	263	218	189
White	No.	54	52	41	43	35	34	29	30	32	31
Hispanic	No.	21	21	24	19	22	15	11	17	19	7
Asian/Pacific Islander	No.	1	1	1	0	1	0	1	1	0	1
American Indian/Native Alaskan	No.	1	0	2	0	1	0	0	1	0	0
Multiracial	No.	33	31	37	23	17	19	19	13	9	3
Age at Diagnosis											
13-24	No.	121	104	104	99	102	80	56	75	62	45
25-34	No.	98	135	108	98	106	101	87	105	100	75
35-44	No.	153	141	136	66	73	60	66	50	38	33
45-54	No.	159	157	177	111	99	69	62	63	40	39
55-64	No.	63	53	60	42	40	49	30	27	29	30
65+	No.	14	17	14	7	15	14	10	5	9	9
Estimated Exposure Category											
MSM	No.	192	220	237	209	203	165	161	170	149	128
HET	No.	242	262	245	146	167	150	118	113	93	76
IDU	No.	152	113	103	60	60	43	26	35	27	23
MSM/IDU	No.	22	12	15	8	5	12	6	7	9	4
Country of Birth											
United States	No.	595	545	542	389	389	342	269	287	258	212
Foreign Born	No.	11	9	9	6	13	6	9	12	14	9

Table 5C – New Diagnoses of HIV in Adult/Adolescent (age 13+) Baltimore MSA Residents at HIV Diagnosis by Year of HIV Diagnosis and Selected Characteristics, as Reported through 6/30/2018

		Year of HIV Diagnosis									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Baltimore MSA	No.	869	922	933	715	677	617	582	541	518	437
Sex at Birth											
Male	No.	560	608	623	506	498	449	419	396	392	311
Female	No.	309	314	310	209	179	168	163	145	126	126
Race/Ethnicity											
Black	No.	666	700	690	510	497	450	437	396	365	313
White	No.	101	129	120	119	90	96	68	78	94	80
Hispanic	No.	41	44	50	45	41	32	33	33	35	25
Asian/Pacific Islander	No.	4	2	9	1	8	4	4	4	4	6
American Indian/ Native Alaskan	No.	2	1	4	0	5	0	0	5	0	0
Multiracial	No.	56	47	62	40	39	35	40	28	20	13
Age at Diagnosis											
13-24	No.	165	158	171	161	161	124	110	112	108	88
25-34	No.	173	201	187	173	165	166	172	183	171	143
35-44	No.	216	224	211	118	129	113	122	92	86	69
45-54	No.	210	234	255	178	138	119	111	99	77	73
55-64	No.	88	81	90	72	59	66	46	39	60	49
65+	No.	17	24	19	13	25	29	21	16	16	15
Estimated Exposure Category											
MSM	No.	311	364	396	341	344	300	301	280	282	229
HET	No.	347	385	381	272	247	235	237	200	185	158
IDU	No.	185	155	132	85	74	60	36	51	39	43
MSM/IDU	No.	27	18	21	17	12	20	7	10	12	7
Country of Birth											
United States	No.	831	824	824	621	595	535	474	472	450	375
Foreign Born	No.	35	26	31	30	30	34	51	33	54	42

Table 5D – New Diagnoses of HIV in Adult/Adolescent (age 13+) Washington MSA Residents at HIV Diagnosis by Year of HIV Diagnosis and Selected Characteristics, as Reported through 6/30/2018

