

DC Jurisdictional HIV Prevention Plan for 2012-2015: Situational Analysis

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Overview

The release of the National HIV/AIDS Strategy (NHAS) in July 2010 presented a framework that the District of Columbia (DC) with its severe and generalized epidemic. The HIV epidemic is severe in seven of the city's eight wards. Ward 8 had the highest rate of persons living with HIV in the District, at 3.1%. Ward 1 had the greatest number of cases living with HIV at the end of 2010.

The opportunity to develop the Enhanced Comprehensive Prevention Plan (ECHPP) presented an excellent occasion for the District of Columbia (DC) through the Department of Health to both strategically re-examine its current efforts and build upon several elements that have been essential in the mounting of an effective response: a) characterization of the epidemic and data driven programming b) strengthened public and private partnerships and c) monitoring and evaluation with a focus on outcomes and d) an enabling environment. The cornerstone of DC's response remains HIV testing as national HIV behavioral surveillance data reveals the number of people unaware of their status greatly exceeds the national average and the burden of disease is great. However, all the strategies that have been set out in this enhanced plan have been selected based on the likelihood of their synergistic contribution to achieving all the goals of the NHAS. Given the inter-relatedness of DC's chosen goals and strategies, the extremely high prevalence of HIV in DC and therefore the urgency of the response, almost every intervention area within the plan mandates some degree of scale-up. A few examples of the inter-related strategies that require scale-up are highlighted below.

- Building the capacity of Ryan white funded providers to improve their patient adherence to appropriate antiretroviral treatment through best practices and behavioral interventions such as prevention with positives, has the ultimate goal of increasing the proportion of patients with viral suppression
- The necessary expansion and sustainability of routine HIV testing in hospital settings and Medicaid managed care network in order to decrease those who are unaware of their status will lead to the identification of more HIV positive individuals. To fully realize the benefit of testing, these individuals must be linked to clinical care within a maximum of three months and supported to remain in care using locally appropriate best practice models.
- The use of surveillance data to effectively target partner services and risk reduction activities to gay and bisexual men and youth based on the high rates of HIV and sexually transmitted disease (STD) co-infection and STDs respectively overlaps with the need to increase medical provider referrals for partner services and is predicated on effective screening for STDs and the integration of integration of data and surveillance systems for HIV, STD, TB and Hepatitis.
- Increasing condom use in through social and sexual networks is a foundation for the expansion of HIV testing in non-medical setting through these same social and sexual networks.
- Partnerships for HIV Testing within mental health and substance abuse sites funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) will lead to improved linkages to HIV care and strengthen linkages to other medical services.
- The maintenance of low rates of incidence of perinatal transmission is requires continued first and third trimester testing. Strategic expansion to include targeted consumer and provider initiatives for safe motherhood and safe pregnancy for HIV positive women of child bearing age overlaps with scale-up of routine testing and condom use.

Epidemiology of HIV/AIDS in DC

Introduction

As of December 31, 2010, an estimated 30,449 persons were living with HIV/AIDS in Washington DC, representing approximately 5% of DC residents. Of these persons, 71% were male and 29% were female. More than half (55%) were currently between the ages of 30-49, 33% were ≥ 50 years and about 1% are < 13 years of age. DC estimates that while 29% of the HIV/AIDS cases were diagnosed at < 30 years of age, only 13% were currently < 30 years of age. People of color account for 82% of HIV/AIDS cases with 73% Black, 6% Hispanic, and 3% other race/ethnicities. The most frequently reported exposure categories among adults and adolescents are male to male sexual (MSM) contact (39%), followed by heterosexual sexual contact (HET) (28%), and injection drug use (IDU) (13%). In addition, 17% of HIV/AIDS cases had an unknown exposure category. Pediatric HIV/AIDS cases accounted for about 1% of the estimated cases living HIV/AIDS in Washington DC (DC).

Estimated Number of People Living with HIV (non-AIDS)

Through December 31, 2010, an estimated 21,341 people were living with HIV (non-AIDS) in DC. The estimates for DC were based on the CDC HIV incidence and prevalence estimates which modified earlier estimates of 40,000 new HIV infections per year to 56,300 per year and included persons unaware of their HIV status¹. Of the estimated cases living with HIV (non-AIDS) in DC, 71% were male and 29% female. More than half (56%) were currently between the ages of 30-49, while 29% were ≥ 50 years of age; 81% were between 20 to 49 years of age at diagnosis and 14% were ≥ 50 years of age at the time of diagnosis. Approximately 80% were people of color with 71% Black, 6% Hispanic and 3% of other races/ethnicities. Whites accounted for 20% of the estimated living HIV cases. The leading mode of transmission was male to male sexual contact (39%), followed by heterosexual contact (29%) and injection drug use (10%). Men who have sex with men and who also injected drugs accounted for 2% of all people living with HIV. About 20% of the estimated living HIV (non-AIDS) cases had no transmission route identified.

People Living With HIV/AIDS (PLWA) and Aware of their Infection

The World Health Organization defines generalized epidemics as those in which the prevalence of HIV is greater than 1% in the overall population. As of December 31, 2010 there were 14,465 residents of the District of Columbia diagnosed and living with HIV. This accounts for approximately 2.7% of the population 13 years of age and older, indicative of a continued generalized epidemic in the District.

District residents over 40 years of age continue to be disproportionately impacted by HIV. Approximately 6.6% of residents 40-49 years of age and 5.5% of residents 50-59 years of age are diagnosed and living with HIV.

Blacks still account for the majority of diagnosed and living HIV cases in the District. At the end of 2010, 4.3% of black residents were living with HIV. The highest burden of disease however is among black males with 6.3% of black males living with HIV in the District. Approximately 1.8% of Hispanic residents and 1.2% of white residents were also living with HIV.

As seen in previous years, men who have sex with men is the leading mode of transmission of all HIV cases diagnosed in the District of Columbia. By the end of 2009, 38.8% of living HIV cases among adults and adolescents were attributed to this mode of transmission. Heterosexual transmission accounted for 27.2% of living cases followed by injection drug use at 16.4%. Mode of transmission differs greatly by race/ethnicity however. While men who have sex with men is the leading mode of transmission among whites (79.0%) and

¹ Hall HI et al. Estimation of HIV incidence in the United States. JAMA 2008 Aug 6;300(5):520-9.

Hispanics (51.8%), heterosexual contact is the leading mode of transmission among blacks (32.4%) living with HIV.

Table 1-A: Living HIV Cases among Adults and Adolescents, by Sex, Race/Ethnicity, - District of Columbia, 2010

	Living HIV Cases as of 12/31/10		DC Population, 2010		Rate per 100,000
	N	%	N	%	
Sex					
Male	10,465	72.3	246,885	46.7	4,238.8
Female	4,000	27.7	281,224	53.3	1,422.4
Total	14,465	100.0	528,109	100.0	2,739.0
Race/Ethnicity					
White	2,390	16.5	194,895	36.9	1,226.3
Black	10,907	75.4	255,758	48.4	4,264.6
Hispanic	833	5.8	45,361	8.6	1,836.4
Other*	335	2.3	32,095	6.1	1,043.8
Total	14,465	100.0	528,109	100.0	2,739.0

Among all adults and adolescents living with HIV infection in 2010, the most commonly reported mode of transmission was men who have sex with men (MSM) (40.5%), followed by heterosexual contact (28.0%), and injection drug use (IDU) at 15.1%. The most disproportionately affected population was Black MSM, with 30.2 of MSM cases.

Mode of transmission differed greatly by race/ethnicity however. Among whites and Hispanics living with an HIV infection, MSM was the most commonly reported mode of transmission at 81.0% and 54.1% of cases respectively. Among blacks the leading mode of transmission was heterosexual contact (33.7%), followed by closely by MSM (30.2%).

Table 1-B: Adults and Adolescents Living with HIV Infection by Race/Ethnicity, Sex, and Mode of Transmission, District of Columbia, 2010 (Total = 14,465)

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	2,285	16%	7,210	50%	703	5%	267	2%	10,465	72%
Female	105	1%	3,697	26%	130	1%	68	0%	4,000	28%
Total	2,390	17%	10,907	75%	833	6%	335	2%	14,465	100%
Mode of Transmission										
MSM	1,935	13%	3,299	23%	451	3%	168	1%	5,853	40%
IDU	58	0%	2,043	14%	56	0%	31	0%	2,188	15%
MSM/IDU	71	0%	380	3%	24	0%	10	0%	485	3%
Heterosexual contact	114	1%	3,672	25%	199	1%	63	0%	4,048	28%

RNI/Unknown	209	1%	1,495	10%	101	1%	63	0%	1,868	13%
Other**	3	0%	18	0%	<3		0	0%	23	0%
Total	2,390	17%	10,907	75%	833	6%	335	2%	14,465	100%
Male										
MSM	1,935	13%	3,299	23%	451	3%	168	1%	5,853	40%
IDU	30	0%	1,186	8%	37	0%	16	0%	1,269	9%
MSM/IDU	71	0%	380	3%	24	0%	10	0%	485	3%
Heterosexual contact	55	0%	1,413	10%	108	1%	21	0%	1,597	11%
RNI/Unknown	191	1%	922	6%	81	1%	52	0%	1,246	9%
Other**	3	0%	10	0%	<3		0	0%	15	0%
Subtotal	2,285	16%	7,210	50%	703	5%	267	2%	10,465	72%
Female										
IDU	28	0%	857	6%	19	0%	15	0%	919	6%
Heterosexual contact	59	0%	2,259	16%	91	1%	42	0%	2,451	17%
RNI/Unknown	18	0%	573	4%	20	0%	11	0%	622	4%
Other**	0	0%	8	0%	0	0%	0	0%	8	0%
Subtotal	105	1%	3,697	26%	130	1%	68	0%	4,000	28%

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and unknown race

**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (health care workers) and perinatal transmission.

The populations with the greatest burden of the epidemic are Black MSM, which represent 23% of the 14,465 adults and adolescents living with HIV, and Black heterosexual women, which represent 16% of PLWH.

Among men, MSM accounted for more than half (55.9%) of living male HIV cases and was the leading mode of transmission among men of all racial and ethnic groups. Heterosexual contact was the second most commonly reported mode of transmission and accounted for 15.3% of living cases. Among women, heterosexual contact accounted for 61.3% of living HIV cases and was the leading mode of transmission among females of all racial/ethnic groups. Injection drug use accounted for almost one-quarter (23.0%) of females living with an HIV infection as well.

Table 2: Living HIV Cases among Adults and Adolescents, by Race/Sex and Current Age, District of Columbia, 2010

	Living HIV Cases as of 12/31/10		DC Population, 2010		Rate per 100,000
	N	%	N	%	
Male					
White	2,285	21.8	96,247	39.0	2,374.1
Black	7,210	68.9	113,649	46.0	6,344.1
Hispanic	703	6.7	23,459	9.5	2,996.7
Other*	267	2.6	13,530	5.5	1,973.4
Total	10,465	100.0	246,885	100.0	4,238.8
White	105	2.6	98,648	35.1	106.4

Black	3,697	92.4	142,109	50.5	2,601.5
Hispanic	130	3.3	21,902	7.8	593.6
Other*	68	1.7	18,565	6.6	366.3
Total	4,000	100.0	281,224	100.0	1,422.4
13-19	53	0.4	50,106	9.5	105.8
20-29	1,271	8.8	133,759	25.3	950.2
30-39	2,656	18.4	98,021	18.6	2,709.6
40-49	5,033	34.8	76,273	14.4	6,598.7
50-59	3,951	27.3	71,438	13.5	5,530.7
≥60	1,501	10.4	98,512	18.7	1,523.7
Total	14,465	100.0	528,109	100.0	2,739.0

New AIDS Cases Reported in 2009-2010

For the two-year period of time between January 1, 2009 and December 31, 2010, a total of 988 new AIDS cases were diagnosed and reported, representing an average of 41 new AIDS diagnoses monthly. The District reported a newly diagnosed AIDS case rate of 90.3 per 100,000 people in 2010. This is approximately 8 times that of the national rate of 10.8 per 100,000 people. Among those diagnosed with AIDS in 2009 and 2010, two-thirds (67%) of the AIDS cases were male; 30% aged >50 years and 53% between 30 and 49 years of age; 83% were blacks, 9% Whites, 5% Hispanics, and 3% of other races. Among adult and adolescent new AIDS cases, 30% were attributed to male-to-male sexual contact, 34% to heterosexual contact, and 8% to injection drug use.

HIV Co-Morbidity: HIV/AIDS is a complex, multi-system illness that is heavily influenced by other life domains, such as general health, economic and insurance status. When compounded with other issues, such as homelessness or risk of homelessness, severe mental illness, sexually transmitted infections (STIs), and adherence to medication regimes for HIV/AIDS, this can become overwhelming for a person to navigate alone.

Table 3: New HIV Diagnoses Co-infected with Gonorrhea, Chlamydia, and Syphilis at the Time of HIV Diagnosis, District of Columbia, 2006-2010

Gonorrhea and HIV Co-infection	Chlamydia and HIV Co-infection		Syphilis HIV Co-infections					
	N	%	N	%	N	%		
Sex								
Male	101	80.2%	Male	85	64.9%	Male	58	96.7%
Female	25	19.8%	Female	46	35.1%	Female	<3	--
Total	126	100.0		131	100.0		60	100.0%
Race								
White	22	17.5%	White	20	15.3%	White	13	21.7%
Black	97	77.0%	Black	100	76.3%	Black	39	65.0%
Hispanic	6	4.8%	Hispanic	6	4.6%	Hispanic	7	11.7%
Other	<3	0.8%	Other	5	3.8%	Other	<3	1.7%
Total	126	100.0%		131	100.0%		60	100.0%
Age at HIV Diagnosis								

13-19	16	12.7%	13-19	19	14.5%	13-19	6	10.0%
20-29	51	40.5%	20-29	54	41.2%	20-29	23	38.3%
30-39	39	31.0%	30-39	31	23.7%	30-39	18	30.0%
40-49	18	14.3%	40-49	21	16.0%	40-49	10	16.7%
50-59	<3	1.6%	50-59	6	4.6%	50-59	3	5.0%
Total	126	100.0%		131	100.0%		326	100.0%

- Approximately 80% of newly diagnosed HIV cases co-infected with gonorrhea were male, 77% were black, and almost three-quarters (72%) were between 20 and 39 years of age at HIV diagnosis.
- Similar to HIV/gonorrhea co-infections, 76% of newly diagnosed HIV cases co-infected with chlamydia were black and almost two-thirds (65%) were between 20 and 39 years of age at HIV diagnosis. However a greater proportion of HIV/Chlamydia co-infections were female (35% vs. 20% of HIV/Gonorrhea co-infections).
- Almost all (97%) of the newly diagnosed HIV cases co-infected with syphilis were male, approximately two-thirds (65%) were black, and 68% were between 20 and 39 years of age at HIV diagnosis.

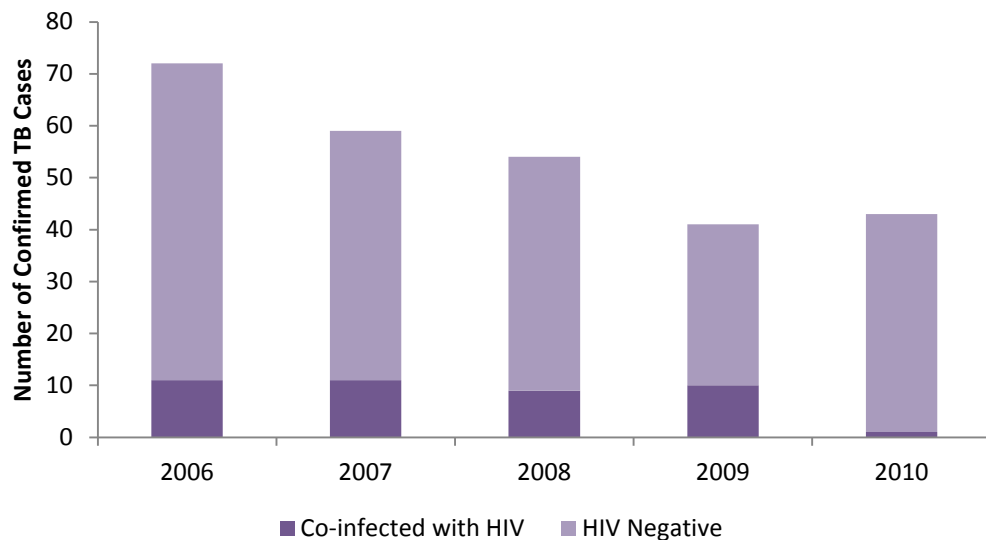
Table 4: New HIV Diagnoses Co-infected with Chronic Hepatitis B and Chronic Hepatitis C at the Time of HIV Diagnosis, District of Columbia, 2006-2010

Hepatitis B and HIV Co-infection			Hepatitis C and HIV Co-infection		
	N	%		N	%
Sex					
Male	126	81.8%	Male	267	70.5%
Female	28	18.2%	Female	112	29.6%
Total	154	100.0%	Total	379	100.0%
Race/Ethnicity					
White	23	14.9%	White	22	5.8%
Black	123	79.9%	Black	340	89.7%
Hispanic	5	3.3%	Hispanic	12	3.2%
Other*	3	2.0%	Other*	5	1.3%
Total	154	100.0%	Total	379	100.0%
Age at HIV Diagnosis					
13-19	1	0.7%	13-19	1	0.3%
20-29	23	14.9%	20-29	19	5.0%
30-39	47	30.5%	30-39	31	8.2%
40-49	49	31.8%	40-49	131	34.6%
50-59	26	16.9%	50-59	164	43.3%
≥60	8	5.2%	≥60	33	8.7%
Total	154	100.0%	Total	379	100.0%
Mode of Transmission					
MSM	70	45.5%	MSM	77	20.3%
IDU	14	9.1%	IDU	107	28.2%
MSM/IDU	4	2.6%	MSM/IDU	14	3.7%
Heterosexual Contact	40	26.0%	Heterosexual Contact	112	29.6%
RNI	26	16.9%	RNI	69	18.2%

Total	154	100.0%	Total	379	100.0%
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- Approximately 82% of newly diagnosed HIV cases co-infected with chronic hepatitis B were male, 80% were black, and the leading mode of transmission was male to male sexual contact at 46%.
- Approximately 71% of newly diagnosed HIV cases co-infected with chronic hepatitis C were male, 90% were black and the leading modes of transmission were heterosexual contact (30%) and injection drug use (28%).

Figure 1: Tuberculosis Co-infected with HIV among Diagnosed and Reported Tuberculosis Cases by Year, District of Columbia, 2006-2010



- Overall, 15.6% of TB cases diagnosed between 2006 and 2010 were also infected with HIV. The number of TB/HIV co-infections decreased by 90.9% from 2006 to 2010 (from 11 cases to 1 case).

Unmet Need

DC calculates unmet need to estimate the number of people living with HIV/AIDS who are not in routine care. Unmet need is defined as persons who are aware of their HIV infection but are not receiving primary care. DC estimates unmet need by linking four databases: Medicaid, AIDS Drug Assistance Program (ADAP), Ryan White HIV/AIDS Program Services Report (RSR), and the enhanced HIV/AIDS Reporting System (eHARS). Reported HIV/AIDS cases in eHARS are matched with the other databases and analyzed using the criteria for evidence of a primary care visit, namely evidence of antiretroviral treatment or a CD4 or viral load measurement. Potential limitations of this unmet need calculation may result from incomplete laboratory data, clients moving out of the jurisdiction, and unknown deceased cases. However our comprehensive integration and linkage of multiple datasets are likely to generate more accurate information compared with using a single dataset.

In 2010, approximately 42% of HIV/AIDS cases in the District of Columbia have an unmet need for primary medical care while 58% of PLWH/A have been found to have evidence that their primary medical need was met.

Of the HIV cases (non-AIDS cases, aware), 49% had unmet needs for care services. Among AIDS cases, more than one-third (36%) were estimated to have an unmet for primary medical care.

The estimates of unmet need for HIV/AIDS cases in 2010 (42%) remains at similar level compared to 2009 (42%). More recently, the scope of unmet need has become even more complicated when by the current economic climate of the nation. There have been dramatic decreases in state budgets, workforce reductions at health and social service institutions, loss of employment and thus insurance coupled with increased demand for services by persons in need. Physicians and case managers spend more time trying to assist people with these issues that must be addressed if treatment is to be successful. Often there is no compensation for additional services needed to provide quality care for those struggling with multiple diagnoses and stressful socioeconomic circumstances. PLWHA must contend with these issues, as it becomes difficult for them to access or maintain health insurance, attain economic self-sufficiency and stable housing and adhere to complex medical care and medication. PLWHA in DC have experienced barriers to care, despite reallocations of CARE Act funds. The impact of co-morbidities of individuals living with HIV/AIDS leads to increased complexity of care and also increased cost of care.

Table 5: Met and Unmet Need among HIV/AIDS Cases in Washington DC, 2010

Need assessment	HIV cases		AIDS cases		Total	
	N	%	N	%	N	%
Met	4,191	51.3	5,878	64.5	10,069	58.3
Unmet	3,973	48.7	3,230	35.5	7,203	41.7
Total	8,164	100	9,108	100	17,272	100

Because many HIV infected persons are not identified early in the stage of their disease and are not provided care until late in the course of their infection, late stage diagnosis results in an even higher cost of care. In 2006, Schackman et al, estimated the monthly cost of people living with HIV from the time of beginning appropriate care (adults who initiate antiretroviral therapy at CD4 counts <350 cells/mm³) until death to be \$2,100 on average or \$25,200 per year². The projected life expectancy of individuals, if they remain in optimal HIV care is 24.2 years and the lifetime cost is \$618,900 per person².

Some form of health coverage covers at least 90% of DC residents. DC as an early implementer of the Patient Protection and Affordable Care Act (PPACA) and will have nearly universal healthcare by the end of 2014. Due to the scope of this healthcare safety net, it's critical that DC adopt a comprehensive HIV prevention strategy that utilizes biomedical prevention interventions, uses the healthcare system as a point of service delivery for HIV prevention strategies and enhanced program collaboration and service integration in instances that will maximize health outcomes.

Access to Health Care and Services:

As a result of the 2006 settlement of tobacco litigation, the District of Columbia had more than \$200 million available to invest in the health of the city's residents. The Health Care Task Force, convened in 2006, contracted with the RAND Corporation to study health and the health care delivery system in the District. The goals of RAND's evaluation are were to: **1)** Conduct a comprehensive health needs assessment for Washington D.C.; **2)** Assess the quality and accessibility of the District's health care delivery system for individuals with

² Schackman BR et al. The lifetime cost of current human immunodeficiency virus care in the United States. Med Care. 2006 Nov;44(11):990-7.

urgent or emergent medical needs; and, **3)** Use information from those assessments to identify and assess various policy options for improving the health care delivery system. The RAND Report on Health found:

- District-wide, mortality rates from heart disease and cancer were higher than those from other causes, although cancer and HIV/AIDS contribute the most to rates of premature mortality.
- While the majority of individuals with chronic conditions who are enrolled by Medicaid or the Alliance have at least one visit to a primary care provider, few see a specialist with expertise in treating their condition.
- Between about half and three-fourths of people enrolled in healthcare programs use the ED at least once. Rates of inpatient hospital use among those with selected chronic conditions (such as heart disease, HIV/AIDS, asthma or diabetes) ranged from 23 to 34 percent.
- Rates of health insurance coverage among adults were higher in the District than in comparable cities, probably largely as a result of the Alliance.

In total, nearly \$2 billion was spent on District health care safety net services in fiscal year 2007 (FY07), with Medicaid accounting for \$1.4 billion, Alliance for \$130 million, federal Health Resources and Services Administration (HRSA) grants for \$69 million, and Medicare disproportionate share hospital payments (DSH) for \$59 million.³

At least 90% of DC residents have access to either public or private health coverage. The District as an early implementer of the Patient Protection and Affordable Care Act (PPACA) will have nearly universal healthcare by the end of 2014. DC Healthcare Alliance covers DC Residents not eligible for Medicare and Medicaid and who are 200% of federal poverty level. The DC ADAP program provides free or discounted HIV medication to people who are at 500% of federal poverty level.

These factors along with continued expansion of healthcare to those at greatest risk for HIV align with the District's proposed ECHPP strategies as well as the adoption of biomedical interventions that promote health outcomes and results. DC plans to maximize the scope and scale of the Healthcare coverage by continuing to expand policies and programs that use the existing healthcare infrastructure as a 'point of delivery' for comprehensive HIV prevention, care and treatment services. Through enhanced program collaboration and service integration in instances that will maximize health outcomes, scale up of all ECHPP interventions can be done in a way that is cost effective, effective and impactful of changing health outcomes of people living with HIV.

