

PROJECT ABSTRACT- FY 2009

HIV Emergency Relief Grant Program Part A

Dutchess County TGA

Dutchess County is located approximately 90 miles north of New York City, and is primarily a rural county with two urban centers, the cities of Beacon and Poughkeepsie. According to the 2006 American Community Survey census, the county has 292,746 residents and a population growth of 6%, making it one of the fastest growing counties in New York State. Whites comprise 77.4% of the population, Blacks 10.2%, and Hispanics 8.4%. The average county household income is \$65,965. While 7.7% of the county residents live below the poverty level, 22.7% of the Poughkeepsie residents and 11% of the Beacon residents live below the poverty level.

As of December 2007, among those living with AIDS in the TGA, men accounted for 81.24% of the cases compared to women, who accounted for 18.76%. The primary risk factors for disease exposure continue to be injection drug use (46.27%), followed by men who have sex with men (14.8%) and heterosexual contact (13.4%). Over half the AIDS cases (67.6%) are among individuals 45 years or older, and 31.7% among the 20-44 years age group. Race and ethnicity specific infection rates indicate *a disproportionate impact on minority populations*. Blacks are 20 times more likely to have AIDS compared to Whites. Hispanics are almost 12 times more likely to have AIDS as compared to Whites. In the TGA, *Black women have the highest AIDS incidence rate* and are 20 times more likely to have AIDS compared to White women, while Hispanic women are almost 6 times more likely to have AIDS as compared to White women.

The epi-centers of HIV infection are in the urban areas of Poughkeepsie and Beacon. Most of the primary medical care and social service providers are located in these two cities. The TGA has a comprehensive continuum of care, with two Community Health Centers providing HIV primary care at four sites throughout the county: in central, northern, southern and eastern Dutchess. There are three area hospitals, including the VA hospital, one of which is qualified as a medical center. The most common reported barriers to utilization of services include poverty, lack of housing, health insurance, and lack of transportation.

To address these barriers and reduce disparities, the TGA supports a range of interventions aimed at increasing access to and maintenance in the HIV continuum of care. Located in the epicenters of the infection, the *Outpatient/Ambulatory Medical* care providers are accessible to the underserved communities. *Substance Abuse* services interface with points of entry such as detox programs, inpatient treatment and drug court to facilitate access to care throughout the TGA. *Medical Case Management* services (including *Treatment Adherence*) coordinate the help essential to stabilize and maintain optimal health throughout the county. The *transportation* program offers rides within the county and to Designated AIDS Centers in Westchester, Albany and New York City. *Early Intervention Services* track PLWH/A that know their status and have fallen out of care. Working with the State ADAP program, the TGA coordinates financial assistance for PLWH/A to enroll in. *Home Delivered Meals* and *Emergency Financial Assistance* ensure stability of vulnerable consumers.

Dutchess County has received Ryan White funding since 1996.

1. DEMONSTRATED NEED

1. a. HIV/AIDS EPIDEMIOLOGY:

People Living with HIV: HIV Prevalence

As per published guidelines of the HIV/AIDS Bureau, HRSA and the Center for Disease Control and Prevention (CDC), the CDC HIV Prevalence Estimate 2007 was updated to reflect changes in the TGA from 2006 to 2007. Using the CDC methodology, the increase in the number of people living with HIV was derived by using the ratio of people living with AIDS in the TGA.

According to the updated 2007 New York State Department of Health (NYSDOH) estimates, there are 1,141 people living with HIV infection in Dutchess County (See Table 1 in Attachments). The HIV prevalence rate for the TGA is 386.6/100,000 population, which is *more than twice the national HIV rate* of 170/100,000 population.¹

Among people living with HIV, 71% are male and 29% are female. Racially, the burden of HIV infection within the TGA falls on minority populations, with approximately 45% of the cases among Blacks, about 27% Hispanics, 25% Whites and a 3% Multi-Race. There is an increase in the percentage of HIV prevalent cases that are of Multi-Race from 2005 when it was less than 1% (i.e. 0.01%) to 2007 when it is 3.03%.

As of December 31, 2007, there were seven (7) reported cases of children under the age of 13, and twenty five (25) children ages 13 to 19 living with HIV in Dutchess County. Approximately sixty percent (59.2%) of HIV cases are between 30 to 49 years of age, followed by 33.13% aged 50 and older. The aging trend of HIV prevalence is apparent in the increase in the number of HIV cases seen in the age group 50 years and older, which was 26.64% in 2005.

NYS started reporting of HIV in 2000. According to NYS Bureau of HIV/AIDS Epidemiology data, from 2000 to 2007, the number of people living with HIV in Dutchess County is *steadily increasing* from 26 in 2000 to 495 in 2007. Chart 1 below illustrates the increased HIV prevalence in the TGA.