		Year of HIV Diagnosis									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Washington MSA	No.	634	682	708	610	588	612	593	584	525	529
Sex at Birth											
Male	No.	409	442	481	408	417	426	406	416	352	379
Female	No.	225	240	227	202	171	186	187	168	173	150
Race/Ethnicity											
Black	No.	478	527	528	445	433	472	438	447	420	383
White	No.	43	48	72	55	52	50	54	37	33	50
Hispanic	No.	74	68	68	76	59	57	71	72	50	75
Asian/Pacific Islander	No.	5	6	5	6	9	7	12	8	9	8
American Indian/Native Alaskan	No.	0	1	0	0	1	0	0	1	0	0
Multiracial	No.	34	32	35	28	34	26	18	19	13	13
Age at Diagnosis											
13-24	No.	112	132	135	122	127	117	124	123	98	112
25-34	No.	170	168	207	174	165	194	180	180	165	189
35-44	No.	173	185	165	127	130	149	147	132	118	108
45-54	No.	126	144	135	132	103	90	87	95	89	70
55-64	No.	40	40	50	42	53	46	42	42	35	30
65+	No.	13	13	16	13	10	16	13	12	20	20
Estimated Exposure Category											
MSM	No.	269	292	333	297	298	301	308	312	257	283
HET	No.	309	327	306	271	259	277	257	247	241	219
IDU	No.	43	54	57	33	24	24	21	20	18	21
MSM/IDU	No.	13	10	11	9	6	10	7	4	8	5
Country of Birth											
United States	No.	510	551	552	475	466	460	432	429	397	388
Foreign Born	No.	119	106	114	96	100	133	114	118	104	106

Table 6 – Perinatal HIV Exposures, Infections, and Transmission Rate per 100 Births by Year of Birth and Address at Birth, as Reported through 6/30/2018

Address at Birth		Year of Birth									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Maryland	Exp.	201	171	174	172	182	162	199	152	182	164
	Inf.	8	3	4	2	1	1	3	0	2	1
	Rate	4.0	1.8	2.3	1.2	0.5	0.6	1.5	0.0	1.1	0.6
Baltimore City	Exp.	63	57	39	53	55	36	37	32	46	28
	Inf.	3	2	1	0	1	0	2	0	0	0
	Rate	4.8	3.5	2.6	0.0	1.8	0.0	5.4	0.0	0.0	0.0
Metropolitan Areas											
Baltimore MSA	Exp.	125	123	94	107	101	84	97	74	99	65
	Inf.	5	3	2	0	1	0	2	0	0	0
	Rate	4.0	2.4	2.1	0.0	1.0	0.0	2.1	0.0	0.0	0.0
Washington MSA	Exp.	78	40	76	65	76	71	95	74	78	92
	Inf.	2	0	1	2	0	1	1	0	2	1
	Rate	2.6	0.0	1.3	3.1	0.0	1.4	1.1	0.0	2.6	1.1

* 2015 numbers are incomplete due to delays in reporting exposed births

Table 7 – New Diagnoses of HIV in Adult/Adolescent (age 13+) Maryland Residents at HIV Diagnosis and Number and Percent with an AIDS Diagnosis within 12 months of HIV Diagnosis by Selected Characteristics, as Reported through 6/30/2018

	Residence at HIV Diagnosis											
	Maryland			Baltimore City			Baltimore MSA			Washington MSA		
	Total	AIDS w/in 12 mos.		Total	AIDS w/in 12 mos.		Total	AIDS w/in 12 mos.		Total	AIDS w/in 12 mos.	
	No.	No.	Pct.	No.	No.	Pct.	No.	No.	Pct.	No.	No.	Pct.
Total	1,040	286	27.5%	231	48	20.8%	437	108	24.7%	529	165	31.2%
Sex at Birth												
Male	752	201	26.7%	176	37	21.0%	311	75	24.1%	379	115	30.3%
Female	288	85	29.5%	55	11	20.0%	126	33	26.2%	150	50	33.3%
Race/Ethnicity												
Black	736	186	25.3%	189	40	21.2%	313	69	22.0%	383	112	29.2%
White	148	45	30.4%	31	6	19.4%	80	25	31.3%	50	16	32.0%
Hispanic	106	36	34.0%	7	1	14.3%	25	5	20.0%	75	29	38.7%
Asian/Pacific Islander	14	7	50.0%	1	0	0.0%	6	3	50.0%	8	4	50.0%
American Indian/ Native Alaskan	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%
Multiracial	36	12	33.3%	3	1	33.3%	13	6	46.2%	13	4	30.8%
Age at Diagnosis												
13-24	224	30	13.4%	45	6	13.3%	88	12	13.6%	112	17	15.2%
25-34	361	88	24.4%	75	13	17.3%	143	31	21.7%	189	52	27.5%
35-44	188	62	33.0%	33	7	21.2%	69	17	24.6%	108	43	39.8%
45-54	148	60	40.5%	39	10	25.6%	73	23	31.5%	70	34	48.6%
55-64	83	30	36.1%	30	7	23.3%	49	16	32.7%	30	13	43.3%
65+	36	16	44.4%	9	5	55.6%	15	9	60.0%	20	6	30.0%
Estimated Exposure Category												
MSM	560	131	23.4%	128	25	19.5%	229	49	21.4%	283	74	26.1%
HET	391	129	33.0%	76	18	23.7%	158	44	27.8%	219	83	37.9%
IDU	72	24	33.3%	23	4	17.4%	43	12	27.9%	21	8	38.1%
MSM/IDU	16	3	18.8%	4	1	25.0%	7	2	28.6%	5	1	20.0%
Other	2	0	0.0%	0	0	0.0%	0	0	0.0%	1	0	0.0%
Country of Birth												
United States	832	223	26.8%	212	43	20.3%	375	90	24.0%	388	123	31.7%
Foreign Born	149	51	34.2%	9	2	22.2%	42	14	33.3%	106	36	34.0%