Routine, opt-out screening for HIV in clinical settings

In the DC the HIV case rate is nearly 10 times the U.S. rate and higher than comparable US cities such as Baltimore, Philadelphia, New York City, Detroit, and Chicago (1,2). Washington DC, (DC) has the highest HIV/AIDS case rate in the U.S. at (3,278 cases per 100,000) or 3.2% of DC residents are diagnosed and living with HIV. Although MSM is the leading mode of transmission among people living with AIDS (38.8%), heterosexual sex is the leading mode of transmission for new HIV diagnoses (37.4%) and new AIDS diagnoses (31.8%). Over 44% of people living with HIV disease were late testers in 2009 compared with 32% nationally. Since the expansion of publically supported HIV screening, the median CD4 count at the time of initial HIV

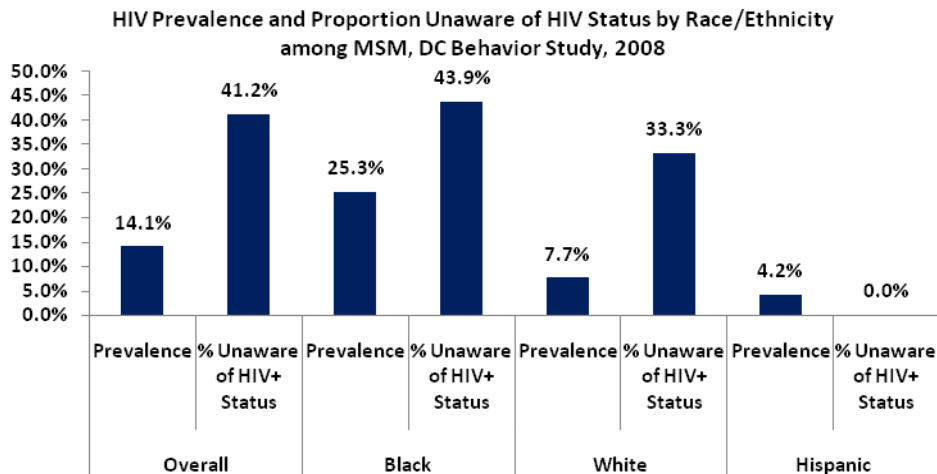
³http://www.rand.org/content/dam/rand/pubs/working_papers/2008/RAND_WR579.pdf

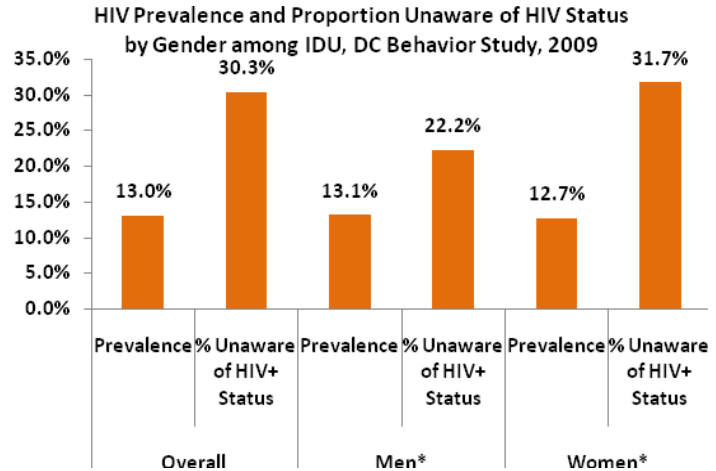
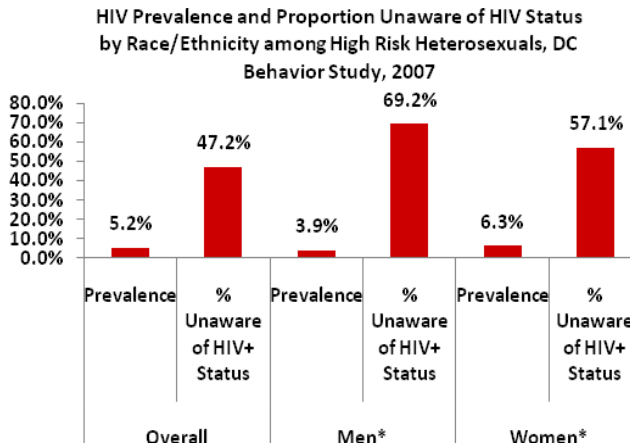
diagnosis was 361 in 2009 compared to 266 in 2005, an indication of people being diagnosed earlier in their course of disease.

Estimated People Living with HIV/AIDS by gender, District of Columbia-2009

	Estimated HIV/AIDS Cases, through 2009	Living HIV/AIDS Cases, through 2009	Unaware of their HIV/AIDS Status
Men	21,229	12,051	9,178
Women	8,671	4,670	4001
Total	29,900	16,721	13,179

Undiagnosed Estimate: Prior to November 2006, HIV cases were reported using a code-based system recorded in a system separated from the AIDS case reporting system. DC’s name based HIV surveillance system will not be completely mature until 2012 Through December 31, 2009, an estimated 29,900 people were living with HIV/AIDS in DC. These estimates for DC were based on the recently released CDC HIV incidence and prevalence estimates modifying earlier estimates of 56,000 new HIV infections per year. Data from National HIV Behavioral Surveillance (NHBS), indicate that the prevalence of HIV disease is higher among high risk populations. Among MSM, IDU and heterosexuals at high risk for HIV, HIV prevalence was 14.1%, 13.0% and 5.2%, respectively. The rate of undiagnosed disease was much higher. Among people who were diagnosed positive in the study, 41.2% of MSM, 30.3% of IDU and 47.2% of Heterosexuals were unaware of their HIV status prior to study participation (Figure 2a-2c).





* A large proportion (92.3%-96.4%) of NHBS-HET cycle participants were black, therefore stratification by race/ethnicity is not presented

In 2010, the Office of National AIDS Policy released the National HIV/AIDS Strategy (NHAS). The main elements of the NHAS are to: reduce new HIV infections, increase access to care and improve health outcomes for people living with HIV and reduce HIV-related disparities and health inequities while achieving a more coordinated national response to the HIV epidemic. As part of the element to reduce new HIV infections by 2015 the goals are to:

- Lower the annual number of new infections by 25%
- Reduce the HIV transmission rate by 30%
- Increase from 79% to 90% the percentage of people living with HIV who know their serostatus

DC has undertaken activities in support of this element of the NHAS this in its continued and sustained expansion of routine testing. In advance of the CDC September 2006 recommendations, HAHSTA began implementing routine, voluntary HIV screening in health-care settings in June 2006. HAHSTA engaged multiple community-based and clinical providers throughout DC to perform rapid HIV screening, launched extensive social marketing campaigns to educate residents and providers about routine HIV testing, and trained providers to facilitate immediate linkage to care among those testing HIV-positive (5). To implement the CDC recommendations to scale, HAHSTA has since implemented a comprehensive strategy that includes capacity building of providers, procurement and distribution of oral HIV rapid test kits, training of providers to facilitate immediate linkage to care among those testing HIV-positive, and the use of both of federal and local investments to expand implementation. DC has outlined a five pronged collaborative approach to effective scale up of routine opt-out HIV screening in medical settings:

I. **Sustaining an enabling environment:** HAHSTA conducted an extensive legislative and policy review to determine the extent of any structural barriers to implementation of an opt out HIV screening policy. Based on this assessment, HAHSTA developed and implemented specific goals addressing real and perceived barriers to testing.

- **Consent and pre-test counseling:** It was determined through analysis of existing policies, regulations and rules that there is no language in public health statutes requiring separate written informed consent for routine opt out HIV screening. With the scale up of opt out routine HIV screening in 2006,

HAHSTA created internal and external policies for publically supported HIV screening in line with the CDC recommendation regarding routine screening in clinical settings eliminating the need for behavioral risk assessments and pre-test counseling.

- **Reimbursement for opt out routine testing in EDs:** In 2008, DC passed legislation mandating reimbursement for non-risk based HIV screening in the emergency department. This year HAHSTA will continue to assess challenges EDs and Hospital systems experience billing for routine opt out HIV screening so that HAHSTA will move from testing provision to testing promotion.
- **Names Based HIV Reporting:** In 2006, DC transitioned to names based HIV reporting. In supporting policy, DC mandated the reporting of all CD4 counts and viral loads, strengthening the Districts ability to monitor and evaluate new infections, linkage to care, retention, viral suppression and community viral load.

II. Multi-Sectoral Partnerships for implementation: Partnerships continue to be a critical component of ensuring scalability of evidenced based interventions. In adopting CDC recommendations for opt out routine screening, DC determined it was necessary to redevelop, re-define and re-direct existing relationships with traditional and nontraditional testing partners and build new collaborations across the public and private sector. Developing scalable interventions required assessing the current needs and redirecting existing resources to maximize impact.

Strengthening public partnerships: In 2006, DC began implementation of the first jurisdictional scale up of the CDC’s Revised Recommendations for HIV Testing. Expanding on the guidelines for high HIV morbidity states to expand voluntary, opt out HIV testing in health-care settings for all persons aged 13-64, HAHSTA expanded the scope of testing services through expansion of testing partners, specifically increasing testing to clinical settings, where volume and positivity rates have been higher. In 2009, HAHSTA funded 25 funded medical providers to implement opt-out HIV testing, including medical centers, hospital emergency departments, HAHSTA’s TB and STD clinics, and community health centers, an increase since 2007. These medical sites include seven of out eight DC emergency departments and an 80,000-client primary care network.

HIV Testing in District of Columbia, 2008-2010, Clinical and Non Clinical and Non-Clinical Settings

	2008	2009	2010
# of facilities funded for HIV testing	32	57	48
Clinical	17	25	21
Non Clinical	15	32	27
# of publically funded HIV tests	72,864	92,748	110,358
Clinical partners	63,610	79,114	90,494
Non Clinical Partners	9,254	13,634	19,864
# of preliminary Positives	938	904	928
Clinical	736	703	584
Non Clinical Partners	203	201	344
Positivity Rate	1.3	1.0	0.8
Clinical	1.2	0.9	0.6
Non Clinical Partners	2.2	1.5	1.7

Automatic Testing in DC Department of Corrections: The Department of Justice support of the DC Department of Corrections (DCDOC) implementation of HIV testing within the DC jail has become a nationwide model for automatic testing within a correctional system. Recognized as the 2010 Exemplary Offender Program by the American Correctional Association (ACA), the DCDOC has implemented and integrated routine, opt-out HIV testing (utilizing oral HIV rapid testing supplied by HAHSTA) into the health services intake process since June 2006. The DCDOC Automatic HIV Testing Program was in place three years before the CDC issued its 2009 revised guidelines for implementation of routine, opt-out testing in corrections. Since 2006, the DCDOC has performed an estimated 40,000 tests; over one-third of those reported by DOH as tested citywide and establishing the DCDOC as the largest single testing site in DC. DCDOC is testing more than 87% of the offender population while incarcerated with more than 33% of those tested learning their HIV status for the first time. During intake, inmates undergo a menu of screenings including HIV testing and a comprehensive physical examination. Confirmation blood tests are sent for ELISA and Western Blot. Inmates who refuse tests are offered the HIV test most usually the next day before the tester declares a final refusal. DCDOC also offer HIV rapid tests at sick call and upon request. These multiple opportunities capture some additional inmates who initially refuse. Those inmates incarcerated 90 days or more are also offered testing upon release. DCDOC Electronic Medical Record (EMR) data confirm an HIV positive prevalence rate of 6% based upon an Average Daily Population of 3,000 offenders with about 50% receiving HIV medication as a result of their clinical status.

Routine HIV Opt out testing within the STD clinic: In July 2009, the SE STD Clinic, the only publicly funded STD clinic in Washington, DC, began providing opt-out HIV testing. Full implementation began in October 2009. All clients who were not previously known to be HIV infected and had not been tested in the previous 30 days were screened using the OraQuick ADVANCE Rapid HIV-1/2 Antibody Test. Disease Intervention Specialists (DIS) ceased pre-test counseling and written consent for HIV testing was incorporated into the general consent form. From July 2008 through June 2009, 9,537 unique clients visited the SE STD Clinic, of which 5,972 (62.6%) were screened for HIV, 2,558 (26.8%) were deemed ineligible, and 1,007 (10.6%) refused. Of those tested, 48 (0.8%) were positive – 35 (72.9%) were new infections, 11 (22.9%) were previous positives, and 2 (4.2%) were false positives. From July 2009 through June 2010, 12,154 unique clients visited the SE STD Clinic, of which 9,702 (79.8%) were screened for HIV, 2,039 (16.8%) were deemed ineligible, and 413 (3.4%) refused. Of those ineligible, 1,832 (89.8%) had been tested in the previous 30 days, 197 (9.7%) were previous positives, and 10 (0.5%) were listed as “Other.” Of those tested, 89 (0.9%) were positive – 59 (66.3%) were new infections, 25 (28.1%) were previous positives, 2 (2.2%) were false positives, and 3 (3.4%) were “Out of Jurisdiction.” “Routinization” of HIV screening among this high-risk population increased the percentage of clients tested, decreased the percentage of clients that were ineligible or refused screening, and increased the number of new infections identified (0.37% versus 0.49%, respectively). From July 2009 through June 2010, 3730 more HIV tests were conducted (compared to July 2008 through June 2009) identifying 14 additional new HIV infections.

TLC Plus: TLC Plus is a critical component of enhancing opt out HIV screening in clinical settings in DC. It is focused on expansion from ED testing to inpatient screening and provides additional resources and technical expertise to DC’s testing partners. TLC plus also enhances the existing infrastructure by using the PEMS-1 CTR data and the HIV Case Surveillance system to monitor and evaluate effectiveness of the study components. The main objective of the study is to determine the feasibility of a community focused enhanced test and link-to-care strategy in the United States. The study includes feasibility objectives for the Expanded HIV Testing, Linkage-to-Care and Viral Suppression components, and effectiveness objectives for the Linkage-to-Care, Viral Suppression and Prevention for Positive components. To further assess best practices associated

with expand screening and linkage to care, DC is one of two sites in the country for the HPTN 065 the Testing Linkage to Care Plus (TLC+) study that is examining the feasibility of models to expand screening and linkage to care. The main purpose of this study is to evaluate the feasibility of an enhanced community-level test, link to care and treat strategy in the U.S. The study includes the following components: 1) Expanded HIV Testing, 2) Linkage-to-Care, 3) Viral Suppression, 4) Prevention for Positives, 5) Patient and Provider Surveys. The Expanded HIV Testing component involves social mobilization; with targeted messaging to promote testing, and implementation of the universal offer of HIV testing in emergency departments (EDs) and hospital inpatient admissions. DC is to expand upon existing relationships and establish new partnerships with DC Office of Health Care Finance (DHCF). HAHSTA currently collaborates with DHCF to monitor and evaluate delivery of HIV care and treatment. In order to enhance HIV prevention, HAHSTA will establish relationships to determine steps required implement routine Opt-Out HIV testing within Managed Care Organizations under contract with DC Alliance, including policies related to reimbursing for the services.

In addition, HAHSTA will focus on implementing routine HIV screening within clinical sites that serve injection drugs users (IDU) and sites providing mental health services. Data from the NHBS indicate that the prevalence of HIV disease is higher among certain high risk populations. Among IDU, HIV prevalence was 14.1%. The rate of undiagnosed disease was much higher. Among people who were diagnosed positive in the NHBS, 30.3% of IDU were unaware of their HIV status prior to study participation. People with chronic mental illness, including those with substance use disorders, are at increased risk of HIV infection compared with the general population. There is little research on the risk behaviors, willingness to be tested for HIV, and HIV prevalence among persons with chronic mental illness. In addition, the interrelations among diagnosis of HIV infection, compliance with medical care, subsequent risk behavior, and the course of mental illness have not been well described. Mental health clinics are an important setting for HIV rapid testing and promoting prevention efforts against the transmission of HIV infection.

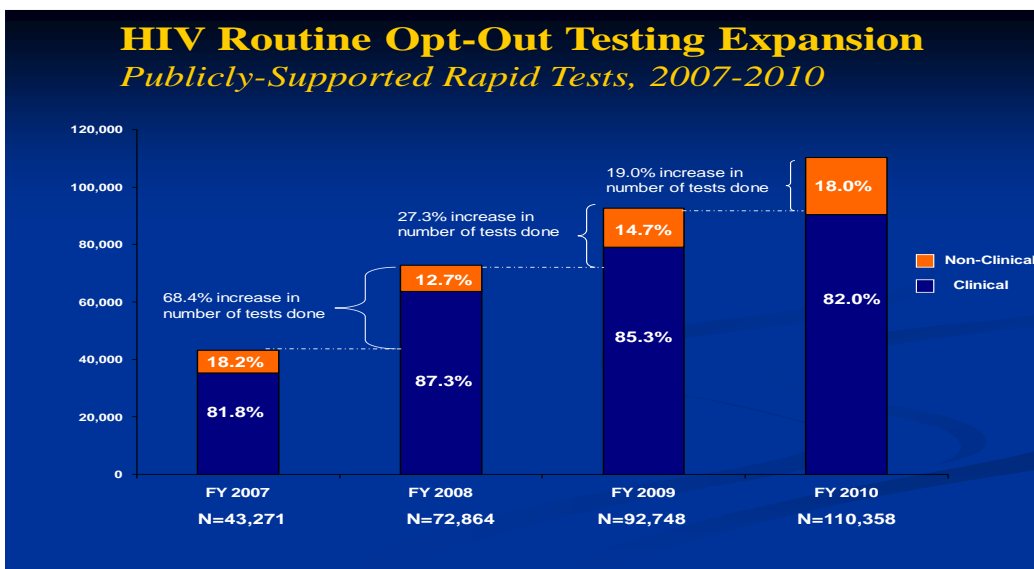
- ***Developing private partnerships:*** Promoting HIV screening policies and programs is critical to scaling up population-based policies and programs and DC has developed intensive testing promotion targeted to health care providers and health consumers. However, to extend the reach of these efforts beyond publically supported providers, DC partnered with the domestic arm of the Global Business Coalition on HIV/AIDS, Malaria and TB (GBC) and a major pharmaceutical company to expand the number of providers who were willing to scale up opt out routine screening in their practices. Using a “direct-to-consumer” pharma model to disseminate toolkits to providers, DC expanded the number and type of clinical providers providing HIV screening.
- ***Academic Detailing:*** With its success in increasing routine HIV screening in institutional clinical settings – primary care centers and hospital emergency departments – DC has identified a gap with outreach and promotion of routine screening in private practices. In 2009-2010, DC developed a partnership with GBC Health and Pfizer to engage Pfizer sales representatives to promote HIV screening policies in a cohort of 200 private practices. DC developed a toolkit of materials and provided training to the representatives. The visits were well-received, but little data was collected. DC and GBC Health partnered on a survey of more than 100 private physicians and found mixed knowledge on HIV in DC, acceptance of screening, but inconsistent application in their practices. DC has moved to the next level with an academic detailing project. HAHSTA has contracted with The Alosa Foundation for a robust detailing program to private physicians. The program plans to identify approximately 600 practices and make multiple visits. HAHSTA and Alosa are developing a coordinated evaluation plan with quantitative and qualitative measures. One element will be to track either from the practices directly or through laboratory data, the number of tests performed. The program will run 18 months starting in October 2012.

III. ***Social Mobilization:*** In June 2006, DC launched “Come Together Get Screened for HIV.” This campaign promoted testing among residents 14-84 and recruited new clinical providers and nontraditional testing organizations as partners in ensuring every District resident was aware of their HIV status. Increasing the number and diversity providers offering HIV as a part of their routine standard of care is the cornerstone of addressing structural capacity, normalizing HIV screening and as a by-product reducing stigma associated with HIV prevention, care and treatment. To further this approach, in 2009, DC launched a new social marketing program entitled “DC Takes on HIV”. This ‘umbrella message’ affirms the major programmatic goals of HAHSTA in directed actions for the general public. “DC takes on HIV” uses different media platforms to promote routine HIV testing, linkage to care and treatment, large-scale prevention behavioral impact and public-private partnerships. The first campaign was to promote routine HIV testing in clinical settings with components directed at consumers and providers. The consumer component called “Ask for the Test” featured DC residents and included public transportation, billboards, radio, television, Internet and newspaper advertising. The provider component - “We Offer the Test” - included a handbook on implementing routine testing, a pocket card, test result cards for patients, opt-out card (this card informs patients that they chose not to take a vital health test), poster and an appointment card for an HIV specialist. The campaign features a dedicated web site www.DCTakesOnHIV.com, text messaging to locate free HIV testing locations, and advertising in multiple media formats. Through its partnership with the Global Business Coalition on HIV/AIDS, Malaria and TB (GBC) and Pfizer, DC launched an “Offer the Test” pilot project where Pfizer representatives promoted routine HIV testing on sales visits to primary care physicians. GBC and HAHSTA, along with the DC Medical Society, conducted a survey of DC physicians on their knowledge of HIV in DC. The results of that survey will be published shortly. Also, in tandem with the GBC, HAHSTA is working with George Washington University Medical School to include new curriculum components on HIV competency. GBC and HAHSTA are starting a similar project with Georgetown University Medical School. HAHSTA, in conjunction with TLC Plus, launched a new campaign promoting twice annual testing for MSM. The campaign is entitled: “Do It in the Sun – Do It in the Snow”. HAHSTA has maintained its “Ask for the Test” campaign with some new features. HAHSTA partnered with Radio One and held a free concert for persons who received a HIV test. HAHSTA’s social marketing contractor Octane provided tickets to community partners and the testing campaign was promoted on Radio One stations. The concert was held on December 21, 2011 with approximately 1,000 persons who were tested in attendance. Based on the late testing rates of older adults, HAHSTA is now featuring older adults in its “Ask for the Test” ads and outreach materials.

IV. ***Transition to self-sustaining models:*** DC supports the development of self-sustaining models for testing that build upon the existing care system. DC’s latest funding opportunity announcement encouraged providers to describe transition plans that maximize revenue generation and develop alternative models that reflect more cost efficient ways of providing testing such as the use of traditional testing when appropriate (inclusive of stat labs which can yield batch results within 1 hour), match rapid tests costs in order to support scale up and reinvesting revenues generated. In a 2007 report on the health of DC residents, Rand found that over 91% of DC residents are covered by either public insurance, including DC Alliance, Medicaid or Medicare or private insurance. DC is an early implementer of the Affordable Care Act which, coupled with private insurance, could expand healthcare coverage to over 95% of DC residents.

V. ***Monitoring and Evaluating Results:*** (surveillance, M and E, NHBS, Maven) Despite efforts to increase provider awareness and practice of routinely offering HIV testing, behavioral survey and testing data suggest missed opportunities for routine testing in medical settings were frequent, with nearly 75% of newly diagnosed HIV-positive persons reporting having seen a healthcare provider in the past twelve months without having been tested for HIV. (NHBS-Het Survey 2009) With this data, HAHSTA intensified efforts

to mobilize the medical establishment. HAHSTA hosted roundtables, wrote newsletters, lectured and presented to the DC Board of Medicine, American College of Physicians and the DC Medical Society. The number of publicly funded HIV tests in DC (in both medical and non-medical settings) increased nearly 3 times from 2007 (43,271 tests) to 2010 (110,358 tests). Over the three-year period, 77 % of the tests were performed among blacks. In 2009, of the 92,748 publically funded HIV tests performed, 85.3% (79,093) of these tests were completed in medical settings. Over half (56.7%) of the tests in medical settings were among men, followed by 43.0% among women and 0.3% among male-to-female (MTF) transgender persons. Of tests performed in medical settings, 77.2% were performed on Blacks, 10.8% on Whites, 8.1% on Hispanics, 3.9% on other race/ethnicities. Among the 79,093 tests performed in medical settings, 0.9% (703) tests were HIV-positive.



Clinical Outcomes among People living with HIV

	2008	2009	2010 (Preliminary)**
# of Confirmed HIV/AIDS Cases	16,513	16,721	17,632
# of AIDS Diagnosis	460	469	430
Median CD4 Count at Diagnosis	339	361	380
% Late Testers*	24.2%	44.0%	47.6%
% of "Non-Progressors" to AIDS	69.2%	71.7%	77.0%

*Late testing is defined as an AIDS diagnosis less than 12 months after initial HIV diagnosis

**2010 Preliminary data are subject to reporting delays that may increase or decrease the numbers.

HIV Testing Knowledge, Attitudes and Behaviors of HIV Risk Negatives

	2007	2008	2009
NHBS Testing Questions	HET-1	MSM-2	IDU-2

	%	%	%
% Know their own status	60.9	66.4	67.4
% Know their partners HIV Status	50.3	64.1	72.3
% Offered HIV Test at last Healthcare visit	50.6	57.6	60.3
BRFSS			
HIV test in the last year	54.2		51.1

Cost

In order to support this degree of scale up, both local and federal investments have been necessary. Additionally, DC has partnered with private pharmaceutical companies to expand targeted testing efforts. Below is an assessment of where DC is current allocating federal, local and private dollars for routine screening in clinical settings:

Investment in Opt Out Routine HIV Screening

	2008		2009		2010	
	Amount (\$)	% (+/-)	Amount (\$)	% (+/-)	Amount (\$)	% (+/-)
Local Resources						
Test Kits/Social Marketing	\$700,000	-	\$875,000	20%	\$933,000	6%
Federal Resources						
Expanded HIV Testing (CDC)	\$300,000	-	\$300,000	0%	\$300,000	0%
HPTN 065/Research	-	-	-		\$750,000	100%
Private Resources						

Sources of Data:

Program Evaluation Monitoring System (PEMS) data

HIV Case Surveillance Data (eHARS)

National HIV Behavioral Surveillance Data

Bureau of Grants Management and Fiscal Control

http://www.hptn.org/research_studies/hptn065.asp

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Magnus M, Kuo I, Shelley K, et al. Risk factors driving the emergence of a generalized heterosexual HIV epidemic in Washington, District of Columbia networks at risk. *AIDS* 2009;23:1277--84.

CDC. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR* 2006;55(No. RR-14).

HIV testing in non-clinical settings to identify undiagnosed HIV infection

DC has a generalized, high prevalence HIV epidemic but certain populations are more severely affected. HIV surveillance data show that MSM and IDU account for nearly half (47.1%) of new HIV/AIDS diagnoses. NHBS data indicate prevalence rates among MSM (14.1%), MSM of color (20.1%) and IDU (13.0%) higher than overall population prevalence rates. Testing within non-clinical settings is the current strategy that HAHSTA has adopted to reach these high-risk sub-populations that are often not engaged in the traditional healthcare system. Although DC has made routine, opt out screening in medical settings the cornerstone of the HIV response, targeted testing is an invaluable component of DC's strategy to decrease the number of people who are unaware of their HIV status. HIV testing in non-clinical settings is critical to ensure high-risk negatives are aware of their HIV status and key to identifying those at greatest risk for HIV infection.

Some testing models have shown that targeted testing of those with HIV risk behaviors either through venue based testing, social network or sexual network testing could identify more than three times as many people with HIV than routine testing and could prevent four times as many new HIV infections. Currently, non-clinical community based organizations (CBOs) perform about 15% of HIV testing in DC. Although more positives are identified through opt out routine screening in medical settings, positivity rates in non-clinical settings are higher among some of the populations outlined in the NHAS as those at highest risk of HIV infection, Gay and Bisexual men (4.1%), women (1.3%), Latinos and Latinas (1.4%) and IDU (6.0%). HIV testing in non-clinical settings also has high positivity rates among transgender persons and youth. Of the 247,519 tests performed between 2008 and 2010, 17.7% (43,850) were in non-medical settings with 2,123 of tests in MSM, 350 in IDU and 195 among MTF transgender persons.