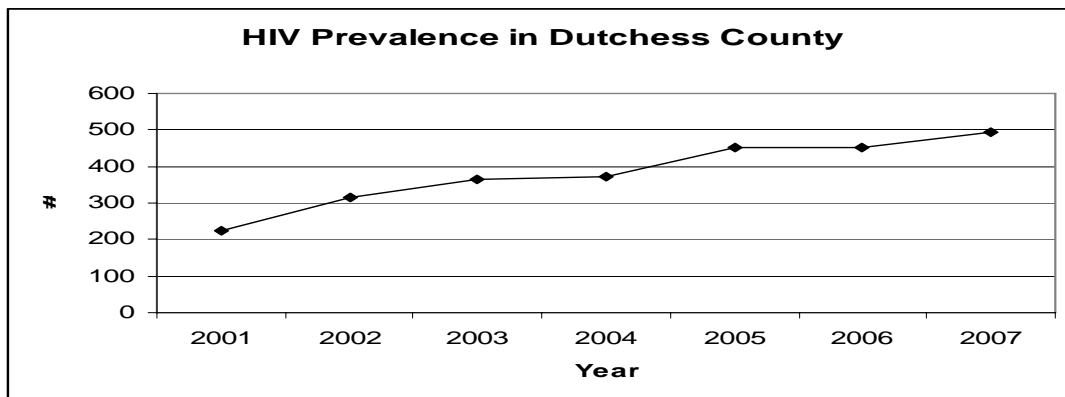


Chart 1 - Source: NYSDOH, Bureau of HIV/AIDS Epidemiology, August 2008

¹ Source: <http://www.cdc.gov/hiv/topics/surveillance/basic.htm#PLWH/A>

Number of People Living with AIDS: AIDS Prevalence

According to data provided as of August 2008, by NYSDOH Bureau of HIV/AIDS Epidemiology, the Dutchess County Transitional Grant Area (TGA) has a total of eight hundred fifty eight (858) prevalent cases of AIDS at the end of December 2007 (See Table 1 in Attachments).

The NYSDOH HIV/AIDS Bureau provided data for AIDS prevalence for the past five years. Over the past five years, the number of individuals living with AIDS (i.e. prevalence of AIDS) has steadily increased from 536 in 2000 to 858 in 2007. When compared with the national prevalence rate of 150 per 100,000 population², the prevalence of AIDS in Dutchess County at 291 per 100,000 population demonstrates the burden of the disease in the TGA.

In Dutchess County, consistent with national trends, AIDS disproportionately affects minorities. Blacks account for 44%, Hispanics 30%, Whites 23%, and Multi-Race 3% of the cases. The prevalence distribution among these racial groups has remained stable since 2006.

As of 2007, 53.26% of AIDS prevalent cases are in the age group of 30-49 years, and 44% are 50 years or older. This reflects an increase from 2006, when 40% were in the age group of 50 years or over. The number of living AIDS cases in the 13 to 19 age group has increased slightly from a single case in 2003, to 6 cases in 2005 and remains at 6 cases in 2007. Among the cases living with AIDS, men accounted for 81.24% of the cases and women accounted for 18.76%.

Chart 2 illustrates that over five years period, from 2002 to 2007, the highest risk factor remained Intravenous Drug Use (IDU), accounting for 46.27% of the cases, followed by Men having Sex with Men (MSM) at 14.8% and Heterosexual contact at 13.4%. In 2007, 4 pediatric patients with maternal transmission and one pediatric patient with no identifiable risk were reported. Combined MSM/IDU shows a steady increasing trend. Over the past three years, about 20% of the cases have no known risk factor identified.

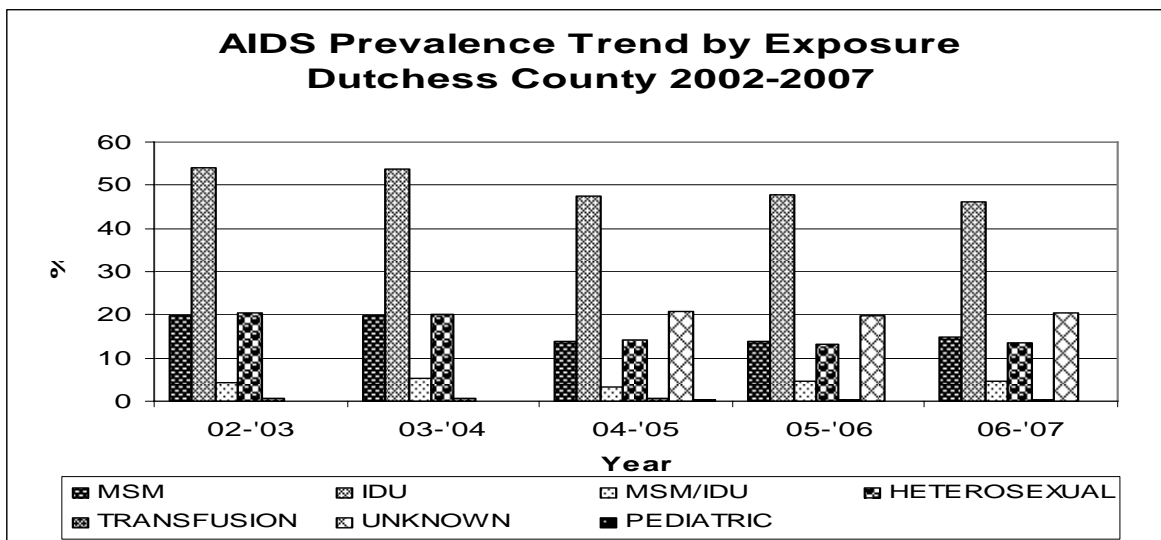


Chart 2 - Source: NYSDOH, Bureau of HIV/AIDS Epidemiology, September 2007

² <http://www.cdc.gov/hiv/topics/surveillance/basic.htm#lwa>

Number of New AIDS Cases reported within the past Two Years: AIDS Incidence

Sixty seven (67) new AIDS cases (i.e. incidence of AIDS) were reported in the TGA from January 2006 to December 2007. Men accounted for 80.6% and women accounted for 19.4% of the new cases. Twenty seven 27% of the new AIDS cases were White, 51% were Black, 20% Hispanic and 2% Multi-Race.

Nearly sixty three percent (62.69%) of AIDS incidence cases between January 2006 and December 2007 are 30 to 49 year old, while 29.85% are 50 years and older, and 7.5% are 13 to 29 year old. There were two (2) new cases of AIDS among children aged 13 to 19 years. In that same period, there was one pediatric case with undetermined exposure and another one with maternal transmission. The steady increase in the older category (i.e. 50 years old and older) should be noted. In 2005, the AIDS incidence in the age group 50 years or older was 14.28%; in 2006, it was 21.3%; and in 2007 it has gone up to almost 30%. This pattern may be due to availability of better therapeutics delaying the HIV positive patients from converting to AIDS.