Table 8 – HIV Continuum of Care for 2017 in Adult/Adolescent (age 13+) Maryland Residents by Recent Address and Selected Characteristics

	HIV Continuum of Care													
	Among Current Maryland Residents								Among those Diagnosed in 2017					
	HIV Infected		HIV Diagnosed		In Care		Viral Suppression		HIV Diagnoses		Linked to Care 1 Month		Linked to Care 3 Months	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Maryland	34,577	100.0%	30,566	88.4%	23,743	68.7%	18,920	54.7%	1,040	100.0%	900	86.5%	957	92.0%
Black	25,660	100.0%	22,683	88.4%	17,612	68.6%	13,824	53.9%	736	100.0%	631	85.7%	671	91.2%
Black MSM	8,495	100.0%	7,510	88.4%	5,659	66.6%	4,361	51.3%	362	100.0%	313	86.3%	328	90.6%
Black Women	9,679	100.0%	8,556	88.4%	6,892	71.2%	5,508	56.9%	234	100.0%	206	88.0%	219	93.6%
MSM+MSM/IDU	14,672	100.0%	12,970	88.4%	9,920	67.6%	7,971	54.3%	576	100.0%	504	87.6%	530	92.1%
IDU+MSM/IDU	7,706	100.0%	6,812	88.4%	5,463	70.9%	4,221	54.8%	88	100.0%	70	79.7%	76	86.4%
13-29	3,681	100.0%	3,254	88.4%	2,427	65.9%	1,595	43.3%	421	100.0%	359	85.3%	379	90.0%
30-49	14,111	100.0%	12,474	88.4%	9,410	66.7%	7,358	52.1%	420	100.0%	373	88.8%	396	94.3%
50+	16,785	100.0%	14,838	88.4%	11,906	70.9%	9,967	59.4%	199	100.0%	168	84.4%	182	91.5%
Baltimore City	11,825	100.0%	10,453	88.4%	8,243	69.7%	6,344	53.7%	231	100.0%	198	85.7%	212	91.8%
Black	9,782	100.0%	8,647	88.4%	6,813	69.7%	5,218	53.3%	189	100.0%	163	86.2%	172	91.0%
Black MSM	2,786	100.0%	2,463	88.4%	1,860	66.8%	1,381	49.6%	102	100.0%	89	87.3%	93	91.5%
Black Women	3,660	100.0%	3,235	88.4%	2,674	73.1%	2,067	56.5%	49	100.0%	43	87.8%	45	91.8%
MSM+MSM/IDU	4,429	100.0%	3,915	88.4%	3,024	68.3%	2,331	52.6%	132	100.0%	114	86.4%	121	92.0%
IDU+MSM/IDU	4,120	100.0%	3,642	88.4%	2,984	72.4%	2,307	56.0%	27	100.0%	22	81.1%	23	85.7%
13-29	1,077	100.0%	952	88.4%	717	66.6%	435	40.4%	86	100.0%	73	84.9%	76	88.4%
30-49	4,139	100.0%	3,659	88.4%	2,766	66.8%	2,027	49.0%	82	100.0%	69	84.1%	78	95.1%
50+	6,609	100.0%	5,842	88.4%	4,760	72.0%	3,881	58.7%	63	100.0%	56	88.9%	58	92.1%
Baltimore MSA	18,658	100.0%	16,494	88.4%	12,939	69.3%	10,092	54.1%	437	100.0%	376	86.0%	402	92.0%
Black	14,052	100.0%	12,422	88.4%	9,756	69.4%	7,513	53.5%	313	100.0%	266	85.0%	283	90.4%
Black MSM	4,165	100.0%	3,682	88.4%	2,786	66.9%	2,091	50.2%	159	100.0%	135	84.4%	142	89.0%
Black Women	5,421	100.0%	4,792	88.4%	3,930	72.5%	3,061	56.5%	96	100.0%	86	89.6%	90	93.8%
MSM+MSM/IDU	7,390	100.0%	6,533	88.4%	5,024	68.0%	3,966	53.7%	236	100.0%	204	86.5%	215	92.3%
IDU+MSM/IDU	5,384	100.0%	4,759	88.4%	3,883	72.1%	3,003	55.8%	50	100.0%	40	80.0%	44	88.4%
13-29	1,821	100.0%	1,610	88.4%	1,186	65.1%	736	40.4%	166	100.0%	139	83.7%	147	88.6%
30-49	6,941	100.0%	6,136	88.4%	4,653	67.0%	3,518	50.7%	173	100.0%	151	87.3%	164	94.8%
50+	9,896	100.0%	8,748	88.4%	7,100	71.7%	5,835	59.0%	98	100.0%	86	87.8%	91	92.9%
Washington MSA	13,204	100.0%	11,672	88.4%	8,921	67.6%	7,430	56.3%	529	100.0%	462	87.3%	489	92.4%
Black	9,924	100.0%	8,773	88.4%	6,695	67.5%	5,492	55.3%	383	100.0%	334	87.2%	355	92.7%
Black MSM	3,903	100.0%	3,450	88.4%	2,587	66.3%	2,073	53.1%	175	100.0%	155	88.6%	163	93.2%
Black Women	3,859	100.0%	3,411	88.4%	2,678	69.4%	2,232	57.8%	131	100.0%	114	87.0%	123	93.9%
MSM+MSM/IDU	6,206	100.0%	5,486	88.4%	4,151	66.9%	3,435	55.4%	288	100.0%	256	89.0%	269	93.5%
IDU+MSM/IDU	1,282	100.0%	1,133	88.4%	857	66.9%	716	55.9%	26	100.0%	21	79.1%	23	85.6%
13-29	1,620	100.0%	1,432	88.4%	1,073	66.2%	753	46.5%	214	100.0%	187	87.4%	196	91.6%
30-49	6,141	100.0%	5,429	88.4%	4,071	66.3%	3,366	54.8%	223	100.0%	201	90.1%	211	94.6%
50+	5,442	100.0%	4,811	88.4%	3777	69.4%	3,311	60.8%	92	100.0%	74	80.4%	82	89.1%