Positivity by Demographics, District of Columbia, 2008-2010

	Clinical Setting				Non Clinical Setting			
	Test Result		Positivity %	Total Tests	Test Result		Positivity %	Total Tests
	Negative	Positive			Negative	Positive		
TOTAL	192,043	1641	0.8%	203,669	42,824	836	1.9%	43,850
Ethnicity								
Hispanic/Latino	18,991	116	0.6%	19,551	2,339	33	1.4%	2,375
Non-Hispanic	156,783	1402	0.8%	165,141	36,969	694	1.8%	37,766
Unknown	6,801	53	0.8%	6,886	1,602	70	4.2%	1,675
Race								
AI/AN/Asian/NH/PI/Multi-Race	8,218	58	0.5%	10,758	1,891	60	3.1%	1,958
African American	149,215	1361	0.9%	155,102	36,246	698	1.9%	37,056
NH/PI								
White	18,562	125	0.6%	21,277	2,895	45	1.5%	2,943
Unknown/Declined	16,048	97	0.6%	16,435	1,792	33	1.8%	1,830
Age (years)								
Under 20	20,925	66	0.3%	21,543	6,562	32	0.5%	6,621
20-29	56,727	392	0.7%	60,099	8,599	113	1.3%	8,749
30-39	31,078	286	0.9%	32,972	4,485	80	1.7%	4,577

40-49	30,176	324	1.0%	31,822	7,259	191	2.6%	7,465
50-59	20,516	204	0.9%	21,514	6,578	145	2.2%	6,737
>60	7,146	52	0.7%	7,478	2,068	29	1.4%	2,105
Unknown	25,475	317	1.2%	25,855	7,273	246	3.3%	7,533
Risk								
Heterosexual	79,822	514	0.6%	80,605	24,589	515	2.0%	25,169
IDU	752	31	3.9%	788	329	21	6.0%	350
MSM	9,029	297	3.2%	9,337	2,034	86	4.1%	2,123
Unknown/Declined	23,375	82	0.3%	30,820	1,314	19	1.4%	1,340
Other Risk	13,798	119	0.9%	13,953	3,212	36	1.1%	3,270
Sex								
Female	84,902	350	0.4%	89,951	19,089	256	1.3%	19,402
Male	105,540	928	0.8%	109,686	23,442	553	2.3%	24,059
Transgender-M2F	335	19	5.2%	363	152	25	13.9%	180
Transgender-M2F	42	1	2.3%	43	15	0	0.0%	15
Unknown/Declined	1,219	2	0.2%	1,235	116	1	0.8%	120

DC will continue to provide support to enhance the reach of HIV testing to high-risk populations (youth, transgender, MSM, women) and within non-traditional settings. Below are descriptions of high yield non-clinic based testing programs currently being conducted in DC. As part of overall screening strategy, there were several non-medical sites and community-based organizations funded publically providing HIV testing services over the past 3 years. In addition to these non-medical and CBO settings, DC funded several innovative testing programs to reach high risk and hard to reach populations.

Testing Programs

- Innovative couples HIV testing:** In 2008 HAHSTA funded the first “Couples HIV Testing “program in DC. Couples’ testing is a model that has been applied in countries outside the US but has not scaled up domestically. One of DC’s community provider leaders, Family and Medical Counseling Services (FMCS), was selected to implement this strategy. They have done so with much success - yielding a 1% positivity rate. HAHSTA explored the opportunity to expand in this area of innovation in HIV testing by inviting the CDC officer responsible for developing and implementing the internationally developed curricula to introduce it to a select group of our partners and discuss the tailoring of this curriculum to meet the needs of DC. Since the start of the initiative, the couples testing program has yielded the following results:
 - FY09: 262 total / 131 couples. 2 positives
 - FY10: 250 total / 125 couples. 4 positives
 - FY11: 48 total / 24 couples. 1 positive
- Crew Club:** HIV and syphilis testing in bath houses: HIV and syphilis testing in bath house: HAHSTA suspected that there were gay-identified and non-gay identified MSM who were not being reached by clinical and non-clinical settings, particularly African American men. The NHBS MSM study for DC of traditional MSM venues had an underrepresentation of African American men. HAHSTA formed a public-private partnership with the Crew Club (DC’s only recreational facility with a bathhouse component), Whitman-Walker Clinic and Gilead Sciences to offer HIV and syphilis testing at the venue. Gilead

provided \$40,000 in funding, with additional funding from the Crew Club and in-kind support from HAHSTA in the form of a Disease Intervention Specialist (DIS). The Crew Club maintains its own type of social network with repeat visitors, personal contacts among the participants and engagement of new members of the network. The project consists of a team – a phlebotomist and outreach volunteer – who offer a blood draw – one night a week (it is “college” night, which is very popular at the Club). Individuals are told that the HIV result will be given the next day and the syphilis result upon return 2 weeks later at the Club. The specimens are brought to Whitman-Walker Clinic where the HIV rapid test is applied and another sample is sent to a lab for the syphilis screen. If there is preliminary reactive on HIV, a team member will contact the individual for an appointment at Whitman-Walker Clinic for a medical evaluation. The syphilis test results are returned with 7-10 days and the results given at the Crew Club at the next available screening night. To date, the positivity rate of HIV is nearly 4% and more than 10% for syphilis – all previously undiagnosed. Nearly all of the participants when asked whether or not they would get testing from a traditional clinical or outreach location said that they would not and were willing to get tested because it was offered at the Club. The positivity rates, the high undiagnosed rate and the reluctance to use traditional screening locations reinforce to HAHSTA the need for greater testing in this type of social networking environment.

STD Screening in the Crew Club

Crew Club STD Screening July – December 2010				
Test	Site	Number*	Positive	Positivity Rate
HIV	---	189	7	3.7%
Syphilis	---	191	18	9.4%
NAAT - GC	Urethral	184	2	1.1%
	Pharyngeal	189	0	---
	Rectal	183	2	1.1%
NAAT - CT	Urethral	184	5	2.7%
	Pharyngeal	189	0	---
	Rectal	183	14	7.7%

- HIV testing in the Department of Motor Vehicles (DMV):** Another innovative model has been DC’s popular testing at a Department of Motor Vehicles office (DMV). In an attempt to support HAHSTA’s strategy to expand routine HIV screening in non-traditional settings and to normalize HIV screening, DC formed a new public-private partnership with HAHSTA, DMV, Family and Medical Counseling Service (FMCS) and Gilead Sciences to implement a one-year pilot program to offer HIV testing in the DMV Penn Branch office. The Penn Branch office is located in Ward 7, next to Ward 8, two areas of the District with the highest prevalence of HIV/AIDS. The site was also selected because it had the highest volume of customers at 20,000 visitors per year. The project consisted of FMCS offering testing at the office with linkages to care and treatment to its clinical program and referrals to other medical partners. The Project aims to reach 15% of visitors or 3,000 individuals and met that goal in its first year. The positivity rate was about 1% with half new positives. While this program is not designed to address DC residents based on risk-behavior or target population approach, it fully supports the DCDOH testing strategy fully. DC’s strategy not only attempts to reach those at highest risk and most-likely to be HIV positive but it also aims to normalize HIV screening in order to reduce the stigma surrounding HIV the activity of taking a HIV test. Gilead Sciences awarded \$250,000 to support the project. Given the unexpected success of the program and the time availability of resources from the first year ECHPP award, HAHSTA committed an additional

\$40,000 to the initiative as a part of the first phase of implementation of ECHPP. HAHSTA is now assuming full funding of the program.

- **“John School”:** Monthly testing at a prostitution diversion program has allowed access to men engaging in high-risk sexual behavior. The Johns School is a program coordinated by the Attorney General's Misdemeanors Branch. It is a one-day educational program for males who have been arrested for solicitation. These men are first-time offenders who paid a fee to attend this program to avoid receiving jail-time. The STD program would send DIS one Saturday a month to provide an hour-long presentation on STDs and provide screening for HIV, Syphilis, CT/GC. In 2009 this program tested 177 individuals and in 2010 84 people were tested. All of the results were negative for STDs. Recently the STD program has stopped conducting screenings at the Johns Schools and there are no plans of resuming services given the low yield.
- **STD and HIV screening in DC Public Schools:** With the introduction of the NAAT screen for Chlamydia and gonorrhea, HAHSTA saw an opportunity to expand STD screening among high school-age adolescents in DC in partnership with the Office of the State Superintendent for Education. Between 2007 and 2008, HAHSTA reviewed the model programs in Philadelphia and New York and initiated a demonstration with two public charter schools to offer the screening. HAHSTA developed a program design with public health staff making a 45-minute presentation on sexual health, including HIV and STDs, providing each student after the presentation with a card for them to designate a password to obtain the test result, a brown paper bag with a urine specimen cup and then in groups the students go into bathroom stalls and either chose to give a urine sample or not. All students return the bag whether or not they took the test. On average, 70% provided a sample. Students call HAHSTA two weeks later for their results. HAHSTA provides three treatment options: (1) HAHSTA clinical staff scheduled a treatment day at the school (2) students could go to the HAHSTA Southeast (SE) STD Clinic or (3) visit their own medical provider. HAHSTA follows up with all students to confirm treatment. The demonstration found infection rates of 9% to 18%. In 2008-2009, HAHSTA expanded the testing to seven DC public high schools and, for a first in the country, offered STD screening for participants in the DC Summer Youth Employment Program. The acceptance rates continued at more than 70% with infection rates at 9% to 14%. In 2009-2010, HAHSTA fully implemented the program in all 20 DC public high schools. To date, more than 12,000 young people have been tested. HAHSTA is encouraged that the infection rates appear to be stabilizing, if not showing some early indication of a small decrease. In 2010, HAHSTA formed a public-private partnership with DC Public Schools, Unity Health Care and Gilead Sciences for Unity clinicians to provide STD treatment and HIV testing in high schools. The pilot provides HAHSTA with the opportunity to increase opportunities for HIV testing. HAHSTA will be working with the school system to implement a full-scale HIV testing program, including community partners. The pilot provided HAHSTA with the opportunity to increase opportunities for HIV testing. The pilot resulted in more than 100 young people tested for HIV with 1 preliminary positive, which was subsequently confirmed positive. HAHSTA will be working with the school system to develop a new protocol to expand HIV testing on a larger scale with demonstrations in FY13.
- **The Angels Program:** This is a program for women who have been arrested for prostitution. The STD program sends three DIS the second Friday of each month to screen these women for gonorrhea and Chlamydia, syphilis and HIV. The women often refuse the syphilis testing due to a stated dislike of needles but usually agree to the CT/GC and HIV testing. This program tested 81 individuals in 2009 and 65 in 2010, each year yielding 1 positive result. The HIV positivity rate is 1% on average and mainly previous positives have been identified which provides an opportunity to offer re-engagement services to medical services. Due to limited resources HAHSTA has not been able to plan for expansion and is looking into alternative ways to offer services to these women.

- **TLC Plus** is a critical component of enhancing testing in non-clinical settings as well as providing additional resources and technical expertise to the Districts non-clinical testing partners. TLC plus also enhances the existing infrastructure by using the PEMS-1 CTR data and the HIV Case Surveillance system to monitor and evaluate effectiveness of the study components. As described in required recommendation one, the main objective of the study is to determine the feasibility of a community focused enhanced test and link-to-care strategy in the United States. The Expanded HIV Testing component involves social mobilization, with targeted messaging to promote testing, and implementation of the universal offer of HIV testing in non-clinical sites. These sites are critical to demonstrating an effective Linkage-to-Care component and the effectiveness of financial incentive (FI) interventions compared with the standard of care (SOC).
- **Public Benefits Office:** HAHSTA initiated a new public-private partnership with Gilead Sciences and Family and Medical Counseling Services to launch testing at one of the DC Department of Human Service public benefit offices. The offices – now known as Economic Security Centers – provide a range of services for low income DC residents, including Medicaid, Food Stamps, DC Health Alliance, TANF and other social service program enrollment. The Centers also work with TANF clients to move from welfare to work. Based on the DMV model, individuals at the center are offered HIV testing while waiting to meet with center staff. The program started in October 2011 and has to date tested more than 3,000 persons with a positivity rate of 1% -- similar to the DMV, about half of the positives are new positives.
- **Social Networking** Gaps analysis examining current testing patterns and programs in jurisdictions with similar HIV prevalence rates leads DC to the conclusion that social/sexual network based testing of MSM and IDU as part of reducing the number of people who are unaware of their HIV status should be explored. Social Networking is a low volume/high yield public health intervention that has proven effective in the identification of new HIV infections. DC was one of the cities that implemented social networking for HIV screening as part of a CDC demonstration project between 2005 and 2006. DC's program yielded an average positivity rate of 9% but reached a peak of over 10%. Given the high-risk populations likely being served in several non-medical settings and DC's prevalence rates, efforts to identify an even greater number of HIV positives outside the existing network of non-clinical testing providers must be pursued. A key approach to evaluating the social networks is assessing the effectiveness of the network recruiters, network associates and tracks the yield within the networks. Networks are best viewed through network mapping in order to understand the interaction between network associates and networks themselves. Mapping allows trends and movement within and between networks to be monitored. It can reveal the depth and reach needed to identify undiagnosed HIV positive individuals.

Cost

In order to support this degree of scale up, both local and federal investments have been necessary. Additionally, DC has partnered with private pharmaceutical companies to expand targeted testing efforts. Below is an assessment of where DC is current allocating federal, local and private dollars for targeted screening:

Sources of data

Program Evaluation Monitoring System (PEMS) data

HIV Case Surveillance Data (eHARS)

National HIV Behavioral Surveillance Data

Bureau of Grants Management and Fiscal Control

http://www.hptn.org/research_studies/hptn065.asp

Government of the District of Columbia Department of Health. HIV/AIDS, hepatitis, STD, and TB epidemiology annual report: 2009 update. Washington, DC: Government of the District of Columbia Department of Health; 2010. Available at http://dchealth.dc.gov/doh/frames.asp?doc=/doh/lib/doh/services/administration_offices/hiv_aids/pdf/annual_report_hahsta_march_2010.pdf. Accessed June 17, 2010.

Magnus M, Kuo I, Shelley K, et al. Risk factors driving the emergence of a generalized heterosexual HIV epidemic in Washington, District of Columbia networks at risk. *AIDS* 2009;23:1277--84.

CDC. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR* 2006;55(No. RR-14).

Condom distribution prioritized to target HIV-positive persons and persons at highest risk of acquiring HIV infection

Reducing HIV infection requires not only that people know their own and their partners HIV status, but that people who are HIV positive have tools necessary to reduce HIV transmission. One of the critical steps to reduce new HIV infection in the NHAS is to expand targeted efforts to prevent HIV infection using a combination of effective, evidence based prevention approaches. Among the scientifically proven biomedical and behavioral approaches that reduce the probability of HIV transmission is condom availability. Correct and consistent use of male condoms is estimated to reduce the risk of HIV transmission by 80%.

NHBS data for DC show that in 2007 and 2010, 70.1% and 74.1% respectively of heterosexuals(HET) at high risk for HIV, 42.6% of MSM and 68.1% of IDU did not use a condom at last sex. Given the high HIV prevalence rates among these populations, increasing the proportion of people routinely using condoms is critical. Almost 64.1% of MSM, 72.3% of IDU and 50.3% of HET indicated that they knew their last partner's HIV status. DC has prevalence rates above 1% in 7 or the 8 wards therefore DC itself is considered a 'high risk area', where all sexual behaviors put individuals at increased risk for HIV. DC uses Behavioral Risk Factor Surveillance System (BRFSS) to monitor condom use among the general population. It was found that in 29.7% of people used a condom the last time they engaged in sexual activity.

Condom Use by High Risk Population

	2007		2008		2009		2010	
NHBS Condom Questions	HET-1		MSM-2		IDU-2		HET-2	
Condom Use at Last sex (Overall)	29.9%		57.4%		31.9%		25.9%	
Condom Use at Last Vaginal Sex by Sex	M	F			M	F	M	F
	28.9%	28.9%			33.6%	25.5%	28.0%	24.7%
Female condom Use at Last Vaginal Sex by Sex							M	F
							5.1%	15.0%
BRFSS								
Condom use at last sex					29.7%			
Condom use at last sex by Sex					M	F		
					36.4%	25.5%		

With high prevalence rates in these populations, DC has implemented a highly successful condom distribution program focused on condom availability across DC. Since 2008, DC has expanded condom distribution from 100 providers in 2008 to 300 providers in 2010. Additionally, DC has additional components of its condom distribution program that target populations due to their vulnerability to HIV. Specifically among women, HAHSTA has used geospatial analysis to target distribution of the F2 condom in high-risk areas and venues where women frequent (see figures). Additional populations target for condom distribution include HIV positive individuals, youth, injection drug users (IDUs), and men who have sex with men (MSM).

Condom Distribution Venues by High Risk Population, 2009

Population	Number of Condoms Distributed
MSM	256,000
IDU	675,000
Youth	130,000
HIV Positive persons	2,000

Enhancing the use of social and sexual networks to distribute condoms can increase the efficiency of condom distribution among at risk populations: HAHSTA reviewed the case surveillance and behavioral data on MSM and condom use to develop a new program area to expand prevention strategies through the promotion of condom use to MSM in social networks with high levels of HIV prevalence and risk behavior. The epidemic’s impact on MSM is as complex as the entire epidemic in DC. The HAHSTA behavioral report “MSM in DC: A Life Long Commitment to Staying HIV Free” found a prevalence rate of 14% among the study population. Of all the 16,513 persons living with HIV/AIDS in DC as of 2008, 40% or 6,722 have as their mode of transmission sexual contact with men who have sex with men. One model of estimating the population of men who have sex with men in a new study by the Southern AIDS Coalition MSM Project yields estimates that 36,500 residents of DC are men who have sex with men. With that estimated population, about 19% of all men who have sex with men in DC are diagnosed and living with HIV/AIDS.

Syphilis is also a common disease among MSM in DC. The number of DC cases reported doubled from 2004 to 2008. Among persons reported both with HIV/AIDS and with primary or secondary syphilis between 2004 and 2008, nearly all cases were men. Among these men, half (58%) were black and most (60%) were between the ages of 20-39 years. Half (50%) were diagnosed with primary or secondary syphilis more than 6 months after their first HIV diagnosis.

The NHBS MSM study reported significant behaviors leading to further HIV transmission:

- 41% of participants testing positive were unaware of their diagnosis prior to the study
- 36% did not know their last partner’s HIV status
- 43% of men did not use a condom at last sex

HAHSTA just released an MSM Strategic Plan to reduce new infections, ensure linkage to care and treatment, and promote effective prevention. HAHSTA enlisted community experts working in the field of HIV prevention in MSM to formulate recommendations on key priority areas to interrupt and reduce HIV disease burden. Both the MSM Study and MSM Work Group identified social sexual networks as a critical area for

intervention. The District has both formal and informal social networks, some establishment-based, such as bars, restaurants, clubs, gyms and open areas and some community-based such as house parties, business events and informal gatherings. This is a list of some of those networks:

- Young MSM
- Homeless and young, homeless MSM
- Older Adult MSM (over 50)
- Internet-using MSM
- Sex party participants
- Bug chasers
- Sex workers and young sex workers
- House boys (live-ins)
- HIV-positive MSM
- Leather
- Bikers
- Immigrant and non-immigrant
- Non-gay identified

In its recent funding opportunity, HAHSTA designated \$120,000 in CDC funding for a program Promoting Condom Use among MSM Social Networks. HAHSTA funded two community providers – DC GLBT Center and Andromeda Transcultural Health. HAHSTA has supported the DC Center in its condom project with the provision of free condoms and lubricant. The Center designed an innovative project with two names – Toolkit and F*ckit – consisting of a web site, condom packages with lube and informational material (assembled by volunteers) and recruitment of MSM venues (bars and clubs) to distribute the packages. The Center invested in dispensers at select establishments. Andromeda has worked extensively in the Latino MSM social network with HIV testing, outreach and linkages to its clinical services. The new program area supports the providers to implement a new model for outreach, education, distribution and promotion of condoms for the prevention of HIV and STDs, namely Syphilis. The providers identify and assess social networks, form partnerships with organizations/businesses serving the MSM community and party hosts, and develop activities that will engage sponsors and participants of social network events and venues. The providers also integrate peer educators and ambassadors as a component of the program with recruitment and training. The programs started in January and data is not yet available, however, HAHSTA is encouraged that the model will be one for expansion as proposed in its plan.

Network recruitment strategies have had demonstrated effect in reaching MSM, IDU and HET at risk for HIV nationally. Scaling up network based recruitment and distribution strategies will allow DC to gain entry into existing large social and sexual networks among women, youth and MSM, increasing the number of people who have routine access to condoms.

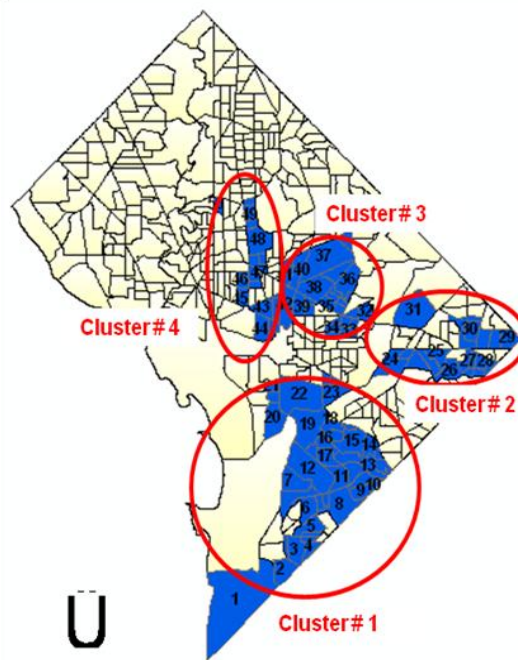
DC will also develop routine monitoring and evaluation (M and E) indicators including updating local questions on the NHBS system to assess network based condom distribution in sexual/social networks among heterosexuals at high risk for HIV specifically women, well as IDU. For populations that are not included in NHBS like youth, MSM and transgender persons, DC will develop local M and E indicators to assess the impact of the interventions within these populations.

In addition to routine M and E, DC is collaborating with Johns Hopkins University to evaluate the effectiveness and cost effectiveness of the F2 condom. The primary aim of this project is to assess (a) the potential impact and (b) the cost-effectiveness of the synthetic latex female condom (FC2), following projected implementation

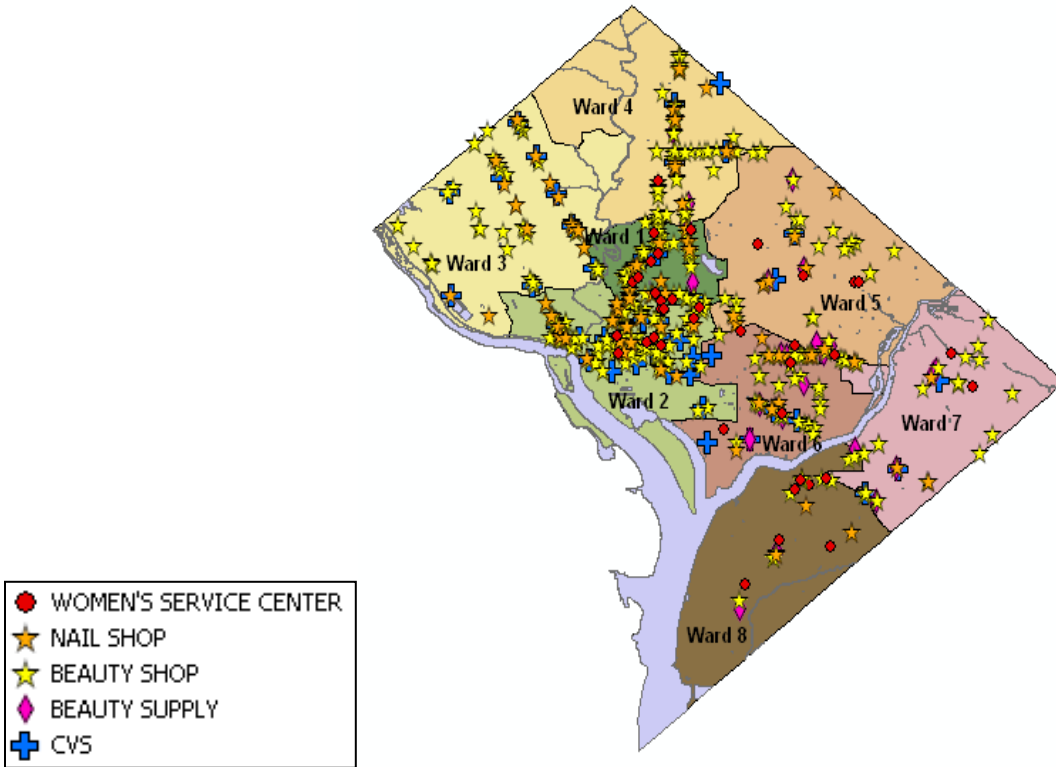
in Washington, DC. The primary analysis will consist of an effectiveness component and a costing component. For the effectiveness component, two hypothetical populations will be constructed to reflect the sexually active populations of Washington, DC between the ages of 15 and 50 years. These populations will be divided into three strata of sexual activity (high, moderate, and low), two genders, and two strata of HIV infection status, giving a total of twelve sub-populations. The annual number of sexual contacts between each of these sub-populations, as well as the current use of condoms or other methods for prevention of HIV, will be incorporated into the model, and the characteristics of the model will be verified for accuracy against known population parameters (e.g., HIV incidence, total condom usage). Once a model has been developed that accurately reflects the relevant populations in terms of existing population parameters, we will introduce the FC2 into the model, using a range of uptake levels thought to represent the lower and upper bounds of reasonable uptake. This model will then be compared, in terms of the number of new HIV infections, to a model in which FC2 remains unavailable. For the costing component, a societal perspective will be used to estimate the incremental cost of introducing the FC2. This cost will include the costs of production, distribution, marketing, and procurement by potential users, and will be modeled as a function of the uptake level of the FC2 in the relevant populations. The cost-effectiveness of the FC2 will then be modeled as the incremental cost-effectiveness ratio, or the cost per HIV infection averted comparing FC2 rollout against the current standard of care (including any distribution of existing female condoms). This result will be reported as a range, in turn a function of the level of FC2 uptake and use in Washington, DC. An additional analysis will describe the levels of uptake required to achieve pre-defined thresholds of impact (cases averted) and cost-effectiveness. Secondary analyses may include disability-adjusted life years (QALYs), rather than new HIV infections, averted as the measure of effectiveness. Sensitivity analyses will be conducted on all model parameters.