- *Specific Disproportionate Impact of HIV/AIDS on Populations*

Minority Populations

According to US Census Bureau’s American Community Survey, 2006 Dutchess population is estimated to be 292,746. Whites comprise 77.4% of the TGA’s population, Blacks (10.2%) and Hispanics (8.4%). Yet in this TGA, Blacks are almost 20 times and Hispanics are 12 times more likely to have AIDS as compared to Whites. Race and ethnicity specific infection rates indicate a disproportionate impact on minority populations in the TGA. The race specific AIDS prevalence (the number of living AIDS cases per population) for Whites is 86 per 100,000 White population; for Blacks it is 1,690 per 100,000 Black population; and for Hispanics it is 1,033 per 100,000 Hispanic population.

As illustrated in Chart 3, in 2007, new cases of AIDS per population (the AIDS incidence rate) confirm the trend seen in previous years in being disproportionately higher in the Black and Hispanic communities.

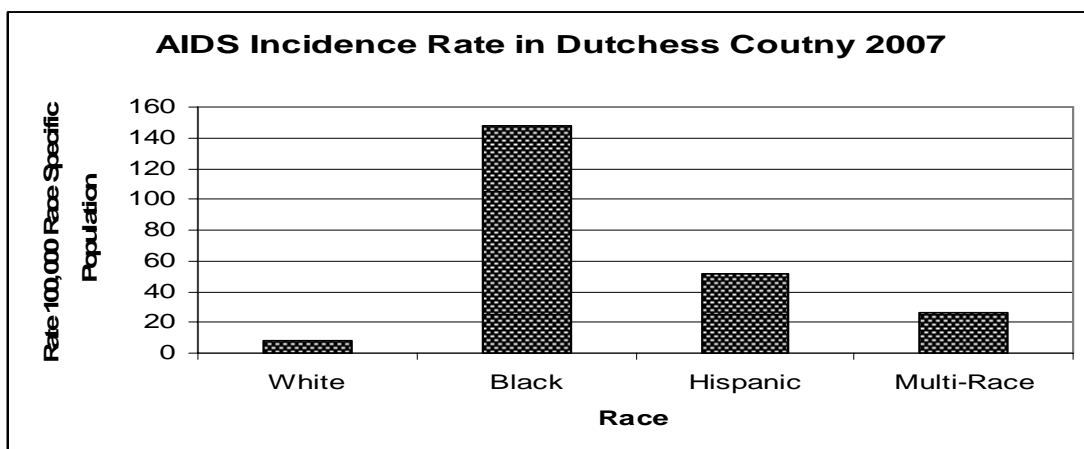


Chart 3- Source: US Census Bureau 2007 & NYSDOH HIV/AIDS Bureau, August 2008

Chart 4 below illustrates the prevalence of AIDS cases per race and ethnicity in Dutchess County, New York State and the nation. As of 2006*, the percentage of Hispanics among the

living cases of AIDS is much higher in Dutchess County (30%) than that seen in the nation (21%). Additionally, the percentage of living AIDS cases in Dutchess County who are Black (44%) is also slightly higher than that in the US (43%).³

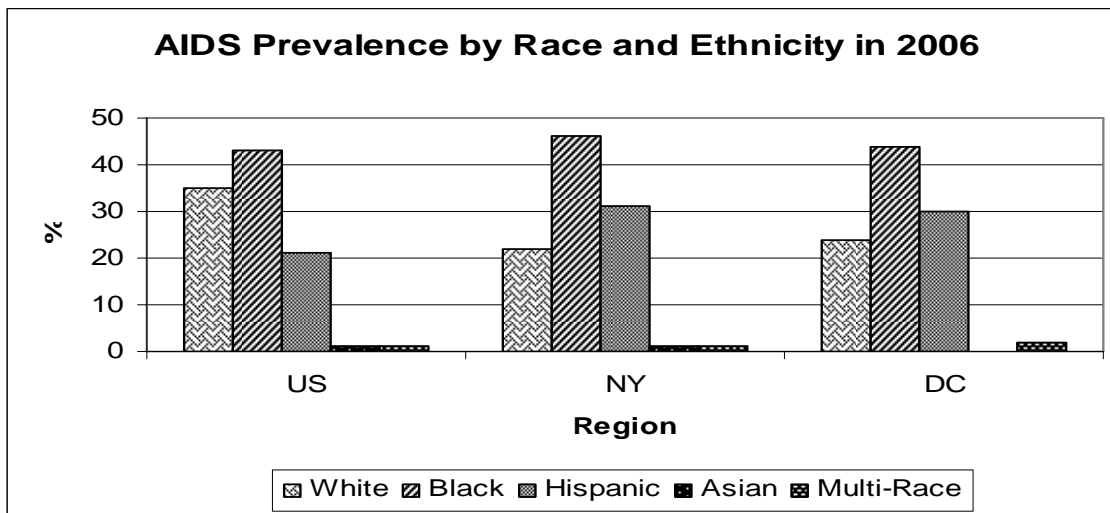


Chart 4 - Source: Dutchess County Data 2006 Provided by NYSDOH 2007, CDC HIV/AIDS Surveillance Report 2006, NYSDOH HIV/AIDS Surveillance Report 2006.