Table 9 – Adults/Adolescents (age 13+) Living with HIV/AIDS on 12/31/2017 by Recent Address, Sex at Birth, Race/Ethnicity, and Estimated Exposure Category, as Reported through 6/30/2018

Adults/Adolescents Living with HIV/AIDS on 12/31/2017						
Recent Address Sex at Birth	Race/Ethnicity	Estimated Exposure Category				
		MSM	IDU	HET	MSM/IDU	Total
Maryland		No.	No.	No.	No.	No.
Male	Black	7,510	2,773	2,865	814	13,962
	White	2,418	282	253	174	3,127
	Hispanic	990	99	338	67	1,494
	Other	897	181	202	101	1,381
Female	Black	-	1,806	6,521	-	8,327
	White	-	288	468	-	756
	Hispanic	-	58	410	-	468
	Other	-	169	401	-	570
		MSM	IDU	HET	MSM/IDU	Total
Baltimore City		No.	No.	No.	No.	No.
Male	Black	2,463	1,559	904	436	5,362
	White	500	82	31	48	661
	Hispanic	173	39	60	22	294
	Other	229	70	43	46	388
Female	Black	-	1,129	2,013	-	3,142
	White	-	100	71	-	171
	Hispanic	-	27	67	-	94
	Other	-	88	104	-	192
		MSM	IDU	HET	MSM/IDU	Total
Baltimore MSA		No.	No.	No.	No.	No.
Male	Black	3,682	1,930	1,370	546	7,528
	White	1,310	181	145	95	1,731
	Hispanic	352	54	114	36	556
	Other	446	118	109	65	738
Female	Black	-	1,373	3,270	-	4,643
	White	-	200	255	-	455
	Hispanic	-	32	151	-	183
	Other	-	128	227	-	355
		MSM	IDU	HET	MSM/IDU	Total
Washington MSA		No.	No.	No.	No.	No.
Male	Black	3,450	366	1,301	186	5,303
	White	780	36	63	46	925
	Hispanic	592	27	207	26	852
	Other	387	25	80	20	512
Female	Black	-	333	3,007	-	3,340
	White	-	29	136	-	165
	Hispanic	-	15	233	-	248
	Other	-	24	147	-	171