Mapping of High Risk Areas for Distribution of the Male and F2Condom

CLUSTER	1		2		3		4	
Sex								
Male	26,509	44%	10,874	42.8%	13,845	46.3%	11,765	47.5%
Female	33,809	56%	14,525	57.2%	16,045	53.7%	13,006	52.5%
Total	60,318	100%	25,399	100.0%	29,890	100.0%	24,771	100.0%
Age								
Under 5	6,146	10%	2,296	9.0%	2,117	7.1%	1,619	6.5%
5-17	16,281	27%	6,269	24.7%	5,668	19.0%	4,089	16.5%
18-21	3,738	6%	1,366	5.4%	1,852	6.2%	2,741	11.1%
22-29	6,973	12%	2,638	10.4%	3,165	10.6%	3,532	14.3%
30-39	8,282	14%	3,494	13.8%	4,262	14.3%	3,662	14.8%
40-49	7,599	13%	3,326	13.1%	4,625	15.5%	3,307	13.4%
50-64	7,011	12%	3,310	13.0%	4,252	14.2%	3,150	12.7%
65 and up	4,288	7%	2,700	10.6%	3,949	13.2%	2,671	10.8%
Total	60,318	100%	25,399	100.0%	29,890	100.0%	24,771	100.0%



Mapping of High Risk Venues for Distribution of the F2Condom



Cost

In order to support this degree of scale up, local, private and federal investments have been necessary. Below is an assessment of where DC is current allocating federal, local and private dollars targeted condom distribution:

District Investment in Condom Distribution for HIV Positive/High Risk Negative Persons

	2008		2009		2010	
	Amount (\$/)	% (+/-)	Amount (\$/)	% (+/-)	Amount (\$/)	% (+/-)
Local Resources						
Condoms	NA		NA		\$63,000	
Federal Resources						
Condoms	NA		NA		\$240,000	

Agencies funded: HIV positive (3), high risk (15)

Locations: program sites, recreation centers, parks, mobile units, bars, restaurants, athletic facilities

Condoms distributed: 1.1 million

HIV positive people reached: 180 (by the 3 prevention with positives programs)

High Risk persons reached: 75,000

Sources of data

National HIV Behavioral Surveillance Survey (NHBS);

Behavioral Risk Factor Surveillance System (BRFSS);

Program Evaluation Monitoring System (PEMS)
Youth Risk Behavior Surveillance System (YRBSS)
Program data

Provision of Post-Exposure Prophylaxis to populations at greatest risk

There is no DC policy for the provision of non-occupational post exposure prophylaxis (NPEP) to populations at high risk of HIV infection, nor one for occupational post exposure prophylaxis. However, data show that prophylaxis is recommended after both occupational and non-occupational exposure to HIV (1, 2). Observational data suggest that such interventions are approximately 80% effective in averting subsequent HIV infection but they are not a guarantee of protection (3). Review of the data indicates that prophylaxis should be reserved for exposures that are associated with a credible possibility of HIV transmission, usually considered to be at least a 0.1% risk of transmission from a source patient who is known to be HIV-positive or a source patient whose serologic status is unknown but who is at high risk for HIV infection. The per-contact risk of HIV transmission from sexual exposure varies according to the nature of the exposure. The estimated risks are 1 to 30% with receptive anal intercourse, 0.1 to 10.0% with insertive anal intercourse and receptive vaginal intercourse, and 0.1 to 1.0% with insertive vaginal intercourse (4-6). The estimated risk of transmission associated with sharing needles for injection-drug use is approximately 0.67% per needle-sharing contact (7). Therefore, after exposure to HIV through sexual contact or needle sharing, antiretrovirals may be administered for prophylaxis against infection. No efficacy data are available for this strategy, but substantial safety and feasibility data have led to its widespread acceptance. A case-control study in 1997 showed that health care workers who received zidovudine after needle stick exposures were 81% less likely to undergo seroconversion to positivity for HIV (3). Although analogous clinical studies of NPEP have not been conducted, data from observational studies and registries demonstrated that NPEP might reduce the risk for infection.

In addition, postnatal prophylaxis with abbreviated regimens has been proved to successfully reduce mother-to-child HIV transmission.

In addition to a generalized epidemic, DC has high rates of high-risk behaviors among at risk populations as well as a condensed area with a high concentration of areas of HIV prevalence and poverty. DC has one existing NPEP program, Sexual Assault Nurse Examiner (SANE) program, to provide comprehensive care to adult victims of rape, sexual assault, and other sex crimes. The DC SANE program is a partnership between the Executive Office of Mayor, Office of Victim Services and Washington Hospital Center (WHC). The program is staffed 24 hours a day, seven days a week by nurses with specialized training in medical forensic evidence collection. Currently AZT/3TC and Lopinavir/Ritonavir twice a day for 28 days is prescribed to SANE patients as per WHC internal post exposure protocol. However, a revision to this combination is being evaluated to change this to Tenofovir/FTC. Every patient who elects to begin the post exposure treatment is tested for HIV at baseline and in several weeks. Evaluation of this program can serve as a source of data as DC develops a policy and explores the feasibility of implementation.

The NHAS recommended actions for reducing new HIV infections encourages government agencies to design and evaluate innovative prevention strategies and combination approaches for preventing HIV in high-risk communities. DC will explore and adapt existing policies from other jurisdictions that have existing evidence based policies. DC will work with the DC's Center For AIDS Research (CFAR) at George Washington

University to develop a city-wide NPEP policy and demonstration project. This partnership will allow DC to assess the effectiveness and cost effectiveness of a demonstration project assess the appropriateness of scale up of NPEP as well as create an effective monitoring and evaluation strategy to monitor issues of resistance and seroconversion.

In collaboration with the National Institutes of Health, the National Centers for AIDS Research are collaborating with local health departments on the scale up of ECHPP interventions. DC will engage George Washington University's CFAR and its participating partners (Howard, Georgetown and VA Medical Centers) in the development of appropriate policies, scale up and evaluation strategies associated with NPEP. Areas of technical expertise that DC will utilize include statistical support, outcomes evaluation, behavioral and prevention expertise, clinical expertise, laboratory support, cost-effectiveness and modeling studies.

Cost

There is no citywide policy and implementation program. However for the SANE program, the average number of cases seen annually is 250 people and the cost is estimated at \$600,000 of DC Local Funds that does not include the adherence counselor or staff time.

Sources of data that inform this program include:

(1) Landovitz RJ, Currier JS. Clinical practice. Post-exposure prophylaxis for HIV infection. N Engl J Med. 2009 Oct 29;361(18):1768-75.

Antiretroviral post-exposure prophylaxis after sexual, injection drug use, or other non-occupational exposure to HIV in the United States: recommendations from the U.S. Department of Health and Human Services. Atlanta: Centers for Disease Control and Prevention, 2005.

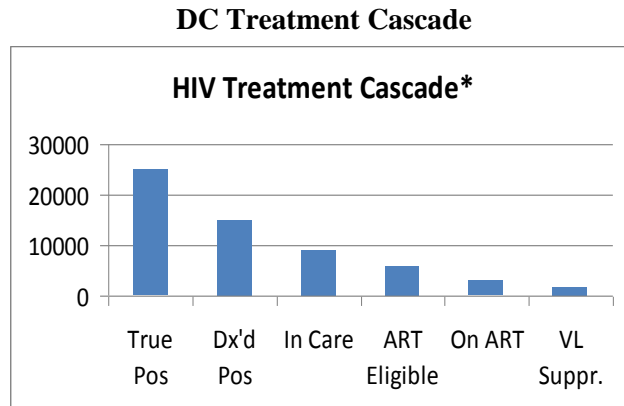
National HIV Behavioral Surveillance Survey (NHBS);

Program Evaluation Monitoring System (PEMS)

Castel AD, West T, Jolaosho T, Rowe D, Robertson G, Brown D, Mitchell K, Clark L, Rennie L, Hitchcock D, Magnus M, Sansone M, LeSansky H, Greenberg AE. "Routine HIV Screening in the District of Columbia Jail, Washington, DC 2006-2007," accepted as poster presentation at the National Conference on Correctional Health Care, Nashville, TN: October 2007

Efforts to change existing structures, policies, and regulations that are barriers to creating an environment for optimal HIV prevention, care, and treatment

The framework for an optimal HIV prevention, care and treatment in DC is a system that will facilitate the movement of individuals from early diagnosis to linkage to care and other services; enable their access to antiretroviral treatment; support their adherence to medication and medical care; support their retention in care and re-engagement in care if needed, and ultimately, contribute to the achievement of improved health outcomes for the clients. DC's "Treatment Cascade" is a pictorial representation of this.



* Hader S, Kamanu Elias, N and West, T

To achieve this system, HAHSTA recognizes the importance of an enabling environment and continues to explore and collaboratively address legislative, structural and policy barriers to critical activities such as expanding the lynchpin of the cascade - routine testing - and other critical programs. Some of the activities conducted are outlined below.

Legal and policy analysis revealed no separate and written consent required for routine HIV screening, and this same environment allowed (chronologically):

- Automatic screening in the DC correctional system (2005)
- Transition from code based to confidential names based HIV and laboratory reporting (2006)
- Lift of the ban on the use of local government dollars for needle exchange programs (2008)
- Legislation mandating reimbursement of HIV testing in Emergency Departments (2008)
- Reporting of HIV related laboratory data to surveillance (2008)
- Facilitation of condom availability and STD screening in DC's Public School system (2009)
- Transition of several hundred ADAP recipients to Medicaid after expansion of Medicaid eligibility through early implementation of health care reform (2010)

DC is one of the intervention sites for HIV Prevention Trial's Network (HPTN) 065, a large study to test the feasibility of certain models to improve linkage to care and adherence. The results of this could then inform new policies and practices resulting in structural changes to the HIV care system.

Policy and Structural Changes

Reimbursement for HIV testing: The passage of the bill requiring medical insurance corporations to reimburse for HIV screening in DC Emergency Departments as a separate activity was a significant step towards institutionalizing the screening of HIV and increasing chances for sustainability. However although there is legislation, there have been few attempts by publicly funded emergency department testing programs to seek reimbursement. The few who have attempted to do this have faced bureaucratic barriers and resistance from insurance companies to provide payment. The full implementation of this legislation would support

expansion and further allow the uniform establishment of HIV screening delivery in all emergency departments. This should reduce the burden on public funds allowing redirection, support longevity of screening programs and increase the number of people tested and aware of their HIV status. HAHSTA will perform a thorough analysis of efforts to date, identify discrete barriers to reimbursement and partner with the Department of Insurance and Banking, the government body that regulates the insurance industry in DC, to address these barriers. Routine HIV screening in non-HAHSTA funded providers contributing to DC's enhanced strategy would be the expansion of HIV screening as a routine part of care in private, individual and network medical practices. HAHSTA already begun this effort by establishing a private partnership with Pfizer, the pharmaceutical company, where local pharmaceutical representatives to disseminate HAHSTA's routine HIV screening tool-kit and encouraging HIV screening. To build on this HAHSTA will strengthen its partnership with Medicaid managed care organization's provider network, operated from DC Office of Health Care Finance to scale up HIV testing within their practices and make it routine. This partnership will enable education, capacity building, and logistical support to the contracted managed care organization physicians. The impact of this policy and structural change within Medicaid managed care could substantially increase the number of people tested, and further allow for HIV screening be considered a routine part of medical care.

Cost

There is no funding set aside or invested in effecting structural changes in DC at this time. Efforts to effect change to date and in the future are supported by staff time funded by HHS/CDC, HHS/HRSA and DC Local Funds.

Sources of data

Community Service Assessment

Enhanced HIV/AIDS Reporting System (eHARS)

National HIV Behavioral Surveillance Survey (NHBS)

Surveys from the ongoing HIV Prevention Trial Network (HPTN) 065

Behavioral Risk Factor Surveillance System (BRFSS)

Program Evaluation Monitoring System (PEMS)

Youth Risk Behavior Surveillance System (YRBSS)

Linkage to HIV care, treatment, and prevention services for those testing HIV positive and not currently in care

Local Investment in Linkage to Care

Providers Type	Number of Providers	Funding	Activities
Prevention CDC Funded	Seven Expanded testing providers	~\$800,000	Hospital & clinical health service providers that offer high-volume, routine HIV screening (4 providers are in scale-up phase, 3 providers are in transition phase)
Prevention DC Appropriated	Four Navigation providers: Latino and citywide navigation Sixteen Testing providers	~\$450,000 ~\$1,225,000	These providers are charged with navigating newly positive and those lost to care/follow-up to treatment All testing providers are required to link all positive patients to care; the # of individuals linked to care via Red Carpet Entry is captured on the Table A
Ryan White Part A	There are thirteen sub grantees under Ryan White Part A who are contracted to link clients to services under medical case management.	~\$1,600,000	<ul style="list-style-type: none"> Linkage and coordination of services to implement medical case management (MCM). Client monitoring to assess the efficacy of the plan; and Periodic [reassessment] and adaptation of the plan as necessary over the life of the client based on medical and psychosocial outcomes.
Ryan White Part B	There are fourteen sub grantees under Ryan White Part B who are contracted to link clients to services under medical case management.	~\$2,000,000	<ul style="list-style-type: none"> Collaborating with the client's other providers for coordination and follow-up and Organizing or participating in case conferencing with the interdisciplinary team.

Sources of information on these efforts include:
Enhanced HIV/AIDS Reporting System (eHARS)
Program Evaluation Monitoring System (PEMS)

HIV/AIDS laboratory reporting data
 AIDS Drug Assistant Program (ADAP)
 Ryan White Services Report (RSR)
 Medicaid data
 National HIV Behavioral Surveillance Survey (NHBS)
 Surveys from ongoing HIV Prevention Trial Network (HPTN) 065
 Community service assessment

Retention in or re-engagement in care for HIV-positive persons

Retention in care for people living with HIV is critical for optimizing health outcomes. Individuals who are HIV positive and not in care are more likely to develop AIDS and less likely to reach/maintain viral suppression. Of the estimated 30,000 people living with HIV/AIDS in DC, for nearly half (42%) have no evidence of being in care. An NHAS objective is to increase the proportion of Ryan White clients who are in continuous care to 80%. In DC, HAHSTA looks beyond this goal to ensure all people living with HIV are in care, regardless of payer system.

Unmet Needs Assessment, District of Columbia, CY2010

Need assessment	HIV cases		AIDS cases		Total	
	N	%	N	%	N	%
Met	4191	51.3	5878	64.5	10069	58.3
Unmet	3973	48.7	3230	35.5	7203	41.7
Total	8164	100	9108	100	17272	100

In 2009, HAHSTA developed a comprehensive care plan to outline evidence based strategies promoting immediate recruitment into care for people living with HIV, retention in routine care for people living with HIV, re-engagement of people who are lost to care and developing coordinated strategy focused on optimizing health outcomes.

“4R’s: Recruitment, Retention, Recapture and Results”

The 4R’s is a best practice framework that HAHSTA developed to characterize the elements of an optimal care program. The “4R’s” strategy echoes the action steps outlined in the NHAS as critical to connecting people to services and keeping them in care. These overarching goals include establishing seamless systems to immediately link people to continuous and coordinated quality care, increase the number and diversity of available HIV providers, and support people living with HIV with co-occurring diseases and health conditions.

The first “R” signifies recruitment or navigation into care; the second “R” is for retention in care and the elements that sustain it; the third depicts recapture or re-engagement into care for those who have been lost to care and the last “R” represents the results or improved outcomes that are the goal for those in care. HAHSTA regards retention and re-engagement as part of the core work of HIV care providers, and supports the activity through the service categories ambulatory outpatient medical care and medical case management, and to a lesser extent mental health and substance abuse services. These funds are part of the CARE Act Part A and Part B portfolios. In addition, HAHSTA funds Navigator programs with local and CDC funds.

Recruitment

The Navigator Model was developed on the premise that entry into primary care is an unmanageable burden for some HIV-positive individuals. With the increase in the number and kinds of sites at which HIV testing is performed, positive test results are more likely to occur at service providers not affiliated with a larger organization, network, or testing program. These sites traditionally diagnose relatively few persons with HIV in a given year and are less familiar with how to successfully promote and ensure linkage for their clients. The Navigator Model provides intensive, time-limited follow-up to ‘match’ the client with an appropriate HIV provider, negotiate barriers to access and ensure initial linkage and establishment of care. The navigator “checks in” with the client at three months, six months, and twelve months to make sure that the client is retained in care. The navigator is distinct from and complements traditional medical case management services.

Retention

Although the degree of utilization of the health care system is the most common bases for measurement of retention, across studies and clinics, patient retention is calculated in different ways. These include the number of missed appointments, the number of medical visits at regularly defined intervals, and a combination of those methods. The most frequent indicator is a variation of missed appointments. HAHSTA has chosen to measure retention, consistent with HRSA definition, as the number of primary care medical visits attended in a 12-month period and has decided that adherence to primary medical visits (not subspecialty, phlebotomy or support visits) is the best long-term measure of retention.

Medical Case Management

A key element in HAHSTA’s retention strategy is the role of medical case management (MCM). HAHSTA currently supports 18 agencies to provide medical case management services to HIV positive individuals in DC. Ten of these agencies are also HIV primary medical care clinics. 18 are community-based organizations that serve specific HIV positive sub-populations, such as transgender, black MSM and the transiently housed. Over 75% of clients in Ryan White funded outpatient primary medical care have used the services of a medical case manager. In recognition of this, HAHSTA created a set of Medical Case Management Guidelines for DC. The guidelines emphasize that medical case managers have joint responsibility, along with medical teams, for their clients’ clinical outcomes. As such, they must actively provide treatment adherence and retention support in addition to addressing the psychosocial needs of the client. Medical case managers are required to review viral loads and CD4 counts and have established feedback sessions with the primary medical team. DC is one of very few jurisdictions that require this of all funded Medical Case Management programs.

Central to these guidelines is the use of an Acuity Scale. The Acuity Scale places clients into one of four management levels: intensive, moderate, and basic or self-management. The scale was designed to capture the most medically vulnerable clients and to encourage self-management by those capable of doing so. There are nine pre-defined situations or conditions, also referred to as “triggers,” that by design place clients into the highest management level. These triggers are: homelessness; peri-incarceration; pregnancy without prenatal care; CD4 count below 200/mm³ concomitant with a viral load above 400 c/L; new diagnosis of HIV; untreated mental illness; new to antiretroviral therapy; not in care or re-engaging in care; and non-adherence to HIV medication. These conditions require a higher degree of engagement by the medical case manager to reinforce the necessity of primary care, adherence and retention support and to enable the client to achieve optimal health outcomes.

Evaluating the performance of medical case management staff is one of the core functions of a HAHSTA-funded MCM program. Within these MCM guidelines, performance is measured by results achieved for the

client. This is not to imply that “process” is not important – for example, how many calls were made to or on behalf of the client are necessary steps to achieving a positive outcome for the client - but they are not the desired end result. As such, with few exceptions, medical case managers’ performance is evaluated based on the outcomes achieved for the client. The intended outcomes of MCM for HIV/AIDS patients include greater participation in and the optimal use of the health and social services, increased knowledge of HIV disease, delay of HIV progression, reinforcement of positive health behaviors and an overall improved quality of life. These are not short-term goals, and given the complex needs of clients, achieving them is not a straightforward process. HAHSTA is refining indicators to measure the effectiveness of these interventions based on these short- and long-term outcomes of individuals who receive MCM services.

In addition to the medical case management based strategy to improving retention, HAHSTA’s funded HIV medical providers employ various techniques to retain individuals in care. These consist of appointment reminders, telephone follow-up after medical visits, peer support groups, patient consented family involvement and strong encouragement for disclosure for social support (data shows that those who disclose have better health outcomes).

Community Health Workers

In consideration of: 1) the role that social determinants of health play for the initiative’s prioritized populations, 2) their need for more direct and personalized assistance than the current system can provide, 3) the opportunities in DC with healthcare reform to test systems-level access to care strategies, and 4) the Community Health Worker (CHW) evidence base, HAHSTA funded an initiative that will systemize a network of peer CHWs serving low-income African-Americans living in Wards 5-8, the wards with some of the highest poverty rates, the large majority of whom will be women. CHWs will identify out-of-care PLWH/A, build peer-based trust and inform them about living with HIV, provide personalized assistance to help them enter and navigate and remain within service systems, and support them throughout the early part of their medical care until they become fully engaged.

There is a growing body of research on the CHW workforce and its effectiveness (11, 12, 13, 14). In the past few years alone, there have been over a dozen published scientific studies examining CHW program design issues, outcomes, and cost-effectiveness, including at least nine studies that looked at health insurance enrollment, healthcare utilization and maintenance, or chronic disease management. 15 Research instills initial confidence that CHWs can be a cost-effective strategy for increasing healthcare utilization and improving health outcomes, though more rigorous research is needed, particularly related to HIV/AIDS. Research supports the notion that CHWs are effective due to the “cultural, linguistic, ethnic, and/or other experiences they share with the populations they serve.”(16)

Re-engagement in care

Recapture Blitz

In collaboration with its community partners, HAHSTA developed an ongoing “recapture” initiative for re-engagement of patients who have been lost to care. The “Recapture Blitz” is a recurrent time-limited initiative, where primary care providers implement intensive efforts at contact and re-engage clients. The Blitz was pioneered as part of the services supported by Part A Minority AIDS Initiative funding, and was designed by a community partner to identify individuals who have dropped out of care, and recruit them to return to care. They reviewed clinic records and determined those individuals that had discontinued receiving primary care

services without explanation or transfer. Staff of the agency was deployed to contact these individuals over two months and to find out if the client was receiving health care from another provider, and if not, made a return appointment. Multiple contacts through phone calls, letters or texts were needed to reach the client and return them to care.

Beginning in September 2009, HAHSTA expanded this initiative to include an additional six providers of primary care and named it the “Recapture Blitz”. This effort was repeated in 2010, although fewer clients were noted to be lost to care. The elements of HAHSTA’s “Recapture Blitz” included the below. Best practice versions of the blitz with broader stakeholder input will be repeated over the project period.

Identification of the client cohort for recapture: Compilation of client lists who were lost to care who for at least six months to two years; Match of client list to ADAP, e-HARS and laboratory datasets to determine time to last contact and the extent to which these individuals have been receiving care at other organizations; matching to the death registry and submission of streamlined list of truly out of care and alive clients.

Engagement of clients: Repeated attempts to reach and encourage those targeted to return to care. The pioneering partners experience demonstrated that a relatively large number of contacts – about fifteen on average – are needed to re-enroll clients successfully. In some cases, incentives such as gift cards are offered upon return to care.

Monitoring and evaluation of results: Data elements used were the number of clients: submitted as lost, targeted, a contacted, of out care, found to be in care, deceased, unable to locate and clients re-engaged in care and average number of contact attempts.

Recapture Blitz Summary

	2009	2010*
Number of clients lost to care (reported)	1,365	585
Number of clients in care (actual)	1,008	488
Number of clients contacted	404	203
Average number of contacts per person	2 to 4	2 to 10
Number of appointments made	207	132
Number of appointments kept	186	109

Cost

Local Investment in retention and re-engagement in care

	2009		2010	
	Amount (\$)	% (+/-)	Amount(\$)	% (+/-)
Local Resources				
Retention and re-engagement in care (DHCF)	Unknown*	-	Unknown*	-
Federal Resources				
HRSA Part A	\$9,042,474	4%	\$9,873,139	9%

HRSA Part B	\$3,216,248	0%	\$2,796,000	-14%
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Sources of data

AIDS Drug Assistant Program (ADAP)
 Ryan White Services Report (RSR)
 Data from the enhanced HIV/AIDS Reporting System (eHARS)
 Program Evaluation Monitoring System (PEMS)
 HIV/AIDS laboratory reporting data
 Medicaid data
 National HIV Behavioral Surveillance Survey (NHBS)
 Surveys from ongoing HIV Prevention Trial Network (HPTN) 065
 Community Service Assessment
 Provider reports

References

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- (12) Massachusetts Department of Public Health Community Health Worker Advisory Council, Community Health Workers in Massachusetts: Improving Health Care and Public Health, January 2010, p. 79-98. http://www.mass.gov/Eeohhs2/docs/dph/\com_health/com_health_workers/legislature_report.pdf
- (13) RTI International–University of North Carolina Evidence-based Practice Center, Outcomes of Community Health Worker Interventions, prepared for Agency for Healthcare Research and Quality, US DHHS, June 2009.
- (14) Health Resources and Services Administration, Community Health Worker National Workforce Study, 2007.
- (15) Massachusetts Department of Public Health Community Health Worker Advisory Council, Community Health Workers in Massachusetts: Improving Health Care and Public Health, January 2010, p. 79-98.
- (16) IBID

Provision of antiretroviral treatment HIV-positive persons

Ambulatory outpatient medical care supported by HAHSTA includes, by definition, adherence to Department of Health and Human Services (DHHS) antiretroviral treatment guidelines. This is mandated as a condition of funding. There are several ways HAHSTA monitors the provision of recommended treatment regimens.