Women, specifically Black Women

In 2007, of all women living with AIDS in Dutchess County, about 52% were Black, 15% were Hispanic, and 6% were Multi-Race. Chart 5 demonstrates that *Black women have the highest incidence rate in the TGA.*

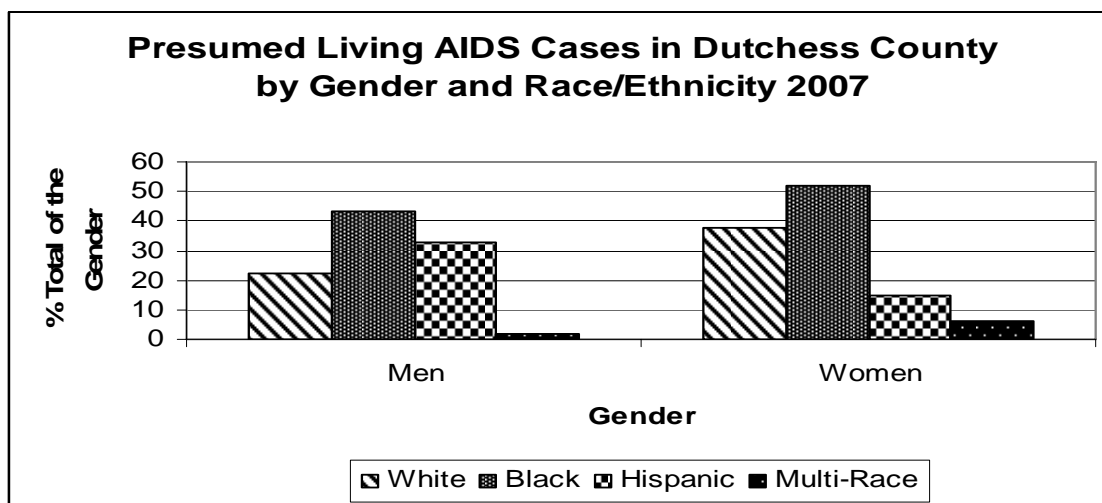


Chart 5 - Source: NYSDOH, Bureau of HIV/AIDS Epidemiology, September 2007

In Dutchess County, Black women are 21 times more likely to have AIDS compared to Whites, while Hispanics are 6 times more likely to have AIDS as compared to Whites. The race specific

³Source: <http://www.statehealthfacts.org/profileind.jsp?ind=520&cat=11&rgn=34>

*2007 data for the US and New York State are not available for comparisons.

AIDS prevalence rate for Black women is 794/100,000, and Hispanics is 29/100,000, whereas for the White women population the rate is only 39/100,000.

Incidence data from NYSDOH for 2006-2007 provides the following key statistics: Among all female newly diagnosed AIDS cases, 46% are Black, followed by White 23%, and Hispanic 23% which is a disproportionate distribution as compared to the distribution of the race and gender in the general population.

As Chart 6 shows, 38% of all women have contracted AIDS by heterosexual exposure; 31% of women with AIDS are injection drug users, and for 31% the risk exposure category is unknown.

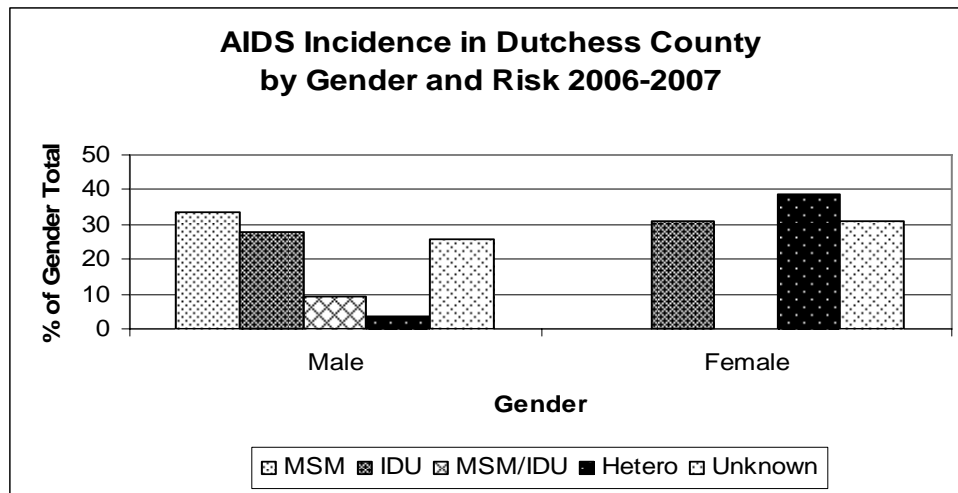


Chart 6 - Source: NYSDOH, Bureau of HIV/AIDS Epidemiology, August 2008

In 1999, Dutchess County accounted for 43% of all HIV+ results in the Comprehensive Newborn Screening Program in the Mid-Hudson region, while accounting for only 29% of the births in the same region. In 2007, no HIV+ newborns were reported in the TGA. According to NYSDOH HIV/AIDS Bureau data, in 2007, there are 13 pediatric cases living with HIV in the TGA. About 92% of the pediatric cases were HIV positive due to maternal-child transmission.

Overall, in Dutchess County prevalence and incidence of HIV/AIDS, Blacks and Hispanics, and in particular Black females, are disproportionately affected by the epidemic as compared to other regions, and require more targeted interventions.

Homeless

The Planning Council’s recent needs assessment shows that 18% of the respondents currently have no permanent living quarters. Additionally, 62% of PLWH/A surveyed are in need of more affordable housing. The limitation of this assessment is that it represents PLWH/A that are “in care.” The only glimpse the TGA has into the PLWH/A ‘not in care’ is through the Early Intervention Services (EIS). Twenty nine percent (29%) of PLWHA in EIS are either homeless or live in transitional homes.

- Representation In Ryan White Funded System of Primary Care

Local 2008 service utilization data provides a snapshot of PLWH/A populations within the TGA that are represented in the Ryan White system of primary medical care. Overall, access is

provided to all subpopulations of PLWH/A living and receiving care in Dutchess County. Fifty one percent (51.7%) of primary care clients are Black, compared to a 45% Blacks with HIV/AIDS in Dutchess County. Hispanics are under represented in primary care services at 23.2% compared to 27.3% with HIV/AIDS in the County.