Table 10 – Maryland Residents Living with HIV/AIDS on 12/31/2017 by Recent Address, Sex at Birth, and Gender, as Reported through 6/30/2018

Adults/Adolescents Living with HIV/AIDS on 12/31/2017								
	Recent Address							
	Maryland		Baltimore City		Baltimore MSA		Washington MSA	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Total	30,566	100.0%	10,453	100.0%	16.494	100.0%	11,672	100.0%
Sex at Birth								
Male	20,179	66.0%	6,757	64.6%	10,689	64.8%	7,664	65.7%
Female	10,387	34.0%	3,696	35.4%	5,805	35.2%	4,008	34.3%
Gender								
Male	19,905	65.1%	6,623	63.4%	10,502	63.7%	7,600	65.1%
Female	10,375	33.9%	3,690	35.3%	5,797	35.1%	4,006	34.3%
Transgender	286	1.0%	140	1.3%	195	1.2%	66	0.6%

Baltimore MSA	Baltimore-Columbia-Towson, Maryland Metropolitan Statistical Area
	Baltimore City
	Anne Arundel County
	Baltimore County
	Carroll County
	Harford County
	Howard County
	Queen Anne's County
DC MSA	Washington, DC Metropolitan Statistical Area
	Calvert County
	Charles County
	Frederick County
	Montgomery County
	Prince George's County
Rural	Maryland counties not in the Baltimore and Washington MSAs
	Allegany County
	Caroline County
	Cecil County
	Dorchester County
	Garrett County
	Kent County
	Saint Mary's County
	Somerset County
	Talbot County
	Washington County
	Wicomico County
	Worcester County
Corrections	Inmates diagnosed while residing in Maryland state correctional facilities
Central	Central Planning Region
	Baltimore City
	Anne Arundel County
	Baltimore County
	Carroll County
	Harford County
	Howard County
Eastern	Eastern Planning Region
	Caroline County
	Cecil County
	Dorchester County
	Kent County
	Queen Anne's County
	Somerset County
	Talbot County
	Wicomico County
	Worcester County
Southern	Southern Planning Region
	Calvert County
	Charles County
	Saint Mary's County
Suburban	Suburban Planning Region
	Montgomery County
	Prince George's County
Western	Western Planning Region
	Allegany County
	Frederick County
	Garrett County
	Washington County

ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
BIC	Baltimore in Conversation
BRFSS	Behavioral Risk Factor Surveillance System
CDC	The US Centers for Disease Control and Prevention
CD4	Cluster of Differentiation 4
COMAR	Code of Maryland Regulations
CRISP	Chesapeake Regional Information System for our Patients
DC	District of Columbia
eHARS	Enhanced HIV/AIDS Reporting System
FOCUS	The Frontlines of Communities in the United States
FQHC	Federally Qualified Health Center
HCV	Hepatitis C Virus
HIP	High Impact Prevention
HIV	Human Immunodeficiency Virus
HRSA	US Health Resources and Services Administration
IDU	Injection Drug Use
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer
MADAP	Maryland AIDS Drug Assistance Program
MDH	The Maryland Department of Health
MSA	Metropolitan Statistical Area
MSM	Men who have Sex with Men
nPEP	Non-occupational Post Exposure Prophylaxis
PRAMS	Pregnancy Risk Assessment Monitoring System
PrEP	Pre-exposure Prophylaxis
STI	Sexually Transmitted Infection
STD	Sexually Transmitted Disease
VL	Viral Load