ADAP Utilization

The AIDS Drug Assistance Program (ADAP) is an important source of prescription drugs for people with HIV/AIDS with limited or no insurance. In Washington DC, ADAP served more than 800 new clients in 2010 with drug expenditures exceeding \$20,000,000. HAHSTA partnered with the Epidemiology Branch of DHAP CDC to create a sustainable reporting and analysis system for routine program evaluation and provide feedback on the impact of ADAP supported ART. An analysis was performed to assess how well the ADAP could identify ADAP clients in need of ART and see the rate and rapidity with which they start ART. This project developed a computerized method to link service utilization data, ADAP eligibility data, prescription filling data, and laboratory data from the HIV/AIDS Reporting System (HARS) to assess utilization patterns, persistence of coverage, identify ADAP eligible clients not using the prescription benefit, and characterize the virologic response of clients utilizing ADAP. 2009 data was used to test the system's capacity to identify ADAP clients in need of ART and time to starting ART. Those ADAP clients, who were not already on ART

but were eligible by CD4 count, were eventually started on ART in 2009, documenting the utility of this essential public drug assistance program. To improve pharmacy coverage, ADAP clients with low CD4 cell counts, who appear eligible for HAART but not utilizing pharmacy benefits, can be identified for outreach by case management services or providers to assess whether they need to be linked to care.

Regimen Analysis within ADAP

HAHSTA enlisted John Snow International (JSI) as part of the ADAP Drug Pipeline Partnership in 2009. Between 2008 and 2009, DC ADAP experienced a 50% increase in the number of clients, and expected this increasing trend to continue as the program scaled up. It was necessary to identify financial resources required to meet the ARV drug requirements of the expanding program. Using various data types and established models, JSI conducted 3 different 24-month forecasts of ARV drug requirements, estimating quantities of each drug and total costs for each year. This allowed HAHSTA not only to plan fiscally, but the drug regimen analysis that was conducted also revealed more than 200 regimens that had been prescribed and supported by ADAP. Through this analysis, every single ARV regimen that ADAP clients are prescribed is known. With this information, HAHSTA convened an expert working group comprised of academia, private and public ARV experts, pharmacists, and community providers to review these regimens. This revealed that over 85% of ADAP ARV clients were on standard regimens.

In response, HAHSTA enlisted the assistance of the standing HIV/AIDS ADAP Drug Advisory Committee (HADAC) to develop a quality implementation protocol. HAHSTA implemented this protocol that allows review and monitoring of non-standard regimens prescribed to ADAP clients. HAHSTA now supports one pharmacist organization to perform ongoing drug utilization reviews as part of this process.

When HAHSTA's integrated database system MAVEN is implemented, comprehensive clients data across the continuum of care and across time periods, including monitoring and evaluation of treatment regimens will allow for a more in-depth analysis of health outcomes.

Building provider capacity

At the direct provider level, DC is also one of two sites for HPTN 065, and as part of the protocol HPTN 065, HIV providers will be trained on the most up to date DHHS ART guidelines and surveyed to determine barriers to implementation of guidelines. Currently the Ryan White Funded AETC and the Center for Minority Studies provide regular seminars on prescribing within DHHS guidelines.

In 2011, HAHSTA supported eight sites for the provision of HIV treatment with Ryan White funding. Through the partnership with the National Institutes of Health, HAHSTA has collaborations with other non-funded sites such as academic centers and the Veterans Affairs Medical Center. The aforementioned initiatives are efforts to ensure that these providers offer ART to clinically eligible HIV positive individuals to slow disease progression and improve immune function through viral suppression. Lowering viral load at the individual and at the community level may also lead to reduce transmission should a HIV positive person engage in high risk behavior. An appropriate ART regimen increases the likelihood that an HIV positive individual may reach viral suppression. As a result, HAHSTA has placed emphasis on increasing the proportion of patients who are offered and supported in beginning ART in order to maximize the benefits of appropriate pharmacotherapy. The information gleaned from the regimen analyses provide a basis for intervention with providers to not only routinely offer ART to those clinically eligible, but also to prescribe in accordance with the most up to date DHHS guidelines.

Investment in provision of antiretroviral treatment for people living with HIV, 2008-2010

	2008		2009		2010	
	Amount (\$)	% (+/-)	Amount(\$)	% (+/-)	Amount (\$)	% (+/-)
Local Resources						
Treatment	Unknown*	-	Unknown*	-	\$1,000,000*^	-
Federal Resources						
HRSA Part B	\$15,669,767	-	\$16,014,506	3%	\$18,177,303	12%

* DC will strengthen relationships with Office of Health Care Finance ^ Funding from City Council for DC ADAP

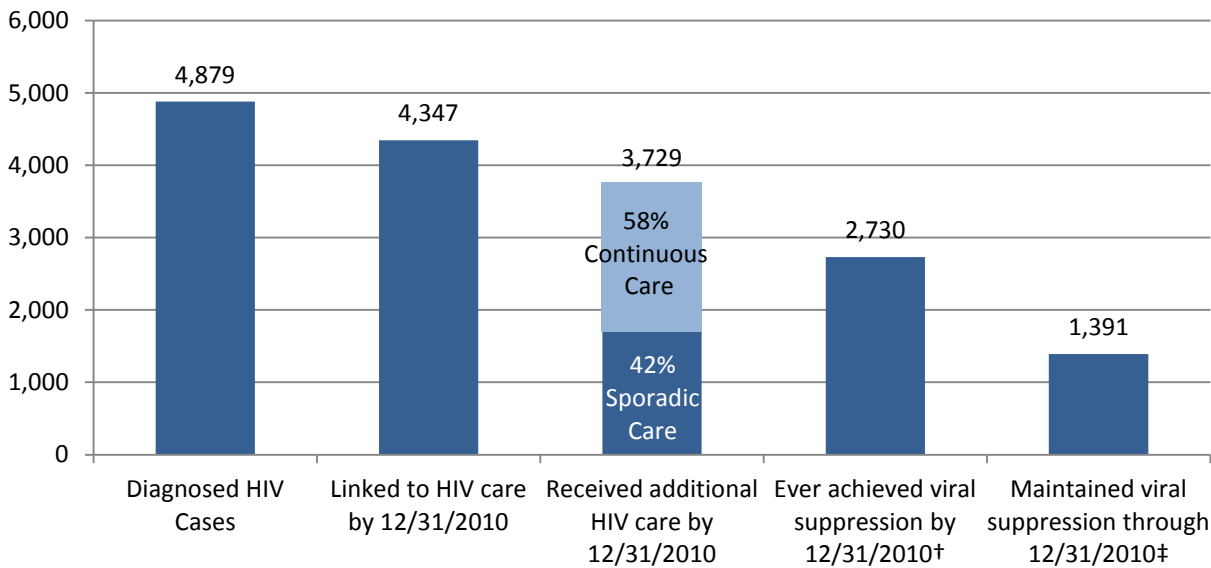
Sources of data

- AIDS Drug Assistance Program (ADAP);
- Ryan White Services Report (RSR);
- Data from the enhanced HIV/AIDS Reporting System (eHARS);
- HIV/AIDS laboratory reporting data

Adherence to antiretroviral medications for HIV-positive persons

As set out previously, HAHSTA developed a Treatment Cascade that illustrates the core aspects of the testing to care continuum. Adherence to achieve viral suppression is the ultimate goal of for every HIV positive person; and the goal is to both literally and figuratively “raise the bar” on the Treatment Cascade. HAHSTA regards the evidence of adherence, with some exceptions, virologic response to treatment.

HIV Continuum of Care for HIV Cases Diagnosed in the District of Columbia, 2005-2009



†At least one viral load test result prior to 12/31/2010 was <400 copies/ml.

‡All subsequent viral load test results were ≤ 400 copies/ml.

HAHSTA's policy is that treatment adherence is part of the routine responsibility of all providers of funded services. Promoting adherence to not only medications but also medical care is also an activity expected of HAHSTA funded providers of ambulatory outpatient medical care, medical case management, and mental health and substance abuse services in DC. These providers are funded by CARE Act funds. It is a responsibility shared by physicians, physician assistants, nurses, pharmacists and other clinical care providers. It is HAHSTA's policy that successful treatment of HIV infection requires the cooperation and coordination of a complex network involving the client, his/her social network, professional providers of various disciplines, a health care delivery system designed to meet client needs, and government policies that support these efforts. Treatment success requires the commitment and efforts of the entire health care delivery network. HAHSTA set this out clearly in the Part A request for applications and in the development of the conditions of award for all grantees. HAHSTA's outpatient grantees track viral suppression rates per provider and is developing a system by which this information is routinely fed back to providers for improvement of services. As such, the funded providers who incorporate adherence into their programs are ten Ryan White funded HIV medical providers, 18 medical case management providers and eight HIV providers that also provide mental health services.

Intensive Treatment Adherence

The only direct funding for treatment adherence that HAHSTA provides is for intensive adherence support programs, where HAHSTA seeks to improve the number of vulnerable clients that are ready to start ART, on ART, staying on ART, and responding fully to ART as evidenced by viral suppression. HAHSTA currently funds seven providers in the 2011 grant year with Ryan White funding for intensive treatment adherence support. These organizations are a mix of primary care sites, community based organizations targeting populations at risk such as transgender, MSM, and pediatrics clients. In grant year 2011, HAHSTA funded providers served 819 individuals through targeted treatment adherence services. The strategy is to support intensive, population specific adherence programs that can demonstrate strong outcomes and retention among clients on ART beyond the routine treatment adherence services that are part of core medical care. Targets for intensive treatment adherence programs include individuals who have known barriers medication to adherence, who have previously failed on ART regimens, or who are at increased risk for failure. Other sub-populations may include persons starting ART for the first time and have indications that early intensive supports may improve long-term results. Additionally, programs demonstrate the ability to link clients into additional support services that enhance their medical outcomes such as medical nutrition therapy and food banks. Strategies that these funded program use include: basic HIV education series; medication management by use of pill boxes, alarm clocks, reminders, modified directly observed therapy (MDOT); side effects management; provision of prescription copays; prescription refill programs and medication diaries.

Medical Case Management

The creation of medical case management (MCM) guidelines for DC (see intervention #7) with its focus on outcomes mandates MCM programs to directly provide or link their clients to treatment adherence services. An assessment of adherence support needs and client education begins soon as a client enters MCM and continues as long as a client remains in MCM. Treatment adherence counseling is an on-going process, which changes as the client's needs, goals, and medical condition change. These guidelines set out how the medical case manager must incorporate treatment adherence at every stage of the MCM process. HAHSTA is developing indicators to evaluate the rates of viral suppression as a marker of adherence for those who receive medical case management services and support.

Community Health Workers

In consideration of: 1) the role that social determinants of health play for the initiative's prioritized populations, 2) their need for more direct and personalized assistance than the current system can provide, 3) the opportunities in DC with healthcare reform to test systems-level access to care strategies, and 4) the Community Health Worker (CHW) evidence base, HAHSTA is pursuing this initiative that will involve the creation and systemization of a network of peer CHWs serving primarily low-income African-Americans living in Wards 5-8, the wards with some of the highest poverty rates, the large majority of whom will be women. CHWs will identify out-of-care PLWH/A, build peer-based trust and inform them about living with HIV, provide personalized assistance to help them enter and navigate and remain within service systems, and support them throughout the early part of their medical care until they become fully engaged.

There is a growing body of research on the CHW workforce and its effectiveness. In the past few years alone, there have been over a dozen published scientific studies examining CHW program design issues, outcomes, and cost-effectiveness, including at least nine studies that looked at health insurance enrollment, healthcare utilization and maintenance, or chronic disease management. Research instills initial confidence that CHWs can be a cost-effective strategy for increasing healthcare utilization and improving health outcomes, though more rigorous research is needed, particularly related to HIV/AIDS. Research supports the notion that CHWs are effective due to the cultural, linguistic, ethnic, and/or other experiences they share with the populations they serve (see intervention 7).

Building Capacity of Providers

In partnership with the DC AETC, HAHSTA supports an annual treatment adherence workshop for nutritionists, case managers, peer advocates and medical professionals. In addition, through a contractor, HAHSTA offers a treatment adherence training series, in-service programs for licensed health care professionals, and treatment adherence roundtables.

Research

DC is also one of the two sites in the country for HPTN 065, the Testing, Linkage to Care Plus (TLC+) that is evaluating the feasibility of a new model of treatment adherence compared to standard of care. The data from this study will inform the implementation of treatment adherence across DC.

Viral load measurements and Adherence

The purpose of adherence is viral suppression and improved clinical outcomes and reduced transmission. HAHSTA is exploring different means of measurement and tracking of this important indicator.

Community Viral Load

HAHSTA, through an academic center partnership, measured the Community Viral Load (CVL) in DC using available viral load data reported to the HIV/AIDS surveillance system between 2004 and 2008. CVL is described as the mean of the most recent viral load test of HIV infected individuals within a geographic area during a specified time period. CVL has been used as both a means of measuring HIV incidence and ART coverage.

HAHSTA examined differences in mean viral loads among subgroups, examined trends over time, and looked at the geographic distribution of the viral load data as compared to poverty rates and high school education. Of the people with viral load data, the majority was male, black, infected through male-to-male sexual contact, were AIDS cases and lived in the more impoverished areas of the city, Wards 5,6,7, and 8. The overall mean viral load for these cases was 55,879 copies per milliliter. The highest viral loads were among females, children, blacks, and persons infected through heterosexual contact, injection drug use and other modes of transmission. The highest mean viral loads observed were in areas with the highest poverty, unemployment,

and lowest proportion of high school graduates. Over time, the mean viral load significantly decreased but this decrease was not significantly related to the number of HIV/AIDS cases reported during this time period. Findings suggest that DC's mean viral load is extremely high compared to other jurisdictions (e.g., SF, Vancouver, NYC) but is consistent with DC's HIV/AIDS surveillance and epidemiologic data which reflect a severe and generalized epidemic.

Of the cases living with HIV/AIDS between 2004 and 2008, 7,556 (48.1%) HIV/AIDS cases had at least one VL reported in 2004-2008; mean CVL was 55,879 (95% CI: 48,881-62,877) copies/ml and total CVL was 422,176,120 copies /ml. The completeness of the viral load data showed an increase over time. In 2004, DC had VL data on about 5% of cases but by 2008, had available data on 33% of cases. Of the cases living with HIV/AIDS between 2004 and 2008, 48.1% (7556) had at least one viral load test reported to the system. The mean viral load was measured using the most recent viral load reported for a person in a particular time period. For example, if someone had a viral load in 2004 and another one in 2008, the 2008 value was used to calculate the mean. The total viral load of 422,176,120 was reflective of the number of persons for whom there was data. Therefore as the completeness of the data increased, so did the total viral load.

HAHSTA is examining the use of mean viral load as a proxy for receipt of care and also a reflection of an individual's level of infectiousness. The total viral load is driven by the amount of available data but may indicate the total amount of virus circulating in the community. Mean and total CVL are extremely high compared to other jurisdictions but consistent with DC's HIV/AIDS surveillance and epidemiologic data.

Viral Suppression

In addition to mean and total viral load measurements, HAHSTA evaluated the extent of viral suppression. At the end of 2008, among the 4,684 people who had data, preliminary analysis showed that 57% had a viral load under 400 copies per milliliter (as an initial indicator for viral suppression). The conclusion cannot be drawn that the rest were treatment failures, as gaps in essential information such as who was eligible for ART and who was actually on ART is missing. With the scale up HAHSTA's MAVEN database and DC Cohort database (see intervention 8) this data will be available. As the completeness of viral load data improves, these data will be useful markers to assess HIV/AIDS epidemic trends, measure access and impact of care and treatment and serve as indicators of the viral burden in the population allowing the development and monitoring of targeted interventions in high viral load areas. On the provider level, more complete data will permit the evaluation of viral load suppression for each individual served by an HIV medical provider. This will encourage the provider, based on the medical home model, to appropriately collaborate with other qualified professionals to critically evaluate the viral suppression status of his/her entire patient panel and determine the role of treatment adherence in cases of incomplete suppression. Each patient can then receive necessary treatment adherence education and supports and regimen adjustments if necessary. HAHSTA's data currently allows for an assessment of the proportion patients with viral suppression per HIV treatment agency, with the important caveats of incomplete reporting and unknown treatment status. With the scale up of HAHSTA's MAVEN database, DC Cohort database and improved surveillance, specific provider panel information will be available over the course of the project period.

Local investment in promoting adherence to antiretroviral medications for people living with HIV, 2008-2010

	2008		2009		2010	
	Amount (\$)	% (+/-)	Amount(\$)	% (+/-)	Amount (\$)	% (+/-)

Local Resources						
Adherence	Unknown*	-	Unknown*	-	Unknown*	-
Federal Resources						
HRSA Part A	\$2,357,183	-	\$2,203,238	-7%	\$2,405,663	9%
HRSA Part B		-	\$331,495	100%	\$750,000	144%

* DC will strengthen partnerships with DC Health Care Finance

Sources of data

- AIDS Drug Assistant Program (ADAP);
- Ryan White Services Report (RSR);
- Data from the enhanced HIV/AIDS Reporting System (eHARS)
- HIV/AIDS laboratory reporting data
- Medicaid data
- National HIV Behavioral Surveillance Survey (NHBS)
- Surveys from ongoing HIV Prevention Trial Network (HPTN) 065
- Community Service Assessment.

STD screening for HIV-positive persons

Studies have shown that identification of HIV infection can lead to a reduction in risky sexual behaviors. However, a significant number of HIV positive individuals continue to have concomitant sexually transmitted diseases (STDs). Identification of this sub-population will allow DC to focus efforts on HIV positive individuals not only to halt HIV transmission but to also treat their co-morbid disease. Interruption of HIV transmission is consistent with the NHAS goal to reduce the incidence of HIV.

STD screening policies

Outpatient HIV medical care supported by HAHSTA includes, by definition, adherence to nationally accepted guidelines and standards. STD and TB screening and treatment, TB and Hepatitis screening and vaccinations are the standard of care for DC’s funded HIV medical care providers. These activities are mandated through grant agreements and measured through required reporting indicators as a pre-requisite of continued funding. This screening occurs within the HIV medical outpatient clinic as part of routine care. HIV positive individuals are not linked to external entities for these services. There is national consensus that HIV positive individuals should be screened for STDs annually. Historically, this annual screening has been interpreted as performing at least a syphilis test each year. However, HAHSTA recommends that this be expanded to include anatomic site-specific gonorrhea and Chlamydia testing.

HAHSTA follows the “Primary care guidelines for the Management of Person with infected with the HIV virus: 2009 Update by the HIV Medicine Associations of the Infectious Diseases Society of America and the CDC Sexually Transmitted Diseases Treatment Guidelines. These guidelines informed the recently updated HAHSTA/Metropolitan Planning Council of DC Eligible Metropolitan Area’s Outpatient Ambulatory Medical Care Standards that include STD screening for HIV-positive persons.

To ensure performance of annual STD screening according to guidelines, HAHSTA performs regular quality chart reviews for all CARE Act funded outpatient HIV medical care sites. These audits verify the extent to which guidelines were followed and allow for corrective action plans for those that are not.

In grant year 2010, the percentage of new HIV primary care patients with evidence of annual STD screening was low within Ryan White funded primary medical provider practices. The percentage of clients screened for all STD's was low. Syphilis was most consistently screened for in both new and continuing clients with more than half of the sample being screened. Less than 30% of the sample was screened for all three STDs (syphilis, gonorrhea and Chlamydia). There were not significant differences between CARE Act and other payer source clients.

Outcome Indicator – New Clients	CARE Act	Other Payer Sources	All Payer Sources
	% (n=206)	% (n=391)	% (n=597)
Percentage of HIV-infected clients screened composite STDs (Gonorrhea, Chlamydia, Syphilis) in the last 12 months	16.0	18.9	17.9
Percentage of HIV-infected clients screened for Gonorrhea only	20.9	21.7	21.4
Percentage of HIV-infected clients screened for Chlamydia only	20.9	22.0	21.6
Percentage of HIV-infected clients screened for Syphilis only	61.7	57.5	58.9

Outcome Indicator – Continuing Clients	CARE Act	Other Payer Sources	All Payer Sources
	% (n=67)	% (n=84)	% (n=151)
Percentage of HIV-infected clients screened for all three STDs (Gonorrhea, Chlamydia, Syphilis)	26.9	32.1	29.8
Percentage of HIV-infected clients screened for Gonorrhea only	37.3	35.7	36.4
Percentage of HIV-infected clients screened for Chlamydia only	37.3	36.9	37.1
Percentage of HIV-infected clients screened for Syphilis only	71.6	82.1	77.5

STD Clinics

Although STD screening of HIV positive individuals occurs within the primary care clinics, there are two STD clinics in DC. One is the DOH Southeast STD Clinic staffed by DOH staff. The other is the Whitman-Walker Clinic's Tuesday and Thursday evening STD clinic (the Gay Men's Health and Wellness Clinic, partially

funded by DOH through CDC-funding). The HAHSTA-CDC medical epidemiologist works closely with the SE STD Clinic Physician-in-Charge to ensure that clients are screened and treated according to CDC guidelines / recommendations. This process includes relevant presentations, case review, and on-going technical assistance. In addition, the HAHSTA-CDC medical epidemiologist works within the Whitman Walker clinic. At these sites, surveillance data reveals that HIV positive individuals are found to be infected with STDs. DOH disease intervention specialists are placed at these clinics, and as laid out in intervention 21, this will provide an opportunity for intervention at point of diagnosis not only for prevention messages but the offering of partner services.

HIV/STD co-infection

This data will allow for more targeted screening efforts and joint HIV and STD prevention messaging to populations at high risk for co-infection. DC has high rates of STD morbidity and high rates of HIV and STD co-infection. Data shows that a history of STD infection correlates highly with HIV infection. This fact informs the goal in intervention 12 where the focus is prevention of HIV infection in those with a history of repeated STD infections. Currently, there are only three sexually transmitted diseases (STDs), Chlamydia, gonorrhea and syphilis (primary and secondary) where surveillance data is routinely collected. DC reporting laws require all clinicians treating or knowing of a patient with a suspected or documented reportable STDs and all laboratories with a test result or isolate suggesting infection by a reportable agent of an STD to report their diagnoses to HAHSTA.

2004 to 2008. DC data revealed that between 2004 and 2008, 95% of syphilis cases were in men, with the majority in MSM. Of the cases co-infected with HIV and syphilis, nearly half (49.7%) of cases were diagnosed with syphilis more than 6 months after the HIV diagnosis. Most cases that were infected with HIV and syphilis had MSM sexual contact as their mode of transmission, accounting for 71.9% of cases from 2004-2008.

2005 to 2009 In 2009 HAHSTA expanded the analysis to include Chlamydia and gonorrhea in addition to Syphilis. For Syphilis: Among the 330 persons co-infected with HIV and syphilis between 2005 and 2009, almost all (n=326) were men. More than half of these men (54.6%) were black and approximately three-quarters (74.5%) were diagnosed with HIV between 20 and 39 years of age. In addition, three-quarters (72.1%) of the male HIV/syphilis co-infections were infected with HIV more than 3 months prior to syphilis infection. For Chlamydia and gonorrhea: Four hundred ninety (490) HIV positive individuals were co-infected with Chlamydia and 564 HIV positive individuals were co-infected with gonorrhea between 2005 and 2009 as well. The majority of these co-infected cases were male (63.5% for HIV/Chlamydia co-infection and 80.5% for HIV/gonorrhea co-infection) and black (80.6% for HIV/Chlamydia co-infection and 79.4% HIV/ gonorrhea co-infection). The majority of these cases were infected with HIV between 20 and 39 years of age (80.6% for HIV/Chlamydia co-infection and 70.4% HIV/ gonorrhea co-infection), similar to HIV/syphilis co-infections. Over two-thirds (67.3%) of these co-infections (chlamydia and HIV) were infected with HIV more than three months prior to their Chlamydia infection. Approximately two-thirds (64.4%) of those co-infected with HIV and gonorrhea were infected with HIV first.

Similar to the analyses above, DC sought to determine the risk factors associated with concomitant HIV and syphilis diagnosis in DC. DC reviewed cases diagnosed and reported to the DC syphilis registry and DC HIV/AIDS surveillance databases between 2001 and 2007. These cases were electronically linked using a probabilistic matching algorithm. Descriptive analysis of the matched and unmatched HIV cases was performed and logistic regression was conducted to identify any potential associations between HIV infection and the diagnosis of syphilis. Variables included in the logistic regression model included sex, race, mode of

HIV transmission, clinical stages of syphilis and HIV, age at HIV diagnosis, socioeconomic status, and health insurance status. A total of 8,805 HIV cases were matched to 19,029 syphilis cases. 455 (5.2%) syphilis cases matched to those captured in the HIV surveillance database. Among these 455 cases: 408 (89.7%) were men; 312 (68.6%) were black; 273 (64.6%) were men who have sex with men (MSM) or MSM/IDU; 181 (39.8%) were 30-39 years at the time of HIV diagnosis; 146 (32.1%) were specifically either primary or secondary syphilis. MSM and MSM/IDU were significantly more likely to be diagnosed with both HIV and syphilis when compared with heterosexuals (aOR, 1.92 [95% CI, 1.40-2.62] and 2.3[95% CI, 1.35-3.93], respectively). Women were less likely to have a concomitant HIV-syphilis diagnosis compared to men (aOR, 0.60 [95% CI, 0.28-0.58]). For each ten-year age interval increase, the risk of concomitant HIV-syphilis infection decreased; individuals diagnosed with HIV in the oldest age group (≥ 50 years old) were significantly less likely to be concomitantly diagnosed with syphilis compared to those 13 to 29 year old (aOR, 0.24 [95% CI, 0.15-0.36]).