Primary care service category reports 43% of its consumers are women, well exceeding the 28.89% of females with HIV disease in Dutchess County. Men tend to be under-enrolled in primary care at 53% compared to 71% of men living with HIV/AIDS in the TGA. This is consistent with research regarding health seeking behavior and gender.

Demographic Group	Dutchess Co. RWPA Primary Care Client Data	HIV/AIDS PREVALENCE Source: NYSDOH
<i>Race</i>	% of Total	% Of Total
White, Not Hispanic	35.6 %	24.00%
Black, not Hispanic	51.7 %	45%
Asian/Pacific, Islander		0.4%
American Indian/Alaska Native	-	-
Multi-Race/Other	12.7 %	7.9%
<i>Total</i>	<i>100%</i>	<i>100%</i>
<i>Ethnicity</i>		
Hispanics	23.2%	27.3%
Non-Hispanics	76.8%	72.7%
<i>Total</i>	<i>100%</i>	<i>100%</i>
<i>Gender</i>		
Male	53 %	71.11%
Female	47 %	28.89%
<i>Total</i>	<i>100%</i>	<i>100%</i>

- *Estimated Service Gaps Among PLWH/A*

In 2007-2008, the TGA conducted a Needs Assessment survey of its clients to identify current needs and gaps in services. A total of ninety eight (98) PLWH/A in the Part A continuum of care participated in the survey. Of those respondents who needed medical care, 8% did not get CD4 Counts/Viral Load tests, 6% did not get pharmacy/drug assistance/ADAP, and 3% did not get other specialty care. Additionally, while 73.5% of the respondents had no problem getting medical care, 9% had issues with transportation, 9% with the waiting period, 5% had problems because the provider did not accept their insurance, and 3% were concerned with providers not accepting new patients, and another 3% lacked ADAP and Medicaid.

Overall, consumers receiving their primary care in Dutchess County reported that they were satisfied with the quality of care they receive. Some consumers expressed frustration with staff turnover, particularly within case management positions. Nearly all respondents cited housing assistance, transportation, and case management as their top challenges.

Data about people who are “in care” cannot be generalized to those who are “not in care”, particularly regarding barriers and access issues. Many of those with unmet need are in dire financial situations and most often homeless. The TGA conducts on going “Unmet Need-Out of

Care” survey through its Early Intervention Services (EIS) workers. Results for the TGA’s ongoing “out of care” survey through the EIS program find acute issues such as finding housing, lack of insurance, language problems, legal and immigration status, transportation and active substance abuse listed as barriers and/or reasons for not accessing HIV primary care.

1. b. IMPACT OF COMORBIDITY ON COST AND COMPLEXITY OF PROVIDING CARE

Please see table in Attachments showing quantitative evidence of co-morbidity and co-factors such as poverty and lack of insurance, comparing their rates in the general county population with the rates among PLWH/A in the TGA.

The Co-Morbidity Table is a snapshot of the state of the TGA and its Ryan White clients. Client level data is regularly obtained from Part A providers. The prevalence of co-morbidities, lack of insurance and poverty was much greater among the Treatment Modernization Act clients as compared to the general population. Among those with Sexually Transmitted Illness (STI), Part A clients were almost 197 times more likely to have Syphilis, and 50 times more likely to have Gonorrhea. The rate of Chlamydia was also higher among our clients. Part A clients in the TGA are 14 times more likely to have Chlamydia than the general population. Part A clients were 30 times more likely to be injection drug users, and 17 times more likely to be diagnosed with severe chronic mental illness as compared to general population.

Compared to the rest of the TGA, homelessness among our PLWH/A was 51 times greater, but their lack of insurance rate is lower (2.9% as compared to 10.1%). This may be attributed to the fact that most of the respondents were accessing some level of care within the Ryan White system and have been screened for benefits, including public insurance. The percent of Part A clients living below the 100% Federal Poverty Level (FPL) was 12 times greater than the general population, and their 300% FPL was nine (9) times lower than the general population, emphasizing the fact that PLWH/A in our TGA are living severely impoverished lives.

Co- Morbidities

Ryan White Part A client level data shows that more than 3/4 of those infected have some level of social risks and co-morbidities. This significantly impacts the number, intensity and depth of services needed to retain people in care and ensure positive health outcomes.

➤ *Sexually Transmitted Illness (STI)*

According to the Dutchess County Department of Health (DCDOH), most of the STI cases reported in the TGA are among residents of Poughkeepsie, which mirrors the AIDS epi-center. Sixty-five percent (65%) of reported STI occur in people between the ages of 18-24.

The DCDOH STD Clinic reports an increase in the number of syphilis cases in the past four years, consistent with national trend. In 2007 the rate of total syphilis was 7.2/100,000 population. The sudden rise in syphilis is indicative of increased unprotected sexual activity, particularly within the MSM population that accounted for the most reported acute cases of syphilis. Twelve (12) cases of congenital syphilis were reported in 2007. This is an increase from 2004 when only eight (8) cases were reported. This is a phenomenon that is relatively new in the TGA, reinforcing the risk of women of childbearing age.

The incidence rate of chlamydia has been constantly rising in the past 4 years. In 2007 it was the highest at 268/100,000 population. Similarly to syphilis, chlamydia incidence is concentrated in the city of Poughkeepsie. Chlamydia infection rate is an indicator of high-risk sexual activity and its ability to facilitate HIV disease is a threat for rise in HIV.

Chart 7 illustrates a decrease in the county’s cases of gonorrhea, from 69.5 per 100,000 populations in 2004 to 66.4 per 100,000 populations in 2007. Prevalence of gonorrhea is significant among poor minority residents of Poughkeepsie and Beacon. The pervasiveness of the infection remains in these two cities and is indicative of increased risk of HIV infection.

The proximity of New York City and the surge of STI cases have, and continue to impact HIV infection rates and associated costs and complexity of providing care to PLWH/A in the TGA.

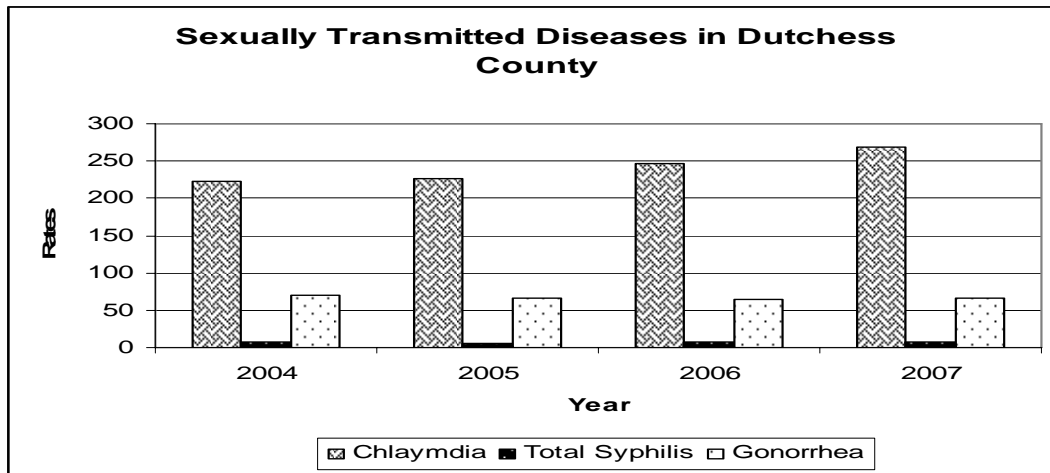


Chart 7 - Source: NYS Department of Health

https://commerce.health.state.ny.us/doh3/applinks/cdss/qreports?counties=027&quart_cumm=%2FQuarterlyRpts%2Fquartd

➤ *Housing and Homelessness -*

There is a critical need for emergency, transitional and permanent affordable housing in the county. The county has seen dramatic increases in rent in the past two years while vacancy rates remain low. The average waiting list for subsidized housing in Poughkeepsie is over two years. Additionally, the county’s 2003-2007 Consolidated Strategic Plan affirms that local shelters have a need for beds that far exceeds the current capacity.

Using the U.S. Department of Housing guidelines, the annual household income required to afford a two-bedroom apartment in the TGA is \$39,760. Ninety-five percent of the survey respondents to the Planning Council’s Needs Assessment reported an annual income *well below* \$39,000 making it extremely difficult for the county’s PLWH/A to attain affordable housing.

Declining public assistance and work opportunities could be factors contributing to the rise in homelessness. The Dutchess County Housing Consortium’s Mid Hudson Valley Homeless Management Information System (HMIS) reports in the last 12 months (2007) about 1,035 counts of homeless individuals in the TGA. Of these individuals, 567 (55%) met the Housing and Urban Development definition of “Homeless”. But as cautioned in the report, this is a snap shot and ‘should be considered absolute minimums of actual people who are homeless in our region’. This report only captures data about people who have accessed HUD-funded services; it

cannot be generalized to the homeless population. The Living Room (a program from Homeless and MICA) served 794 individuals, made 20,243 visits in 2007. The County Department of Social Services reported 574 people placed in emergency temporary housing in 2007.

The gap analysis done by the Dutchess County Housing Consortium supports other research findings that a majority of homeless adults suffer from severe mental illness, substance abuse and other chronic health problems. It also reveals a shortage of residential services for the homeless who are mentally ill, chemically addicted, and multiply diagnosed. The analyses also showed that about 36% of the homeless were Black and about 6% were Hispanics.

Seventy four percent (74%) of the respondents of the last needs assessment indicated that they rented, while 9% lived with family/friends. Three percent (3%) of the respondents reported living in subsidized housing, 3% in half way homes, and 1% had no permanent residence. Twenty nine percent (29%) reported needing subsidized housing, and 23% needed housing for people recovering from substance abuse. Those PLWH/A who were out of care were not represented in this survey and many have a higher and more acute need for better housing. Preliminary FY 2008 reports indicate that one-third of clients engaged in the EIS program are homeless.

Care for homeless patients, especially those with HIV/AIDS, places significant financial pressure on local hospital systems. Homeless patients cost the facilities \$2,400 more per admission and have length of stays 4.1 days longer than other low-income patients. Homeless patients admitted for psychiatric problems cost hospitals \$4,094 more than other low-income patients, and homeless AIDS patients cost \$3,370 more per admission (source: HIV Resource Utilization Data Coordinating Center (DCC) project. 2005).

➤ *Lack of Insurance*

According to latest US Census Bureau, Current Population Survey 2006, about 14% ($\pm 0.4\%$) residents of NYS are uninsured. In the TGA, the uninsured represent 10.7% of the population. The proportion of PLWH/A in the TGA with no insurance is 3%, lower than the general population (Attachment 4). However, this does not include “out of care” PLWH/A, who are more likely to be uninsured. Comparatively, NYS Department of Health shows 33% of those with HIV/AIDS are enrolled in Medicaid, ADAP or other public insurance.

A recent survey of the Hudson Valley region done by the Marist College Institute for Public Opinion revealed that making health care affordable was the top priority for the local resident. More than 4,300 adults were interviewed between April and June 2007, and the margin of error was 1.5%. A similar study in 2002 ranked health care affordability third, behind keeping businesses in the area and improving the quality of public schools. In 2007, affordable health care topped the list in Dutchess, Ulster, and Orange counties. The researchers believe that rising insurance premiums, decreases in Medicaid and Medicare eligibility and reimbursements, and an aging population are driving the increasing concerns.

Dutchess County launched a discount card program to help consumers cope with the high price of prescription drugs. Free prescription drug discount cards are available under a program sponsored by the National Association of Counties that offers average savings of 20% off the retail price of commonly prescribed drugs. As of December 31, 2007, the program cumulatively

has served 10,501 people, with over 15,000 prescriptions covered, yielding a year to date price savings of \$358,409 or 25% price savings for prescriptions filled.