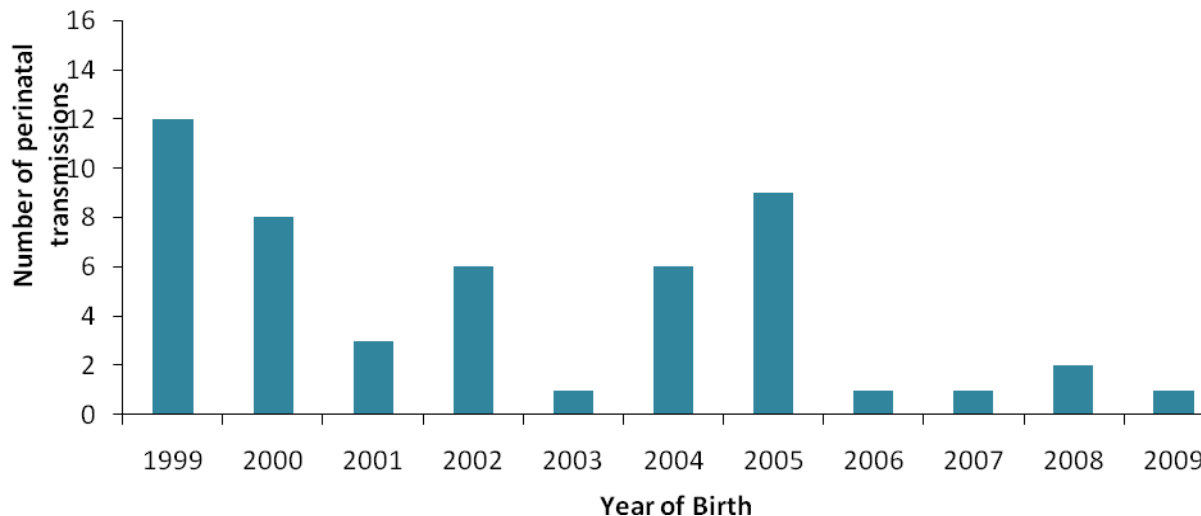
This data show that in addition to improving generalized STD screening for all HIV positive individuals, certain sub-populations at high risk should also be targeted in DC. These include black males, MSM, and those who were diagnosed with HIV between the ages of 20 and 39.

Sources of data that inform this program include:
 STD Surveillance Data
 eHARS

Implement prevention of perinatal transmission for HIV-positive persons

The efforts to prevent perinatal transmission of HIV in DC have resulted in zero mother to child infections in 2009 out of 8441 deliveries. This was an improvement from 2008, where there were 8316 deliveries and two documented cases of perinatal transmission of HIV. In 2006, DC had accounted for 13% of all perinatal HIV transmissions in the US. It is imperative that current efforts are sustained to reach the NHAS goal of nationwide reduced HIV incidence.

Figure 1. Perinatal HIV/AIDS Infections by Year of Birth in the District of Columbia, 1999-2009 (N=50)



Policies

The adoption, dissemination and implementation of the policies and procedures have contributed to the reduced transmission rate. HAHSTA has worked to promote these recommendations: CDC's (Revised Recommendations for HIV Testing of Adults, Adolescents and Pregnant Women in Health-Care Settings, 2006); the American College of Obstetricians and Gynecologists (ACOG) (Prenatal and Perinatal Human Immunodeficiency Virus Testing: Expanded Recommendations, 2008); and the US Public Health Service Task Force (Recommendations for the Use of Antiretroviral Drugs in Pregnancy HIV-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV Transmission in the United States, 2008).

Routine testing

Mother to child transmission (MTCT) of HIV can only result if the mother is HIV positive and does not take ART prophylaxis to prevent transmission. The mother must first know her status to enable this to occur. HAHSTA estimates that there are approximately 30 to 50% of people who are HIV infected and do not know their status (see intervention 1). The proportion of these who are females of childbearing age is not known. The high number of undiagnosed positives renders it imperative that widespread testing remains a cornerstone of DC's efforts to halt MTCT.

Routine testing in first and third trimesters has been the standard of care in DC since 2007. All seven labor and delivery (L& D) suites and the DC Birthing Center (DCBC) perform HIV screening on pregnant women in both the first and third trimesters. Efforts that contributed to this success include:

Hiring of a PMTCT coordinator in 2008 to solidify partnerships with all L & D suites and the DCBC; lecturing at clinical grand rounds at area hospitals, built capacity with the obstetrics and gynecology and delivery departments to identify missed opportunities; partnering with the Ryan White AIDS Education Training Center (AETC) to develop targeted provider training sessions; create educational materials for both patients and practitioners

Partnerships with other government entities such as the Perinatal and Infant Health Bureau (PIHB) in the Community Health Administration (CHA) (which oversees the federally funded DC Healthy Start program) for the development of educational materials and educating their staff and outreach workers on the impact of HIV/AIDS and necessity of screening pregnant women. Their staff performed outreach services to engage women in early prenatal care and perform rapid HIV testing on their mobile unit.

Improving monitoring and evaluation

DC's HIV testing data on the sites that perform first and third trimester testing is still incomplete. In 2009 HAHSTA partnered with the DC Office of Vital Statistics to include information on HIV routine testing in the first and third trimester on forms used to populate DC's Electronic Birth Registry System (EBRS). The EBRS captures demographic and health information such as whether or not: the mother received prenatal care; was tested in both the 1st and 3rd trimester of her pregnancy and if not, why not (i.e., already HIV positive); an HIV positive mother received the appropriate interventions to prevent perinatal HIV transmission. Over the project period, HAHSTA will further collaborate to improve the quality of responses on these forms. This will include training of designated staff that input data into the forms and then into EBRS to improve data accuracy and completeness. With implementation of HAHSTA's new integrated data system, MAVEN, data from EBRS will be imported monthly to continuously monitor implementation of routine testing. In addition, HAHSTA established an agreement with PIHB for the actual use of the data stored in the EBRS. The data is critical to

assess the care provided to HIV+ pregnant women, identify missed opportunities for prevention, identify providers who are not delivering the standard of care recommended for testing and the care of all pregnant women so as to reduce perinatal HIV transmission. This will be a platform for the development of protocols for implementation of a more comprehensive program. In addition to being imported into MAVEN, this data will also be matched with HAHSTA's e-HARS database and will contribute to more complete and refined data for program implementation.

Other efforts

HAHSTA collaborated with the Department of Health Care Finance to add "Maternal HIV status" as a composite measure, the Perinatal Outcome Performance Measure. This measure addresses the HIV status of the mother as part of an overall measure of infant health. This measure is more indicative of the mother receiving comprehensive prenatal care and will provide a baseline assessment of HIV screening during pregnancy, allowing an estimation of the number of perinatal infections that may have been averted. This is currently being calculated and should be available in the next quarter.

HAHSTA received funding for the Fetal and infant Mortality (FIMR)/HIV Prevention Methodology Project from October 2009-September 2010. Technical assistance to continue the program was provided from October 2010 to November 2011. This project allowed a Case Review Team to view perinatal HIV exposure and/or perinatal HIV infection as sentinel events so as to identify any missed opportunities in the mother's prenatal care.

The current collaboration with the Infant Mortality Review Committee, which is housed in the Office of the Chief Medical Examiner, has provided numerous opportunities. The team includes representatives from multiple public and private health and social agencies. This multidisciplinary committee not only allows for a forum to discuss HIV testing of pregnant women, but also to discuss the overall health of the pregnant woman. The current Infant Mortality Review Committee has also agreed to function as part of the Case Review Team for the FIMR/HIV Prevention Methodology Project. Being able to utilize the experience of those familiar with review cases will accelerate progress.

HAHSTA also collaborated with non-governmental agencies such as the Elizabeth Glaser Pediatric AIDS Foundation to design job aids on the treatment of HIV during pregnancy and on the use of rapid testing in L & D suites.

Safe Conception and Safe Motherhood

During the project period DC will explore a comprehensive strategy, the concept of "safe motherhood". Here, providers and consumers will be educated about supporting HIV positive women who are considering pregnancy. An area that is seldom explored in HIV prevention is the ability to support HIV positive women in seeking medical support around safe and healthy pregnancies. While the effectiveness of HIV screening during pregnancy and the availability of prophylactic measures in order to support HIV-free deliveries is undeniable, the stigma towards HIV positive women who decide to have children can prevent them from seeking support to do so. As part of research for the HAHSTA social marketing program, a focus group was asked whether HIV positive women should have children and whether HIV medications can block transmission between mother and child. Two-thirds of the participants said that HIV positive women should not have babies and medications are not effective. Offering both HIV positive women and their providers education about safe conception and safe

motherhood can empower them to seek medical advice and increase the likelihood of planned and medically supervised pregnancies thus lowering the risk of perinatal transmission of HIV.

The tables below provide data on women who were newly diagnosed with HIV in the year of infant birth the number of women who were newly diagnosed who were of child bearing age each year; and the number of women who were newly diagnosed and are in care. With this data, HAHSTA will be able to better determine the scope of need to mount a comprehensive response.

Number of women who give birth annually in DC

Year of infant birth	Number of women
1999	7,049
2000	7,519
2001	7,482
2001	7,363
2003	7,480
2004	7,771
2005	7,787
2006	8,350
2007	8,706
2008	7,919
2009	7,270

Number of HIV positive women who give birth every year in DC

Year of infant birth	Number of HIV+ women
1999	77
2000	54
2001	65
2001	39
2003	45
2004	56
2005	45
2006	42
2007	53
2008	57
2009	74

Number of newly diagnosed HIV positive women of childbearing age in care

Year of HIV diagnosis	All HIV+ women of childbearing age	Number of HIV+ women in care in 2009		Number of HIV+ women in care in 2010		Number of HIV+ women in RW 2009	
		N	%	N	%	N	%
2005	199	111	55.8%	106	53.3%	---	---
2006	213	105	49.3%	116	54.5%	---	---
2007	253	126	49.8%	144	56.9%	---	---
2008	201	114	56.7%	117	58.2%	---	---
2009	139	108	77.7%	98	70.5%	27	19.4%
Overall	1005					204	20.3%

The efficacy of a perinatal or prevention of mother to child transmission (PMTCT) program depends on the capacity of the health care system to deliver services and the willingness of women to accept HIV testing. Adequate public support of policies that encourage first and third trimester HIV screening provides the healthcare system with the ability and support to follow through with PMTCT interventions. Essential elements of PMTCT programs include: safe motherhood, testing all pregnant women for HIV in the first and third trimester; CD4 tests to stage disease and ensuring that all women have access to care. After delivery, PMTCT services must include sustained education and support for safer infant feeding options; HIV testing infants;

family planning counseling and linkage to care and treatment programs. PMTCT efforts that effectively engage women during pregnancy offer opportunities to help mothers protect their infants from infections. This is the vision that HAHSTA has for its perinatal program.

Cost

Approximately \$150,000 from the CDC prevention grant supports the PMTCT Coordinator which is the primary item funded by HAHSTA. In addition to HAHSTA, prevention activities were carried out by nine other agencies – the seven hospitals, the AETC and PIHB. Funding from FIMR is \$15,000. DC local investments have supported a strong social marketing campaign and creation of a widely disseminated provider packet/toolkit. The total amount of the social marketing contract was \$750,000 which was used to create PMTCT materials.

Implement ongoing partner services for HIV-positive persons

The ultimate goal of Partner Services (PS) is to identify newly infected HIV positive individuals. Partner Services (PS) continues to be an effective public health intervention. DC Partner Services is primarily focused on the sexual and injection drug-using partners of individuals who test positive for HIV and other STDs at the DOH STD clinic and within HAHSTA funded provider practices. In 2008, HAHSTA, consistent with the current vision of Program Collaboration and Service Integration (PCSI), absorbed the STD and TB bureaus into HAHSTA. HAHSTA then created a system of disease investigation that would enhance the capacity of disease intervention specialists (DIS) to follow up on both STD and HIV infections through leveraging existing resources. HAHSTA revised its PS protocols and procedures to reflect its STD and HIV integrated approach in 2009.

Partner Services 2011:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Reporting Source	# of newly reported HIV+ individuals reported to the health department	# of newly reported HIV+ clients offered PCRS	Of (B), # of HIV clients who agreed to PCRS	Of (C), # of Partners elicited (Partners elicited by provider v. partners elicited by DIS)	Of (D), # of partners notified* (Partners elicited by provider v. partners elicited by DIS)*	Of (E), # of partners receiving an HIV test.**	Of (F), # of partners with a new HIV positive test***
Public Providers	30	27	19	123	45	15	2
Private Providers	98	70	38	0	0	14	2
Corrections	0	0	0	0	0	0	0
Total	128	97	57	123	45	29	4

Number of clients enrolled in Partner Services (PS)	Total number of partners elicited from clients	Total number of partners notified	Number of partners referred to CTR	Number of partners referred to other services and name of service	Number of partners tested	Number of partners who tested positive***	Number of high- risk partners who tested negative
Public Providers	123	45	45	1 TB Clinic	15	2	13
Private Providers	0	0	0	0	14	2	12
Corrections	0	0	0	0	0	0	0
Total	123	45	45	1 TB Clinic	29	4	25

Internal Strategy:

Partner Services in 2012 and beyond will include the following:

1. Utilizing Provider Referral Partner Services - DIS will elicit, locate, and refer partners for; counseling, testing, and /or treatment. These services are offered to:
 - All patients diagnosed with primary, secondary, or early latent syphilis
 - All newly- diagnosed (i.e., within past 12 months) HIV patients or previously positive HIV patients who are newly diagnosed with another STD (early syphilis, gonorrhea, Chlamydia).
 - All CT/GC patients identified through HAHSTA’s School-based Screening and Youth Employment programs
2. Utilizing Patient Referral Partner Services- DIS will counsel patients and encourage them to notify their partners to get tested and/or treated. Patients are also informed about inSpot, an internet service whereby they can notify their partner anonymously. This service is offered to:
 - All CT/GC patients who are diagnosed at the STD clinic
 - As an alternative for patients who refuse Provider Referral approach.
3. Utilizing Surveillance data to identify previous disease/infection histories; identify providers/testing sites that service high-risk populations (MSM, homeless) and identify potential screening sites- gay bars, bath houses etc.
4. Developing a new integrated data management system and is documenting and re-assessing all business process. HAHSTA is identifying areas to streamline processes and capture missing data fields. The data will be entered by providers and analyzed regularly to make joint decisions on programmatic changes and guidance based on this data.
5. Embedding DIS- HAHSTA has embedded a DIS at a high positivity provider site and is exploring the possibilities of embedding additional DIS in other such high positivity sites.

External Strategy:

HAHSTA relies on a total of ten staff members to respond to the demands of Partner Services. These ten include; 6 DIS, 2 Front Line Supervisors, and 1 Internet Partner Services Coordinator and 1 Field Operations Manager. Because of these limited resources, HAHSTA engaged in capacity building activities. A comprehensive training plan was implemented that provided clarity to providers regarding the important role they play in effectively eliciting partners of new HIV positive individuals. The training focused on building the providers' capacity to effectively enroll clients and elicit partner information that was complete enough to be used to contact and offer HIV tests to those who have been exposed to HIV. The sessions also dispelled myths and pre-conceived misperceptions pertaining to partner services. The providers attending these training were also supplied with Partner Notification forms to assist them with capturing and recording partner information. The provider was instructed to complete the form and submit it to HAHSTA. The information from these forms would be used by DIS to initiate field investigative activities. After analysis of the data received from the provider Partner Notification forms over a 2-year period, it was found that most providers were not eliciting partners and the DIS had to re-interview the majority of patients to elicit partner information. As result, it was determined that the provider training was not cost effective and the activity was terminated.

In addition to the training, HAHSTA also developed a resource tool-kit that consists of a handbook with step-by-step scripts on soliciting partner information, provider reference cards, CD-ROM with forms, electronic versions of materials and literature reviews, consumer brochures, and posters. E-cards are also hosted on the HAHSTA web site for individuals to notify partners. Although the provider partner services trainings have been discontinued, this toolkit is still being distributed to providers in hopes that they will promote partner service when interacting with their patients.

Cost

Partner Services activities have never been budgeted separately from the federal funds that support these activities. Approximately \$800,000 dollars for Partner Service staff. This comes from two separate CDC funding streams; the STD grant and the flagship prevention grant.

Risk reduction interventions for HIV-positive persons at risk of transmitting HIV

HAHSTA does not have separate policies for the provision of risk behavioral screenings for HIV positive patients. Behavioral risk screening is considered part of outpatient primary care and medical case management. As such, the Outpatient Ambulatory Care (OMAK) standards mandate comprehensive behavioral screenings for HIV positive patients. In addition, the Medical Case Management (MCM) guidelines produced by HAHSTA, mandate completion of a detailed behavioral risk assessment. Adherence to these standards and guidelines are a pre-requisite for continued funding in the areas of OMAK and MCM within the CARE Act Program. The standards and guidelines have been disseminated to all CARE Act-funded providers and are available on HAHSTA's website. Medical Case Management providers have received extensive training on the guidelines. While no specific trainings on the OMAK standards have been delivered, the performance of risk screenings is an indicator of measurement during regular quality care chart reviews. If providers fall below the performance standard, corrective action plans are instituted and capacity building will be offered.

To further the effective delivery of behavioral screening services, HAHSTA is developing an initiative called "Prevention with Positives". This is a modification and adaptation of existing tools and will include the

consistent and repeated delivery of prevention interventions to PLWHA in care and treatment settings by clinicians. The strengths of this clinic-based approach include linking the prevention of HIV transmission to the treatment of HIV, offering repeated opportunities to intervene in high-risk behavior, and serving as a source of information, support and linkage to needed services for the HIV infected individual.

The five areas of focus this initiative will be: 1) disclosure for social support; 2) treatment adherence for viral suppression; 3) mental health 4) substance abuse and 5) general prevention interventions such as giving out condoms.

HAHSTA is working with community partners and stakeholders and internally across bureaus (particularly across Prevention, Care and Partnerships, Capacity Building and Community Outreach) to develop these interventions. The plan is to also create user-friendly tools for both provider and client use. The goal is to empower clients to ask questions and thus be informed about the impact of these issues on their health outcomes. Provider competency and comfort with delivering these interventions will also be addressed.

In examining service utilization of HIV positive persons engaged in care through Ryan White funded service providers, in GY 2010 there were >5,000 substance abuse visits, >7,600 mental health service visits and >1,500 visits for targeted treatment adherence. When examining clinical indicators, there were over 650 people living with HIV treated for syphilis and other STDs. This demonstrates a continued need for risk screening and the requisite supportive services.

Cost

The budget for the implementation of interventions for HIV positive persons was \$695,000 which was distributed among seven agencies.

Linkage to other medical and social services for HIV-positive persons

HIV positive individuals in DC must be able to access services that will support them in achieving improved outcomes and quality of life. Competing priorities and co-morbidities have been shown to have an impact on access, retention and ability to achieve improved outcomes. In DC, HIV as a chronic disease underscores the need for proactive care coordination across clinical and non-clinical settings to address the full range of patients' needs and foster communication among disciplines. Appropriate linkage to specialty care and close coordination with other disciplines are essential to ensure good communication and holistic care. This is consistent with the second element of the NHAS, increased access to care and improved health outcomes, where other medical and social services, particularly housing, are recognized as being critical factors to improve health. For this project period, HAHSTA will focus on linking individuals in need to mental health and substance abuse services as well as ensuring people living with HIV and receiving services provided through HIV housing assistance through the Housing Opportunities for Persons living with AIDS (HOPWA) and Shelter Plus Care programs administered through HAHSTA are achieving better outcomes.

Housing

A strong and consistent body of research shows that housing status has an independent and direct impact on HIV risk behavior, access to care, and HIV medical outcomes, regardless of demographics, drug use, health and mental health status, or receipt of other services. Receipt of housing assistance is associated over time with reduced HIV risk behaviors and improved health outcomes. HIV-infected homeless individuals are seven to nine times more likely to have to have negative health outcomes, and homeless individuals are twice as likely to have missed doses of medication as those who are stably housed.

The affordability of housing in a given geographic area is generally characterized in terms of the area median income (AMI) per household. For the District of Columbia in 2010, the AMI was \$103,500. For housing to be considered “affordable,” the costs paid by a household on housing does not exceed 30% of household income. Those whose housing costs exceed this threshold are characterized as having a “housing burden.”

The “fair market rent” is established by the federal government, and is adjusted for the size of the unit and the broader housing costs. In the District of Columbia, the fair market rent for a one bedroom unit is \$1,289.

These circumstances create a nearly unmanageable housing crisis for low-income individuals. To rent at the fair market rate (\$1,289) without exceeding the “affordable” 30% of household income, a single person would have to have hold nearly three full-time, minimum wage (\$8.25 per hour) jobs.

Of these, HAHSTA applied a national estimate of housing need of 72%, yielding approximately 6,300 people in FY10 and 6,700 in FY11. This estimate is based on research completed nationally as well as HAHSTA’s own unmet need analysis completed as part of the five year Housing Consolidated Plan.

This number of low-income individuals with HIV who qualify for assistance is dramatically higher than the number of housing assistance “slots” available through federal funds. The monthly capacity at any one time for HAHSTA supported housing programs include:

Summary of HIV Housing Assistance Programs per Month

Funding Source	Program	Households
HUD - HOPWA	Tenant-Based Rental Assistance (TBRA)	325
HUD- HOPWA	Facility Based Housing Assistance	45
HUD – HOPWA	Short Term Rental, Mortgage and Utility Assistance	24
HUD – Shelter Plus Care	Tenant Based Rental Assistance	25
HUD – Shelter Plus Care	Sponsor Based Rental Assistance	16
District of Columba	Bridges Emergency Fund	10
TOTAL		445

HAHSTA notes that it allocates a higher proportion of its core housing assistance grants to direct housing subsidy than the national average, and has increased this proportion by improving efficiencies, reducing administrative costs and increasing the co-ordination of service between the housing assistance and CARE Act funded systems of services.

The average subsidy per client served through the HOPWA TBRA program is \$1,150 per month. As of March 1, 2011, approximately 839 households were on the wait list for the TBRA program. To provide subsidies to the households on the wait list would require approximately \$11.6 Million in subsidy payments. This compares to a total grant award for the current grant of \$14.1 Million for the greater eligible metropolitan area; of that, approximately \$8.6 Million supports housing assistance for residents of the District of Columbia.

HAHSTA continues to pursue all available options to enhance housing assistance services, and acknowledges that the need for housing assistance in the District of Columbia is substantially broader than the need for housing assistance by low-income people with HIV/AIDS. Options that are actively under pursuit include

- More funding
- Long-term investments, including rehabilitation of publicly-funded housing stock
- Support for increasing the income (and independence) of housing clients, such as enrollment into SSI and SSDI and Jobs training programs as a part of a housing plan
- Set-asides or other priorities within non-HIV specific housing programs, including Housing Choice (Section 8)
- Policy changes to establish priorities for people with HIV who are physically disabled, triply diagnosed, those less likely to be well served by other programs.

Given the limitations of an HIV housing program alone to provide for the magnitude of need, HAHSTA has focused on activities designed to increase income and independence. HAHSTA will collaborate with the Department of Employment Services (DOES) to maximize resources available to improve employment opportunities for recipients of the Tenant-Based Rental Assistance Program without incurring costs to be supported by the HIV housing assistance programs. This program will target individuals who, with the support of a complex array of employment skills building, housing, and support services, would be able to “graduate” from the program and become self-sufficient. Eligibility criteria include an HIV diagnosis, a demonstrated need for housing assistance, and the physical ability to work. Participants would be provided medical adherence support to promote active client participation in medical care and, if necessary, in medical therapies. Skills building would also increase the client’s health literacy. By promoting increased health literacy in this program, HAHSTA would expect to see improved health outcomes and better client management of HIV disease and any co-morbid health factors. DOES provides two Disability Navigators to assist TBRA voucher recipients into DOES Services. Disability Navigators will route clients to the appropriate employment track including back-to-work programs and employment readiness assessment to determine the most appropriate employment services for each client.

HAHSTA has facilitated connections among case managers and the housing entry program. While individuals await the assistance, HAHSTA has directed its housing entry provider to contact individuals on a regular basis and connect them to other opportunities for housing support and address any short-term needs that would jeopardize their housing stability, including one-time payments for unpaid rent or mortgage.

Substance Abuse and Mental Health

Increasingly, HIV-infected individuals present with co-occurring mental and substance abuse disorders. Although integrated services are most effective for treating people with multiple needs, the service delivery systems—health care, substance abuse treatment, and mental health care—are usually distinct and separate. These fragmented services create barriers to effective care for persons who need to interact with multiple systems. HIV-infected individuals often seek help from multiple organizations to obtain services and may not have the knowledge, resources, and/or behavioral skills to manage these interactions.

Some persons with HIV/AIDS are diagnosed with mental health disorders after being diagnosed with HIV, dealing with issues of anxiety, depression associated with the challenges and difficulties of being HIV-positive, disclosure and stigma. Others may have had a mental illness prior to being diagnosed with HIV. Mental illness can also impact disclosure of HIV status to others and may exacerbate risk behaviors that could lead to increased risk of transmission. Substance abuse is not only a risk factor for HIV transmission, it is also prevalent behavior that undermines the health of PLWHA and complicates HIV treatment adherence.

Evaluating Linkages to Substance Abuse and Mental Health Services

Local data suggests that there is significant unmet need related to mental health and substance abuse services. Nearly 45% of HIV positive heterosexuals and 61% of HIV positive IDU indicated they were depressed in the last month. For mental health over 1,300 people completed over 11,000 mental health visits and nearly 600 people completed over 6,000 substance abuse visits. Although these numbers are large, close to half of people living with HIV have not been in care for over 12 months, an indication that there is a need to expand the scope and scale of support services.

Routine monitoring and evaluation of need and service utilization and access for these two populations is needed to assess program structure and services, improve the quality and fidelity of programs through data use, and support efficient programming based on complete and accurate data.

- Diagnosed HIV positive individuals in care who need these services
- Individuals diagnosed with mental health and substance abuse disorders who are HIV positive and may not be aware of their status and who need both HIV services and mental health/substance abuse services

The focus during this project period will be the former. To obtain a service utilization baseline and evaluate linkages to these services, DC is implementing a new integrated monitoring and evaluation system, MAVEN. MAVEN will allow DC to assess a comprehensive matrix of referrals. Expanding the current collaboration with the Department of Mental Health (DMH) and Addiction Prevention and Recovery Administration (APRA) is necessary to achieve this. A collaboration will allow an assessment of service coverage, 2) assessment of funding streams for services across each administration 3) development of a comprehensive strategy to leverage resources to ensure maximum coverage of services to people living with HIV.