➤ *Poverty*

Poverty impacts the TGA's ability to provide comprehensive care at every service juncture. Costs of providing HIV specific health care, costs incurred by support services such as transportation, emergency financial relief and food pantry, place a drain upon the TGA's limited service budget. In 2007, The County Department of Social Services reported that it provided Food Stamp Benefits and helped over 6,100 low income households purchase needed food valued at \$13,376,785. This represents a 28% increase over 2006.

The PLWH/A in the TGA are from disenfranchised racial and ethnic groups, often socio-economically disadvantaged with multiple co-morbidities. In 2007, eighty-eight percent (88%) of Part A clients live at or below the Federal Poverty Level (FPL), compared to 7.2% of the general TGA population. In addition, while 78,132 people (28.4%) of Dutchess County residents live at or below the FPL of 300%, ninety eight percent (98%) of Part A clients live below the FPL of 300% as indicated by the Part A client level data collected in 2007.

Data from the recent needs assessment conducted by the TGA indicate that disparity is even greater for women PLWH/A. Among the respondents, about 91% of women and 72% of men with HIV were living at or below 300% FPL. ADAP indicates that approximately 75% of Dutchess County enrollees are persons who are at or below 300% FPL.

➤ *Formerly Federal, State or Local Prisoners Recently Released*

The prison population is an unpredictable variable in the TGA's planning and assessment process because prison data tends to be unreliable. In addition to the Dutchess County jail, there are four State prisons in the TGA, housing approximately 6,500 state prisoners representing 10% of NY State's prison population. Estimates of state prison inmates' HIV morbidity vary considerably (2.4%, Bureau of Prisons and 21.5%, National Institutes of Justice, 2000) depending on the sources. This variance in incarcerated HIV/AIDS cases has significant implications for prevention, planning and resource allocation within the TGA.

During 2006 and 2007 there were 433 known PLWA who were inmates in Dutchess County, and 23 inmates were newly diagnosed. Of the PLWA, about 34% were between the ages of 20 and 44 years, and 66% were above the age of 45 years. The majority of PLWA inmates were black (47%) and about 41% were Hispanic. About 58% PLWA who were inmates acquired HIV/AIDS through IDU, and 7% were MSM.

Inmates with HIV/AIDS are frequently admitted to the county's hospitals. Injection drug use rates for prisoners are about 20 times higher than for the general population. The rates of HCV, HBV, STI, TB and mental illness are higher in incarcerated populations than the general population and present unique challenges to ensure treatment and care when they are released into the community. The two primary care providers coordinate with the local jails to provide infectious disease specialty care for HIV+ prisoners. Working with the Part B discharge planners these clients are linked with case management services and continuation of primary care.

While it is difficult to quantify the numbers of recently released prisoners in the TGA during the preceding 3 years, impact is seen in the service system. Current and formerly incarcerated are impacted disproportionately by HIV. In Dutchess County, nearly 45% of respondents to the last needs assessment reported being formerly incarcerated. Within this population, an alarming 40% are women, 58% are black and 14% Hispanic. There are also a number of older PLWH/A who were previously incarcerated, roughly 45% are 50 years or older in age and another 47% are between the ages of 30 and 49 years. About 83% of these individuals had no job at the time of the survey and only 70% have a permanent home.

As Dutchess County is a commute away from New York City, the TGA receives prisoner releases from the entire state. The TGA contains Fishkill Correctional, one of the largest “reception and release” prisons. This transitional prison usually contains inmates either on their way to or as part of their transition from long term facilities, with an average stay of 16 months. Part A providers collaborate with local probation services to ensure these clients receive comprehensive care services, particularly HIV primary care, and case management services.

The formerly incarcerated face numerous challenges upon release; securing housing and income supports and dealing with substance abuse issues. They often lack the support and life skills to successfully transition to community life. These clients access Ryan White funded food pantry and emergency financial services immediately upon release. In the Needs Assessment 92% of formerly incarcerated had family income below 100% of FPL and 80% had less than high school level of education. Eighty-one (81%) had been unemployed.

The range and intensity of treatment and support services the formerly incarcerated requires for successful return to the community is staggering. Reports from RW funded providers state they are experiencing an “increase of just released clients from jail and prison.” These clients often require an increased level of clinical resources such as HCV treatment and other specialty care as well as intensive supportive services to keep this vulnerable population engaged.

1. c. ASSESSMENT OF POPULATIONS WITH SPECIAL NEEDS

The TGA’s targeted populations are substance abusers, particularly IDUs; women of childbearing age, particularly black women; and the emerging immigrant populations, particularly male Mexican immigrants. These special populations are the most marginalized and vulnerable within the TGA and are at significant risk for HIV infection. Attention to their unique needs is essential in planning for comprehensive interventions and associated costs.

- *Injection Drug Users and other Substance Abusers*

Substance Abuse may be the primary co-morbidity within the TGA, which lays a significant burden on its resources. HIV-infected substance users often face a health and social services system that stigmatizes them and erects multiple barriers to providing the care they require. As a consequence, their patterns of health care utilization and the quality and continuity of care they receive are far from optimal.

Over 20,000 people in the TGA are estimated to be struggling with substance abuse. According to the Dutchess County Department of Mental Hygiene annual program report, over 8,139

county residents were admitted to alcohol and substance abuse treatment in 2007. In that same year, 275 persons received 54,655 service visits by the TGA's Methadone treatment services. This number is only a small proportion of people struggling with substance abuse. According to NYSDOH SPARCS data, in 2007, there were 1,921 alcohol and substance abuse related hospital discharges in Dutchess County with an average charge of over \$14,000 per patient.