Useful health outcome indicators that will be used in the evaluation of this process, for both population groups include:

Percentage of injection drug users who had at least two HIV care visits within the last twelve months
Percentage of injection drug users with virologic suppression
Number of new AIDS diagnoses among IDU
Number of HIV-related deaths among IDU
Percentage of IDU who newly progress to AIDS in < 12 months

Strategies to Improve Substance Abuse and Mental Health Linkages

Linkage Workshops

HAHSTA is working with the Department of Mental Health (DMH) and the Addiction Prevention Recovery Administration (APRA) through the Substance Abuse and Mental Health Services Administration’s (SAMSHA’s) 12 Cities initiative to:

- Implement HIV testing, counseling, and navigation to link positive persons into care at the APRA centralized intake center.
- Implement HIV testing at the DMH intake center. For this initiative, HAHSTA has arranged training for DMH staff and will be providing start-up test kits.
- Pilot the Global Appraisal of Individual Needs (GAIN) short screener assessment at APRA, DMH and HAHSTA. HAHSTA advanced its own plans for mental health and substance use screening by using the GAIN short screener tool at the STD Clinic.

Medical Case Management

A key element in HAHSTA’s linkage strategy is the role of medical case management (MCM). HAHSTA currently supports 18 agencies to provide medical case management services to HIV positive individuals in DC. Nine of these agencies are also HIV primary medical care clinics. 18 are community-based organizations that serve specific HIV positive sub-populations, such as transgender, black MSM and the transiently housed. Over 75% of clients in Ryan White funded outpatient primary medical care have used the services of a medical case manager. In recognition of this, HAHSTA created a set of MCM guidelines for DC. The guidelines emphasize that medical case managers have joint responsibility with primary medical team for their clients’ clinical outcomes. As such, they must actively ensure their clients psychosocial and medical needs are addressed by linking them to the appropriate services or directly provide needed services. Medical case managers are required to review viral loads and CD4 counts and have established feedback sessions with the primary medical team. DC is one of very few jurisdictions that require this of all funded Medical Case Management programs. Central to these new guidelines is an *Acuity Scale*. The *Acuity Scale* places clients into one of four management levels: *intensive, moderate, and basic or self-management*. It has been designed to capture the most medically vulnerable clients and to encourage self-management by those capable of doing so. There are nine pre-defined situations or conditions, also referred to as “triggers” that automatically place clients into the highest management level. These are: **homelessness**; peri-incarceration; pregnancy without prenatal care; CD4 count below 200/mm³ concomitant with a viral load above 400 c/L; new diagnosis of HIV; **untreated mental illness**; new to antiretroviral therapy; not in care or re-engaging in care and non-adherence to HIV medication. These conditions require a higher degree of engagement by the medical case manager to ensure that the client is able to achieve optimal health outcomes and reinforce the necessity of primary care, adherence and retention support.

Evaluating the performance of medical case management staff is a function of a HAHSTA-funded MCM program. Within these new MCM guidelines, performance is measured by results achieved for the client. This is not to imply that “process” is not important – for example, how many calls were made to or on behalf of the client are necessary steps to achieving a positive outcome for the client - but they are not the desired end result. As such, with few exceptions, medical case managers’ performance will be evaluated based on the outcomes achieved for the client. The intended outcomes of MCM for HIV/AIDS patients include greater participation in and the optimal use of the health and social services, increased knowledge of HIV disease, delay of HIV progression, reinforcement of positive health behaviors and an overall improved quality of life. These are not short-term goals, and given the complex needs of clients, achieving them is not a straightforward process. HAHSTA is developing indicators to measure the effectiveness of these interventions based on these short- and long-term outcomes of individuals who receive MCM services.

Of continuing patients sampled in 2010 who utilized MCM services of the District, the screening and referral rates for substance abuse and mental health are below. These indicate the need for more services and linkage rates. Of note, the criterion for screening was a multi-point system that is currently being evaluated for its feasibility within MCM services.

Clients Screened for Mental Health Services	CARE Act	Other Payor Sources	Total
Screened for Mental Health	28	80	132
	19.6%	16.6%	21.1%
Not Screened for Mental Health	115	402	493
	80.4%	83.4%	78.9%
Total	143	482	625
	100.0%	100.0%	100.0%
Results of Mental Health Screens	CARE Act	Other Payor Sources	Total
Positive Screen	11	59	28
	39.3%	56.7%	21.1%
Negative Screen	17	45	104
	60.7%	43.3%	78.9%
Total	28	104	132
	100.0%	100.0%	100.0%
Referral Status of Clients with Positive Mental Health Screen	CARE Act	Other Payor Sources	Total
Referred for Mental Health Services	6	31	37
	54.5%	52.5%	52.9%
Not Referred for Mental Health Services	0	3	3
	0.0%	5.1%	4.3%
Currently Receiving Mental Health Services	5	25	30
	45.5%	42.4%	42.8%
Total	11	59	70
	100.0%	100.0%	100.0%
Clients Screened for Substance Abuse Services	CARE Act	Other Payor Sources	Total
Screened for Substance Abuse	94	360	454
	65.7%	74.7%	72.6%
Not Screened for Substance Abuse	49	122	171
	34.3%	25.3%	27.4%
Total	143	482	625
	100.0%	100.0%	100.0%
Results of Substance Abuse Screens	CARE Act	Other Payor Sources	Total

Positive Substance Abuse Screen	28	120	148
	29.8%	33.3%	32.6%
Negative Substance Abuse Screen	66	240	306
	70.2%	66.7%	67.4%
Total	94	360	454
	100.0%	100.0%	100.0%
Referral Status of Clients with Positive Substance Abuse Screen	CARE Act	Other Payor Sources	Total
Referred for Substance Abuse Services	13	41	54
	46.4%	34.2%	36.5%
Not Referred for Substance Abuse Services	1	29	30
	3.6%	24.2%	20.3%
Currently Receiving Substance Abuse Services	14	50	64
	50.0%	41.6%	43.2%
Total	28	120	148
	100.0%	100.0%	100.0%

Clustering of services supporting Linkages

To increase the linkage of people living with HIV to relevant support services, in 2011 DC revamped the CARE Act request for applications to focus on service clusters. Clustering of services like primary medical care, medical case management, mental health and substance abuse as well as food bank with medical nutrition therapy increase the likelihood of linkage to appropriate services and increases the efficiency and effectiveness of service delivery.

Standards of Care mandating Linkages

The Washington DC Eligible Metropolitan Area HIV Health Services Planning Council and HAHSTA are developing and refining standards of care to govern the provision of services. Standards are in place for ambulatory outpatient medical care, medical case management and substance abuse services. Standards for additional service categories are in development. The mandate within standards is the provision of services in ways that are consistent with guidelines and best practices, and links clients to the full range of services needed for maximum health benefit.

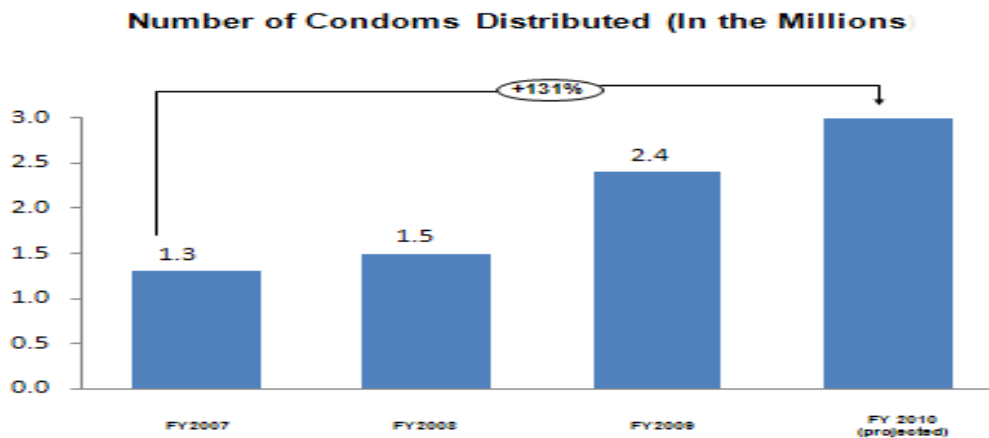
Linkage to Hepatitis C Clinical Services

DC's Hepatitis surveillance system uses a confidential, name-based viral hepatitis registry. It is currently a passive surveillance system, but some case investigation occurs to supplement information such as clinical features, risk factors and serologic test results. For the first time in 2010, HAHSTA released Hepatitis surveillance data. In 2011, an update was released. From 2006 to 2010, there were 13,236 cases of chronic hepatitis C infections. HIV and HCV co-infection is believed to be significant. However, complete surveillance data are lacking in DC. Of those reported with HCV, 9% were also co-infected with HIV. With the increased lifespan of HIV positive individuals due to HAART, patients are often dying of complications from liver disease primarily related to HCV in the US. As a result, the prevalence of liver disease resulting from HCV is likely to increase over time, adding a significant burden on the medical system.

Sources of data
HAHSTA Comprehensive HIV Prevention Application
Program Annual and Interim Progress reports.
Provider reports
Surveillance data
IDIS

Condom distribution for the general population

In 2007, DOH HAHSTA launched its public sector condom distribution program. The strategy to implement an on-demand condom program was based on the high prevalence of HIV and STDs in the District. It is one HAHSTA's largest intervention programs to prevent HIV/STD transmission. The overall goals of the program are to increase condom utilization, normalize/de-stigmatize condom use and impact behavior to sustain routine condom use. The program has multiple components: general male condom distribution, lubricant distribution, individual orders, youth-targeted condoms and FC2 female condoms. The first phase of the overall condom distribution program was to increase accessibility and availability of condoms. HAHSTA recruited community partners in public health, social services, population-based and non-health locations such as bars, restaurants, laundromats, barber shops, hair salons, clothing stores and other businesses. HAHSTA developed outreach materials with a brand and logo "Use A Wrap" providing posters, information cards, window decals, stickers, plastic bowls, bags and other materials to support distribution. HAHSTA posted locations for free condoms on its web site and introduced a text messaging service to find locations by zip code. The number of sites has grown from 100 to 500 and distribution of condoms from 500,000 to 3.5 million from 2007 to 2010. The second phase of the program has been to promote condom use. HAHSTA began a new social marketing campaign "Join the Rubber Revolution" with a dedicated web site www.rubberrevolutiondc.com, advertising in traditional and new media and outreach materials.



In 2009, HAHSTA introduced individual orders of condoms and lubricants. Through the HAHSTA web site, DC residents can order 10 free condoms accompanied by 10 lubricant packages, which HAHSTA sends to their DC address.

HAHSTA initiated the DC Female Condom Project as a public-private partnership in 2009 to educate women (and men), introduce the female condom as a routine feature in sexual activity, and increase distribution and use of the new FC2 female condom. Primarily the MAC AIDS Fund supports the project. It also includes the first retail sale of the FC2 female condom in the nation by CVS stores. HAHSTA developed a new social marketing component “DC’s Doin’ It” with a dedicated web site www.DCDoinIt.com, advertising and outreach materials (brochure and poster). The basis for the project was the DC NHBS Heterosexual study on high prevalence, low partner status knowledge and low condom use.

While adolescents report the highest utilization of condoms at last sex at 70% (YRBS 2007), age-by-age breakdowns show declines in condom use through the ages of 13 to 19. In qualitative studies, youth report barriers to obtaining condoms: school nurse attitudes, high cost, locked displays in stores and brand preference (DC City Council Youth Sexual Health Project). HAHSTA has taken several steps to address these barriers: expansion of condom availability in schools with other adults and peers, youth preferred condom brand (Trojan) and new messaging “Gonna Get It On, Gotta Put It On” and information materials. HAHSTA developed the Wrap MC youth condom educator and distributor program consisting of a web-based training and certification.

HAHSTA will be using several data sources to measure effectiveness in increasing condom utilization. The NHBS cycles have provided new baselines by mode of transmission: heterosexual (30%), Gay/Bisexual men (60%) and injection drug user (30%). For adolescents, YRBS reports 70% condom use. HAHSTA added a condom use question to BRFSS that will provide a general population and demographic breakdown on condom use. HAHSTA also introduced female condom questions into the current NHBS Heterosexual cycle for population-based analysis of female condom education and use.

Budget: \$295,000 (male and FC2 female condoms), \$250,000 (social marketing)

Agencies funded: HAHSTA does not provide dedicated funding for condom distribution. There are 300 plus community partners registered in the program.

Locations: HAHSTA counts approximately 500 sites across the city, inclusive of DC Government, public health and social service programs, businesses and events.

Condoms distributed: 3.5 million male condoms, 1.2 million lubricant packages, 85,000 female condoms

Funding: \$545,000 local, \$500,000 MAC AIDS Fund (FC2 Project)

FC2 female condom education: 13,000 women, 11,000 men

Wrap MC: 130 educators trained, 34 schools and 20 CBOs participating

Condoms are a low cost highly effective tool to prevent the effective transmission of HIV through sexual contact. While HAHSTA believes in the effectiveness of its current large scale condom distribution program, its true impact on HIV prevention can only be accomplished once we can develop strategies that can lead to a measurable increase of condom use. Demonstrating condom use patterns by the population has remained an elusive indicator however HAHSTA believes that by improving our systems of tracking condom distribution patterns as well as relying on behavioral study intervals that integrate questions related to condom use so that we can appropriately attribute HIV prevention progress to our large scale condom distribution program.

Sources of data that inform this program include:

- (1) National HIV Behavioral Surveillance Survey (NHBS);
- (2) Behavioral Risk Factor Surveillance System (BRFSS);
- (3) Program Evaluation Monitoring System (PEMS), its risk factor information include condom use question;
- (4) Youth Risk Behavior Surveillance System (YRBSS), its sex behavior information will provide background information for the needs of condom.

(5) Program data

HIV and sexual health communication or social marketing campaigns

HAHSTA has developed and continues implementation of a comprehensive social marketing program to reduce the burden of HIV/AIDS and STDs through screening, prevention, risk reduction and condom use by target groups and the general population, as well as linkages to appropriate care and treatment services. The overall goals of HAHSTA's Social Marketing Program are to motivate DC residents through culturally appropriate messages to get screened regularly, to reduce risky behavior that can lead to infection, and to access available care, treatment, housing and drug assistance services. HAHSTA has committed to a five-year comprehensive social marketing/public information program called "DC Takes on HIV" which is data driven and market tested. HAHSTA continues to use epidemiological findings from its surveillance data, behavioral studies and program statistics findings to develop messages and communication strategies. The data drove four cornerstones of the DC Takes on HIV public information program: routine HIV testing, condom use, relationships, and treatment promotion (this supports the underlying prevention approach that persons diagnosed as positive prevent further transmission as well as prevention for positives). HAHSTA also supports other complementary social marketing programs for youth and female condoms. The youth social marketing program is called "REALtalk" and funded through a community partner Metro TeenAIDS. REALtalk focuses on HIV and STD testing and condom use. The program combines text messaging, a web site, peer educators, outreach activities and public transportation advertising. HAHSTA is part of a collaboration facilitated by the Global Business Coalition on HIV/AIDS, Malaria and TB's domestic initiative to develop a new comprehensive youth social marketing program. HAHSTA is also part of a public-private partnership the DC Female Condom Project supported by MAC AIDS Fund with the Washington AIDS Partnership, the Female Health Company, CVS/Pharmacy and community-based organizations to education, distribute and promote use of the new generation FC2 female condom. The Project launched a public information campaign called "DC's Doin' It: The Female Condom". The campaign features a web site, public transportation advertising and educational outreach materials. The San Francisco Department of Public Health requested to use the material for its promotion of the female condom. HAHSTA considers social marketing as a core component of its public health program as an essential complement to its support of direct prevention program activity. With the size and breadth of the DC epidemic, social marketing at its large scale is crucial to impacting behavior to reduce HIV transmission. To reach non-English speaking populations, HAHSTA has translated materials into Spanish, Amharic, Chinese, Korean, Vietnamese and French.

Increased efforts to identify new-HIV infected individuals

Routine HIV testing in clinical settings – HAHSTA continues to implement its routine testing social marketing program called "Ask for the Test" to encourage consumers to ask for HIV testing when at their doctor and "We Offer the Test" to educate medical providers on the practical implementation of routine HIV testing. It includes public transportation, billboards, radio, television, Internet and newspaper advertising. Text messaging will allow consumers to locate the nearest free HIV testing sites. The provider component features a handbook on implementing routine testing, a pocket card, test result cards for patients, opt-out card (this card informs patients that they chose not to take a vital health test), poster and an appointment card for an HIV specialist.

Partner Services – With the integration of HIV and STD partner services, HAHSTA has been providing the tool kit for community providers on their role in partner services. The tool kit consists of a handbook with step-by-step scripts on soliciting partner information; provider reference cards; CD-ROM with forms, electronic

versions of materials and literature reviews; consumer brochure; and poster. In addition, e-cards will be hosted on the HAHSTA web site for individuals to notify partners;

Perinatal Prevention – HAHSTA has distributed targeted materials for OB/GYNs, midwives and nurse practitioners on routine perinatal HIV testing. The materials include a pocket card, test results cards, poster, appointment card and, in conjunction with the Mid-Atlantic AETC, Washington Hospital Center and the Children’s National Medical Center, a handbook on implementation of routine perinatal testing.

Reduce Impact of Risk Behaviors among Target Populations

Relationships –HAHSTA developed a new social marketing component to promote thinking about relationships called “Know Where You Stand”. The component is based on the DC NHBS heterosexual study findings on high concurrency rates, mixed knowledge on HIV status and low condom utilization prompting a new approach to raise three questions in the context of relationships: “Do we know our HIV status?” “What is the nature of our relationship and is it only two of us?” and “Do we use condoms?” HAHSTA developed newspaper and bus stop shelter ads, a series of radio ads featuring a couple “Darius” and “Yvette” raising the three questions in a dinner conversation, and a packaged condom and mints – HAHSTA called “condomints” – with the Know Where You Stand messages. HAHSTA will be renewing this campaign.

Promote Positive Behaviors

Youth – HAHSTA will expand the social marketing program created in 2008 with CDC and District-appropriated funding called “REALtalk,” which provides information on HIV testing using text messages and other media, including a web site (www.realtalkdc.org). The campaign encourages young people to get screened for HIV and STDs and change behaviors that increase their risk of infection. HAHSTA developed a complementary message “Gonna Get It On, Gotta Put It On” for its condom campaign for young people. It also introduced a dog tag promotional item on HIV testing with the text “Tested? that has proven very successful among young people. To date, HAHSTA has distributed more than 30,000 dog tags.

Condoms – As described in the previous intervention, HAHSTA has implemented two condom social marketing campaigns: “Use a Wrap” and “Join the Rubber Revolution”. HAHSTA has utilized social media for condom information with a Facebook page, Twitter account and interfacing with all social sites through the Rubber Revolution web site.

Determining the scope and reach of public information programs

HAHSTA will evaluate the public information programs through multiple means, including compiling audience exposure numbers for advertising and outreach materials and measuring increases in condom distribution numbers. On the behavioral impacts, HAHSTA will be utilizing other data sources, including BRFSS (new questions were added on condoms and social marketing), NHBS studies, and other population-based surveys. HAHSTA will also conduct focus groups to analyze effectiveness of program elements and to develop new approaches.

HAHSTA has implemented a comprehensive program monitoring and evaluation (M&E) plan that integrates all activity areas and programs into the larger mission of the Agency. The plan is based on clear results-oriented goal setting that synthesizes the work of all HAHSTA bureaus so that the activities of each clearly contribute to the overall HAHSTA goals. Overall, the package of HAHSTA-level Performance Plan, bureau-level results frames, and program-level indicator sets provides a complete monitoring and evaluation framework for the

work of HAHSTA and each bureau within it.

Budget: \$750,000 (\$250,000 development and \$500,000 advertising/outreach materials) and \$150,000 youth social marketing program

Agencies funded: HAHSTA directly implements the social marketing program except for REALtalk which one (1) agency is funded

Media platforms: HAHSTA has placed advertising with newspapers (6), billboards (4), television (15+ stations/networks), radio (4 stations), web sites (12+, including social networking sites Facebook, MySpace, among others including sexual meeting sites), bus stop shelters (15), public transit (400+ buses, 200+ subway cars, 25+ station posters).

Population reached: advertising 90 million+ impressions (standard industry measure for the number of persons who have seen, heard or read advertising), 50,000+ people through outreach materials. HAHSTA does not have demographic information however, BRFSS and other population-based surveys include questions on contact with the social marketing program that potentially could be analyzed by population group.

Materials distributed: HAHSTA has produced and distributed 200,000+ outreach materials, including brochures, brief informational materials (palm cards, business cards), posters, stickers, t-shirts, buttons, and promotional items (condom packages, dog tags, bags).

Other funding: \$630,000 local and other federal funding

Social Marketing Impact

Social marketing programs have shown evidence of impacts on behavior. There are the established national behavior campaigns on reducing human initiated forest fires, seat belt use, and drunk driving. Sexual health programs include San Francisco's "Healthy Penis" campaign that increased syphilis testing. Some of these campaigns were complemented by structural changes in statue or by community-based education components. Further, social marketing campaigns promote community conversations, service demand and service provision and contribute to normalizing or reducing stigma. HAHSTA launched a campaign to promote its ADAP called "It's Free to Treat Your HIV". The program ran 12 months and increased ADAP enrollment by 50%. HAHSTA developed a social marketing component to its female condom education and distribution program. The social marketing included public transit advertising, educational brochures and posters. HAHSTA added female condom questions as local questions to its NHBS Heterosexual cycle. Though questions were not included in the previous Het cycle, based on qualitative information from focus groups conducted for the female condom program, there was little knowledge or utilization of the female condom. Therefore HAHSTA expects that utilization was near 0%. In the subsequent cycle, which coincided with the first year of the female condom program, 15% of women in the study group reported use of the female condom. HAHSTA recently launched its "Join the Rubber Revolution" campaign to promote condom use. Though the campaign is only in its early stages, one impact has been the increase in individual orders through the Internet. Since the start of the campaign, HAHSTA has seen from a three-fold to five-fold increase in individual condom orders. As a result, HAHSTA intends to continue maximizing its use of resources to continue to raise community awareness among

district residents in order to promote safer behavioral practices, reduction of risk behaviors and promote service/care seeking behaviors.

Integrated hepatitis, TB, and STD testing, partner services, vaccination, and treatment for HIV infected persons and HIV-negative persons at highest risk of acquiring HIV

DC has adopted the strategic priorities as laid out in the 2009 Program Collaboration Service Integration (PCSI) White Paper (1). These are integrated surveillance, integrated programming and integrated training.

HAHSTA's implementation of PCSI recognizes that there are multiple epidemics in the same populations, multiple diagnoses in the same patient and interactions between diseases and epidemics. Data has shown that local surveillance data reveals syndemics of syphilis and HIV in MSM, the high rates of Chlamydia and gonorrhea in 15 to 24 year olds, the high number of cases of hepatitis C in injection drug users, low rates of safe behaviors in MSM and IDU. These reveals high rates of unsafe sexual behavior or needle sharing and thus mitigation of the impact of this behavior would interrupt the likelihood of the transmission of HIV.

Structural Changes

In October 2007, the DC Department of Health created the integrated entity, the HIV/AIDS, Hepatitis, STD and TB Administration, (HAHSTA) to address the evolution of these diseases in DC. Since then, HAHSTA has moved from a non-integrated service model to scaling up the integration of core and expanded HIV, STD, hepatitis and TB programs and services. Integrating the administration has enabled HAHSTA to apply some of the service integration approaches detailed below.

Integrated Surveillance and Data Systems

The Strategic Information Bureau (SIB) leads HAHSTA's epidemiology and surveillance efforts. SIB provides one standard for data collection, storage, analysis and use and provides technical assistance to all bureaus. Led by SIB, all bureaus collaborated to produce the first ever integrated, "DC HIV/AIDS, Hepatitis, STD and TB Epidemiology Annual Report 2009" in 2010.

HAHSTA is building an integrated data system, MAVEN, that will be utilized all bureaus and allow appropriate, secure and confidential access to internal and selected external providers for the purpose of entering and reporting on client level data, including the number and types of services received.

HAHSTA underwent a reorganization to more efficiently and effectively implement its core work and achieve its performance goals. The realignment integrated STD and HIV epidemiology staff, redeployed underutilized staff into needed areas, and combined administrative support.

In 2009, the STD Laboratory Visitation Project broadened its scope to include a survey of HIV, Hepatitis, and TB practices in 20 Labs that report to HAHSTA

Although HAHSTA is not funded for hepatitis surveillance, HAHSTA has developed a laboratory based hepatitis surveillance system to monitor the burden of disease.

Moving forward, HAHSTA’s will build disease intervention specialist (DIS) surge capacity. This will entail integration of HIV, STD and TB surveillance activities and systems; completion of necessary data protocols and cross training within the project period. This will further the use of integrated data, as made reference to in intervention 21 where STD and HIV surveillance systems will be used to prioritize case investigation and service delivery to populations at risk.

Opportunities for Service Integration

Based on the local epidemiology, the DC has complex epidemics with multiple diseases affecting the general population and target populations such as MSM, IDU and youth. Case and behavioral surveillance data reveal gaps and indicate the need to scale up and expand services. DC also uses qualitative and quantitative assessments from the CDC mandated HIV Community Planning Group (CPG) and HRSA funded Planning Council to assess risk populations and direct service delivery. Based on local data the table describes the need for integrated services.

	Data Source	Finding	Action
General Populations	<ul style="list-style-type: none"> Epi Profile BRFSS 	<ul style="list-style-type: none"> High burden of disease (HIV, STD, Hep C) 	<ul style="list-style-type: none"> Opt out routine screening in emergency departments Routine GC/CT screening in women and girls of childbearing age Health Behavior and Risk Reduction Municipal Condom Distribution: online, venues, schools Increased HIV/STD partner services
MSM	<ul style="list-style-type: none"> Epi Profile NHBS Community Service Assessment (CSA) Service Utilization Data 	<ul style="list-style-type: none"> Co morbidities: HIV/Syphilis High Rates HIV High rates of high risk behaviors 	<ul style="list-style-type: none"> Engage w/providers who serve MSM Encourage routine HIV and syphilis screening Bi-Annual HIV and STD testing Messages developed to reduce stigma Increase HIV/STD partner services Hepatitis A/B Screening/Vaccination
Heterosexuals	<ul style="list-style-type: none"> Epi Profile NHBS Community Service Assessment (CSA) Service Utilization Data 	<ul style="list-style-type: none"> High rates HIV, STDs High rates of high risk behaviors Low risk perception 	<ul style="list-style-type: none"> (General Population Strategies) Social Marketing/harm Reduction Integrated Partner Services (PCRS)

IDUs	<ul style="list-style-type: none"> • Epi Profile • NHBS • Community Service Assessment (CSA) • Needle Exchange • Service Utilization Data 	<ul style="list-style-type: none"> • High rates HIV and Hepatitis C • Need for psychosocial services 	<ul style="list-style-type: none"> • Hepatitis C screening • Needle Exchange/Harm Reduction • Referral to substance abuse/mental services
Youth	<ul style="list-style-type: none"> • EPI Profile • STD Testing Data • Youth & HIV Prevention Plan • BRFSS 	<ul style="list-style-type: none"> • High rates of STDs • High rates of high risk behaviors 	<ul style="list-style-type: none"> • Youth GC/CT screening • Condom Distribution • Harm Reduction • Social Marketing • New Media (text messaging)
Homeless	<ul style="list-style-type: none"> • EPI Profile • Service Utilization Data 	<ul style="list-style-type: none"> • High prevalence/risk of TB 	<ul style="list-style-type: none"> • Routine Screening of HIV/TB in appropriate settings

Service Integration

Core Integrated Services (Level 2) ¹

HIV Screening and Hepatitis Immunizations in the STD Clinic

HIV Screening: In July 2009, the SE STD Clinic, the only publicly funded STD clinic in Washington, DC, began providing opt-out HIV testing. Full implementation began in October 2009. All clients who were not previously known to be HIV infected and had not been tested in the previous 30 days were screened using the OraQuick ADVANCE Rapid HIV-1/2 Antibody Test. Disease Intervention Specialists (DIS) ceased pre-test counseling and written consent for HIV testing was incorporated into the general consent form. From July 2008 through June 2009, 9,537 unique clients visited the SE STD Clinic, of which 5,972 (62.6%) were screened for HIV, 2,558 (26.8%) were deemed ineligible, and 1,007 (10.6%) refused. Of those tested, 48 (0.8%) were positive – 35 (72.9%) were new infections, 11 (22.9%) were previous positives, and 2 (4.2%) were false positives. From July 2009 through June 2010, 12,154 unique clients visited the SE STD Clinic, of which 9,702 (79.8%) were screened for HIV, 2,039 (16.8%) were deemed ineligible, and 413 (3.4%) refused. Of those ineligible, 1,832 (89.8%) had been tested in the previous 30 days, 197 (9.7%) were previous positives, and 10 (0.5%) were listed as “Other.” Of those tested, 89 (0.9%) were positive – 59 (66.3%) were new infections, 25 (28.1%) were previous positives, 2 (2.2%) were false positives, and 3 (3.4%) were “Out of Jurisdiction.” “Routinization” of HIV screening among this high-risk population increased the percentage of clients tested, decreased the percentage of clients that were ineligible or refused screening, and increased the number of new

infections identified (0.37% versus 0.49%, respectively). From July 2009 through June 2010, 3730 more HIV tests were conducted (compared to July 2008 through June 2009) identifying 14 additional new HIV infections.

HIV Testing in the TB Clinic

The TB clinic performs routine HIV screening on patients screened for TB, close contacts or those who have potentially been exposed to TB, and those clients with active and latent disease. In 2010, 588 individuals were tested and 4 positives were identified.

HIV Testing in Emergency Departments

In 2006, DC began implementation of the first jurisdictional scale up routine HIV testing in medical settings. Expanding on the CDC guidelines for high HIV morbidity states to expand voluntary, opt out HIV testing in health-care settings for all persons aged 13-64, HAHSTA expanded the scope of testing services through expansion of testing partners, specifically moving testing to clinical settings, where volume and positivity rates have been higher. In 2009, HAHSTA funded 25 medical providers to implement opt-out HIV testing, including medical centers, hospital emergency departments, HAHSTA's TB and STD clinics, and community health centers (see intervention 1).

STD Screening in Family Planning Clinics

As part of the Region III Infertility Prevention Program, HAHSTA supports STD screening within two Planned Parenthood sites. The overall goal of the Region III Infertility Prevention Project is to assess and reduce the prevalence of Chlamydia and associated complications in Family Planning and STD clinic populations and other community-based provider populations, through a program consisting of outreach, education, screening, treatment and follow-up. These sites provide Chlamydia testing, treatment, counseling, and education/ outreach services to females twenty-five years old and younger and their male partners. These sites are reimbursed \$16 per patient to conduct the above-mentioned services and may be reimbursed up to \$33,000 per year. The sites report treatment information for all patients testing positive to HAHSTA so that field investigation activities can be initiated on those positive patients who did not receive treatment.

In FY 2010, there were 827 clients who were twenty-five years old or younger screened at the Planned Parenthood sites. Of these 827 clients, 84 were positive, yielding a 10% positivity rate.

Hepatitis Vaccination at Medical and Non-Medical Sites

HAHSTA's Prevention and Intervention Services Bureau staff houses the Adult Viral Hepatitis Coordinator (AVHPC) who leads several Hepatitis activities. Through the efforts of the AVHPC, HAHSTA created a basic viral hepatitis course for providers who serve persons most at risk for hepatitis. This built capacity and increased knowledge regarding the need for routine and integrated prevention services including vaccinations for hepatitis A and B. The scale up of hepatitis vaccination was made possible through the integration of Hepatitis with HIV and STD services. Along with the integration, hepatitis was absorbed into the Prevention Bureau allowing for program integration with HIV/AIDS community partners. In 2007 and 2008, HAHSTA's Hepatitis program collaborated with Department of Health's Immunization Program and received CDC's 317 Adult Vaccine Initiative funding. The baseline vaccine delivery at all DC sites before 2009 was less than 2000 vaccines administered. The objective of the 317 Vaccine Initiative was to increase vaccine delivery by 10% by partnering with new sites that worked with high-risk clients. These high risk clients included: persons being treated for sexually transmitted diseases, men who have sex with men, persons who are incarcerated or newly

released from prison, HIV positive individuals or persons at risk for HIV/AIDS, intravenous drug users and those already in substance abuse treatment, persons who are homeless or living in shelters, households and sexual contacts of persons diagnosed with acute hepatitis A or B and immigrant & refugee populations. DC has administered approximately 4,016 vaccines to date and exceeded its 10% target by 80%.

Hepatitis Service Integration within Substance Abuse Service Sites

HAHSTA conducted a formative needs assessment on twenty substance abuse treatment agencies to examine current hepatitis activities and assess existing capacity and willingness to integrate hepatitis prevention into their operations. These agencies provided needle exchange, methadone maintenance and residential treatment. 55% had educational materials available at their site; 25% provided on-site HCV screening; 35% provided referrals for HCV screening and 25% provided hepatitis A and B vaccinations on site. 90% of the agencies requested staff training, educational materials and hepatitis resource guide as well cultural sensitivity training at receiving agencies. In response, HAHSTA designed a Basic Hepatitis Training module titled “Hep T: A Basic Hepatitis Knowledge Training” where staff at agencies were trained in not just basic hepatitis prevention but also around skill-building for appropriate hepatitis risk reduction counseling and effective vaccination and screening linkages. All twenty agencies have received the training sessions. These gaps highlight the need for further integration that HAHSTA is working with the providers to fill.

Integrated Needle Exchange Services

DC also supports an integrated service model within its Needle Exchange programs. HAHSTA’s needle exchange (NEX) program model delivers an innovative approach that ensures access to a full range of complimentary services such as HIV counseling and testing, HIV medical care linkages, hepatitis education and screening, HIV care and treatment, primary medical care services, residential and outpatient substance abuse treatment programs, methadone programs, mental health services, wound care services, overdose prevention, STD screening and other support social services. HAHSTA supported NEX programs offer a combination of fixed locations and mobile outreach efforts. In 2009, there were four programs delivering HAHSTA’s model of needle exchange. Two were community-based organization and two are community-based organizations. In addition to the full complement of services they provide, one of them has also added naloxone distribution as part of their full complement of services in an attempt to provide a more wrap around service to safeguard the wellbeing of their patients.

Recently, DC’s needle exchange was dramatically impacted by the closure of the longest-standing needle exchange program in DC, Prevention Works. After undergoing several years of leadership transition and a consistent loss of public and private funding, Prevention Works was forced to close its doors on February 25th, 2011. DCDOH reacted swiftly to reduce the potential gap that would be left by Prevention Works through convening a working meeting of all needle exchange providers in the city in order to devise a collective plan to meet this gap. Each program demonstrated to have the capacity and submitted plans for expansion in order to meet the additional burden. HAHSTA re-distributed the funds that had been originally allocated to support Prevention Works in order to support this expansion. Lastly, HAHSTA will continue to look for additional opportunities to expand needle exchange services through like organizations able to effectively reach and serve the injection drug using population.

These programs combined served over 1900 active injection drug users in 2009. As a part of the model, these programs yielded over 2200 referrals to HIV screening, 642 referrals to substance abuse services including detoxification and treatment and 175 referrals to medical care that included STD, TB and hepatitis screening.

HAHSTA's NEX model is currently fully supported with DC local dollars totaling approximately \$670,000 per year.

Expanded Integrated Services (Level 3)¹

HIV/AIDS, Hepatitis, STD and TB screening diagnosis, treatment and social services

HAHSTA's standard of care for Ryan White funded outpatient ambulatory medical care medical providers integrates annual STD screening (see intervention 10) and annual TB screening, Hepatitis screening and vaccination and linkage to needed social and medical services for HIV positive individuals. The request for applications for the 2011 Ryan White grant year mandated that providers who provide OAMC must also offer or clearly link to substance abuse, mental health services and medical case management services.

Hepatitis C Clinical Services within comprehensive HIV/AIDS Clinics

DC's Hepatitis surveillance system uses a confidential, name based viral hepatitis registry. It is currently a passive surveillance system but some case investigation occurs to supplement information such as clinical features, risk factors and serologic test results. For the first time in 2010, HAHSTA released Hepatitis surveillance data. From 2004 to 2008, there were 11,624 cases of chronic hepatitis C infections. HIV and HCV co-infection is believed to be significant but complete surveillance data are lacking in DC. Of those reported with HCV, 8.5% were also co-infected with HIV. Using HIV mode of transmission surveillance data, the largest proportion of HCV and HIV co-infected cases were intravenous drug users. With the increased lifespan of HIV positive individuals due to HAART, patients are often dying of complications from liver disease primarily related to HCV in the US. As a result, the prevalence of liver disease resulting from HCV is likely to increase over time, adding a significant burden on the medical system.

Therefore, as part of the DC-NIH Partnership for HIV/AIDS Progress (DC PFAP), HAHSTA has partnered with NIH and local clinical providers in the implementation of three satellite hepatitis sub-specialty clinics. These DC PFAP Subspecialty Clinics are evaluating hepatitis B and C patients, with or without HIV, for continuous clinical care at three DC community based medical clinics with possible expansion into hospital-based centers. It is an integrated model of evaluating, educating, engaging and treating these patients. HAHSTA in partnership with the NIH will continue this effort over the project period. Expansion has been gradual, with over 200 specialty visits since the opening of the first clinic in March 2010. These referrals are primarily from the Ryan White funded sites within which the clinics operate. To expand coverage and utilization, the partnership will use surveillance data to target providers who diagnose large number of hepatitis C patients to strategically inform them of the availability of hepatitis sub-specialty services for HIV positive individuals and develop a linkage protocol for patients in need of services. Full demographic data is being collected on these clients.

Cost

Funding for these activities cross all funding sources from HHS (HRSA, NIH and CDC) and DC Local Funds.

Targeted use of HIV and STD surveillance data to prioritize risk reduction counseling and partner services for persons with previously diagnosed HIV infection with a new STD diagnosis and persons with a previous STD diagnosis who receive a new STD diagnosis

DC has one of the highest rates of HIV and STD infection in the US. HAHSTA assessed the relationship between these co-infections in the DC to determine the factors that influence the risk of becoming infected with HIV after an STD infection so that appropriate interventions can be targeted to affected sub-populations. Historically, DC has used STD/HIV surveillance data to guide programmatic priorities – most of gonorrhea and Chlamydia cases were among persons 15-19 years of age. This led to the creation of the School-based STD Screening Program. Most syphilis cases were among men who have sex with men and men who used the Internet in order to engage in high-risk behaviors. In response, the Internet Partner Notification (IPN) Program was begun. HAHSTA has performed surveillance data matches to look at risk factors for and timeliness of co-infections, and this has helped guide efforts – such as trying to provide routine holistic risk reduction for high-risk MSM and youth that are serially infected with STDs to reduce the likelihood of HIV infection. .

Use of Youth Surveillance data

Surveillance data from 2004 to 2008 reports 23,465 Chlamydia (CT) cases and 11,608 gonorrhea (GC) cases. Young people aged 15-19 comprised 37% of Chlamydia cases and 28% of gonorrhea cases. Specifically, for those younger than 24 years old, reported CT and GC cases were higher among blacks than other racial groups, and higher among young women than young men. HAHSTA collaborates with the DC Public Schools and Office of the Superintendent of Education and with charter schools on sexual health primarily through the School-Based STD Screening program (SBSP) and Health Education Program and through the expanded condom availability policy to promote increased condom education and utilization. HAHSTA complements the in-school curriculum by funding and coordinating with community-based providers to reach young people with sexual health information, HIV/STD testing and prevention and treatment for STD's and HIV. The Adolescent Screening Programs include both the SBSP and screening during the Summer Youth Employment Program (SYEP). During the 2009/2010 academic year, the SBSP expanded into all DC public high schools as well as a few charter schools. The plan is not only to increase the number of 15-19 year olds screened for gonorrhea and Chlamydia through the pre-established successful Adolescent Screening Programs, but partner with local youth-based community based organizations (CBOs) to focus efforts on high-risk adolescents - those with multiple STD diagnoses - by providing on-going risk reduction counseling services (rather than just at point-of-care) and ensuring linkage into additional resources (such as a large local primary care network's adolescent services). The local youth-based CBOs will work with these vulnerable youth to make sure that they get their partners treated, that they know their HIV status, and that they are re-screened for STDs in three months. They will initially focus their efforts on those high-risk youth that have either been re-infected (identified through our surveillance data), or are co-infected. School-based testing for Chlamydia and gonorrhea has expanded since 2008, when testing was performed in 2 public high schools, 2,000 students were tested and had a CT positivity of 14%, to all 20 public high school in 2010, with a projection of 12,000 tests and a positivity between 9 and 12%.

Use of MSM Surveillance data

Between 2004 and 2008, 95% of syphilis cases were in men the majority in MSM. Of the cases co-infected with HIV and syphilis, 15.5% of cases had syphilis diagnosed more than six months before HIV diagnosis. Over one third (34.8%) of cases were diagnosed with both within six months of each other, and nearly half

(49.7%) of cases were diagnosed with syphilis more than six months after the HIV diagnosis. Most cases that were infected with HIV and syphilis had MSM sexual contact as their mode of transmission, accounting for 71.9% of cases from 2004-2008. This has facilitated the interviewing of syphilis cases and improved the location, testing, and treatment of their partners.

A dataset linking HIV and STD surveillance data from 1998-2008 was created identifying cases that had been infected with both an STD and HIV. From 1998-2008, 48,771 people had an STD, 11,333 were HIV-infected and 1,449 (3.0%) had both an STD and HIV. The majority of co-infected persons (N=771) were diagnosed with an STD prior to HIV-infection. Approximately 30% of syphilis cases were co-infected with HIV of which 63.9% were infected with HIV through male-to-male sex. The risk of HIV-infection was two to three times higher for persons who had two or more STD episodes compared to those with one episode. The risk of HIV-infection among individuals with syphilis was nearly four times higher than the risk among persons with gonorrhea. With the high rate of recurrent STD infections resulting in HIV-infection in DC, HAHSTA is developing STD control coupled with HIV prevention efforts. The high proportion of syphilis-HIV co-infections in MSM has led to programs to test and educate this particular population.

Given this data, HAHSTA also developed a public-private initiative with one of its community providers, Gilead Sciences and the Crew Club (a recreational gym and spa catering to gay and bisexual men) to offer HIV and syphilis testing at the Crew Club. The project has identified men who acknowledged that they would not have taken the tests in an HIV identified community provider or through their medical provider. The positivity rates are indicated below. Budget: \$48,000 (\$40,000 Gilead, \$5,000 Crew Club, \$3,000 HAHSTA local funding) In addition, HAHSTA’s funding of the oversubscribed Gay Men’s Health and Wellness Clinic at the same community provider presents more opportunities for screening and education. In addition, HAHSTA expects sexually active gay and bisexual men to be screened for STDs every six months.

Crew Club STD Screening July – December 2010				
Test	Site	Number*	Positive	Positivity Rate
HIV	---	189	7	3.7%
Syphilis	---	191	18	9.4%
NAAT - GC	Urethral	184	2	1.1%
	Pharyngeal	189	0	---
	Rectal	183	2	1.1%
NAAT - CT	Urethral	184	5	2.7%
	Pharyngeal	189	0	---
	Rectal	183	14	7.7%

HAHSTA has also embedded a disease intervention specialist (DIS) into one of the highest reporters of syphilis in DC, to shorten the time from diagnosis to interview, to increase the number of partners elicited, to minimize the time to examination and treatment of these partners, etc. The plan is to embed additional DIS into the offices of private MDs who see and report a significant amount of Dc’s syphilis morbidity.

Using surveillance data to guide Partner Services

The use of surveillance data to guide Partner Services will include the following:

- **Development and implementation of a revised PS “reactor grid”** that allows targeting of high risk persons through creative use of existing resources within current limitations of staff and funding. DC has expanded the traditional STD partner services reactor grid to include field records on all syphilis cases plus the most at risk populations. For Chlamydia and gonorrhea cases, DC only interviews and provide partner management for the following:
 - a Those < 26 years of age
 - b Those that are pregnant
 - c Those that are diagnosed at the SE STD Clinic or through our youth initiatives
 - d And those that are known to be previously HIV infected
- **Regular surveillance matches** Beginning in FY 2011, DC began matching the eHARS and STD*MIS databases every two weeks. Clients that have been diagnosed with a new gonorrhea, Chlamydia, or syphilis infection, are known to be previously HIV infected, and weren’t already interviewed for other reasons (age, stage of syphilis, location of diagnosis, pregnancy status, etc.), are prioritized for HIV Partner Services. Results from first quarter data show the need to expand PS activities to those most at risk for transmitting HIV.

DATE	New STD DX	HIV Co-infected
10/15/2010	441	54
10/31/2010	439	27
11/15/2010	371	32
11/30/2010	372	30
12/1-31/2010	744	71
TOTAL	2,367	214

- **Use of Surveillance at data at point of service** HIV surveillance data at the SE STD Clinic in order to guide case management. For example, if a forty year old male that comes into the clinic and has a positive gram stain for gonorrhea he will be diagnosed, treated, and counseled based on this infection. The DIS will enter eHARS and check on his HIV status, and if he were known to be previously HIV infected, would bolster risk reduction counseling messages, interview this man, and provide him with partner management.

Community mobilization to create environments that support HIV prevention

With its high prevalence epidemic cutting across population groups, gender, race/ethnicity and geography at severe impact, DC has committed to a significant community mobilization to build capacity among non-HIV providing organizations and engage participation in prevention activities. HAHSTA has strategically invested local funding into several capacity building initiatives: youth-focused, faith-based and small community-based organizations. HAHSTA has prioritized wards of the city with the highest rates of HIV/AIDS (Wards 5, 6, 7 and 8). HAHSTA has also identified select population groups, such as African immigrants, which have small, mostly volunteer, organizations. In total, approximately 200 organizations have participated in capacity building activities to increase their HIV competency and to initiate or expand prevention activities. The following are additional details on the three core community mobilization programs:

Effi Barry Program

Through the Effi Barry Program, HAHSTA aims to strengthen the internal administration and build the capacity of small community and faith organizations based and located within areas of DC's hardest hit by the HIV/AIDS epidemic to implement and/or expand a range of HIV/AIDS prevention and support focused programming. The overarching goal is to equip Effi Barry Program participants/grantees with the necessary resources, skill set, knowledge, and tools to enhance their organizational capacity and infrastructure that will directly impact the District's capacity to effectively respond to the HIV epidemic.

Since 2007, the DC Council and DOH HAHSTA has provided HIV competency, enhanced organizational development and funding to more than 65 District based community and faith organizations. The capacity building assistance and resources afforded to Effi Barry Program grantees has enabled them to implement and/or expand a range of HIV/AIDS programs aimed at:

- Increasing HIV routine testing
- Increasing the consistent use of condoms
- Increasing knowledge of HIV within the community
- Reducing stigma related to HIV, STDs, and risk behaviors

The core program is a two-year series of workshops and direct consultation with small grants to support participation and start program activity. First year program participants must compete for second year participation and financial support. The Program also includes two other components: Linkages, which supports collaboration among organizations that agree to work together to facilitate an integrated service model or to collaborate on full implementation of best practice models; and Effi Accelerated for organizations seeking only more HIV competency and not requiring organizational development. The Program has also helped form and provides consultation support to the African Immigrant Collaborative with goals to increase HIV testing, linkages to care and better tracking of follow up for individuals. Many of the African immigrants in DC are from Ethiopia and Eritrea. The prevalence rates in those countries are actually slightly lower than DC (Ethiopia 2%, Eritrea 1%), yet the perception of many these immigrants is that the United States does not have high HIV rates, especially among heterosexuals. In this instance, these immigrants are actually at higher risk of infection in DC than in their country of origin. In discussions with NASTAD and CDC Ethiopia, there is a significant number of Ethiopians who routinely travel back and forth between DC and Addis Abba. The support to the African Immigrant Collaborative is based on building capacity among those community providers and reducing risk of HIV infection and transmission.

HAHSTA developed and implemented a process to measure the learning of Effi Barry Program participants. HAHSTA prepared pre- and post-tests on subject matter of workshops to assess knowledge increase in training topics on organization development and infrastructure, strategic information, monitoring and evaluation, and HIV program planning. HAHSTA developed an assessment tool (scorecard) which tracks workshop attendance, compares pre- and post-test scores to highlight improvements in subject area knowledge and understanding, identifies topical challenges for organizations, and provides a baseline for improving the program for future grant recipients. Participants increased their pre- and post-test scores by about 19 percent.

Budget: \$650,000 (local)

Agencies funded: 24

Youth Capacity Building Assistance

In its 2007-2010 Youth and HIV Prevention, HAHSTA identified the need to mainstream HIV and sexual health competency among youth serving organizations. HAHSTA identified approximately 200 organizations in DC provide services to young people. HAHSTA allocated local funding for a capacity building initiative for youth organizations and funded one of its community partners Metro Teen AIDS. Metro TeenAIDS initiated its Capacity Building Assistance Program to provide workshops and one-on-one assistance to non-HIV focused youth organizations to mainstream HIV and STD in their program activities. The first year was successful and Metro TeenAIDS has retooled the program slightly with three levels of assistance: intensive one-on-one, moderate at group workshops and low with information sessions, such as brown bags. Metro TeenAIDS also added an effective two-day symposium on capacity building. The program provided training to 113 community organizations, more intensive technical assistance to 33 organizations and conducted 7 trainings and 33 brown bag learning sessions.

Budget: \$150,000 (local)

Agencies funded: 1

Faith-Based/Places of Worship Advisory Board

Members of DC's faith community have been actively engaged since the start of the epidemic. In 2008, HAHSTA launched an initiative to increase participation of faith community congregations and leaders to raise awareness of HIV and develop or expand HIV prevention efforts. HAHSTA formed a Places of Worship Advisory Board (POWAB) of 18 individuals that represent various faiths and institutions (Baptist, Methodist, Catholic, Seven Day Adventist, Holiness). The intention of the faith-based initiative and POWAB is to reach all faith communities based on the epidemiology that all population groups in DC are potentially at risk for infection. In practice, the Initiative has focused primarily on African Americans both young and mature adults. The prevalence rate among African Americans is 4.7%, the highest of all race/ethnicities, in DC. The POWAB has guided HAHSTA in formulating strategies to recruit more congregations into HIV activities, link more active organizations to mentor those newly beginning HIV activities and provide technical assistance support. The approach has to be meet individual congregations where they are most comfortable from pastoral messages from the pulpit to health fairs to HIV/AIDS Ministries to HIV testing and even condom distribution. HAHSTA also allocated local funding for faith-based capacity building to provide technical assistance to faith-based organizations on developing HIV ministries and other HIV prevention activities. HAHSTA supported the formation of the Black Leadership Commission on AIDS, a panel of mostly clergy leaders. The POWAB sponsors a faith-based symposium, "One in the Spirit", first held in November 2009 and repeated in 2010. The POWAB designed the conference and outreached to 367 faith institutions. The first conference had 200 participants, the second 300. The POWAB members volunteer to meet with congregations to provide training and support for HIV prevention activities.

Budget: \$75,000 (local)

Agencies funded: 1

Agencies receiving technical support: 50+

Individuals reached through the program: 1,000+

Community involvement in HIV prevention was for several years the driving force behind major accomplishments in curtailing the impact HIV had on some communities. As public resources were dedicated

to HIV prevention care and treatment, less and less individuals have been involved based on individual passions and on an expectation that only the government is responsible for accomplishing absolute control or eradication of HIV. HAHSTA believes that community involvement remains an important component of HIV prevention at the community level. Advisory groups and volunteers present the public health sector with a particular advantage of having established connections to gatekeepers and knowledge of what messages, activities and programs are most effective to reach their respective communities. HAHSTA has already seen excellent results from its Places of Worship Advisory Board, which has effectively reached numerous churches and faith leaders. With HAHSTA's support, the POWAB has also created materials targeting their respective groups and have held successful annual conferences. The reach of these groups not only raises awareness effectively within the community but they are also a cost effective way to do so as these groups are voluntary in nature.