In Dutchess County injection drug users make up 46.27% of the AIDS prevalent cases, making them the largest special needs population in the TGA. The results of the recent needs assessment clients' surveys indicate that about 30% attribute their exposure risk to IDU. Many IDUs in the TGA are minorities (39% of all Black and 31% of all Hispanic PLWH/A), living in poverty (29% of all IDU PLWH/A indicated an annual income of less than \$20,000). They reported being without health insurance, and it is estimated that more than half are suffering from some form of mental illness. IDUs have other co-morbidities, such as tuberculosis, HCV, and STI.

According to the needs assessment, substance abuse treatment services, both in and out-patient services are needed by PLWH/A who are already in care. While generalized mental health and substance abuse support services exist in the TGA, HIV and other co-morbidity necessitates a significant portion of the TGA's service allocation go to this category.

Cost and Complexity of providing care include the increased cost of specialized outreach and engagement to find IDUs and link to an already overwhelmed Substance Abuse treatment system. 2003 HIV Cost Resource Utilization data cites the average inpatient cost per day for an IDU is \$5,342.23. If each PLWH/A-IDU were to be admitted to the hospital for just one day, the cost would exceed three times the TGA's Part A award for FY 2007. There are no specialized IDU treatment system in place besides detoxification and methadone maintenance, and hiring just one additional licensed professional to serve this population would cost the TGA an estimated \$50,160.

- *Women of childbearing age – Especially Black women*

The 2006 New York Statewide Coordinated Statement of Need and Comprehensive Plan, revealed 18,000 heterosexual AIDS cases; 80% of those cases were women. Thirty six percent (36%) of female AIDS cases attributed to heterosexual contact were due to sex with an injection drug user. Of the 2,320 AIDS cases reported among children under the age of 13 in NYS, 52 % acquired HIV from a mother who injected drugs or who was the sex partner of a drug injector.

Heterosexual women have a higher chance of being unaware of their status. This has major health implications on the risk of vertical transmission. Data from the NYS Comprehensive Newborn Screening Program indicates that women giving birth in New York State had a prevalence of 0.30% (n=727), or approximately 1 in 333 women giving birth. In the Mid-Hudson Region (which includes Dutchess County) the prevalence is 0.17% (n=17), or approximately 1 in 588 women giving birth had a positive HIV test result.⁴

In Dutchess County, as of December 31, 2007, women accounted for 18.76% of the living AIDS cases and represented 28.89% of the HIV living cases. Of all women presumed living with AIDS

⁴ Source: May 2008 <http://www.health.state.ny.us/diseases/aids/reports/scsn/index.htm>

in the TGA, 52% were Black, 15% were Hispanic and 6% were Multi-Race. Chart 8 illustrates the burden of the disease among Black women in the TGA.

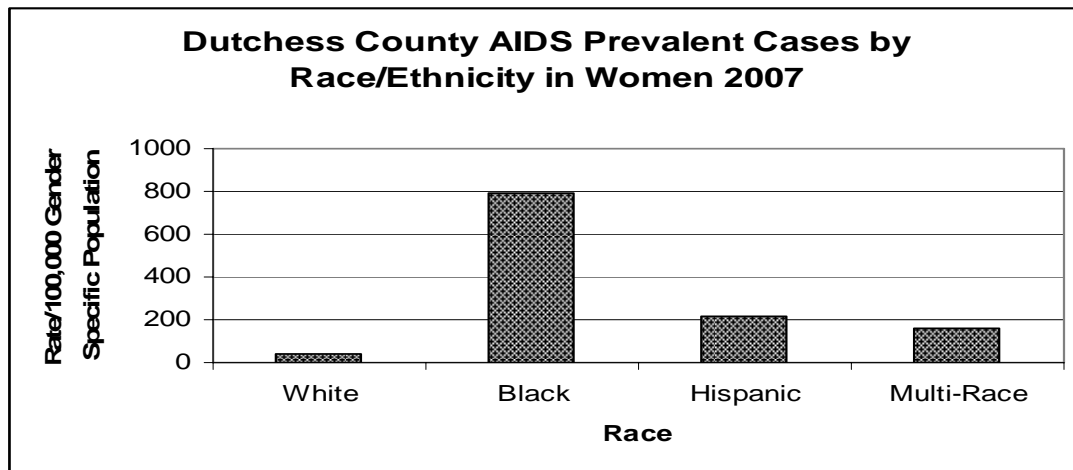


Chart 8 - Source: NYSDOH, Bureau of HIV/AIDS Epidemiology, September 2007

New cases of AIDS in women (i.e. AIDS incidence) have fluctuated from 20% in 2005, to 23% in 2006, to 19.4% in 2007 in the TGA. In 2006-2007, 46.2% of the AIDS incident cases (new cases) are among women of childbearing age 13 to 44. According to NYSDOH 2006-2007 data, 45% of AIDS prevalent cases are among women of child bearing age of 13 to 44 years. The majority of reported female AIDS cases in the TGA are from Poughkeepsie (with 44%) and Beacon (with 11%). Historically, HIV+ infants are from Poughkeepsie (70%).

Most women who are HIV positive in the TGA live in poverty. The socioeconomic status of women negatively influences access to health care. When women face unmet subsistence needs (such as housing, food, and child care), they have little time or resources to devote to their own health. The impact on their lives and on the lives of those who may be in their care can be catastrophic.

Service providers report that at-risk women struggle with a variety of issues including substance abuse, mental illness and domestic violence. Women may resort to trading sex for drugs or money, putting them at risk for HIV infection, incarceration or crime victimization. Women of childbearing age, especially women of color who are at higher risk of HIV infection due to substance use or partners who are infected, are identified for special consideration by both HRSA and the TGA.

Services to pregnant women, especially newly diagnosed, require high level of expertise for both high-risk medical management as well as additional supportive services. They need intensive case management services because they live in poverty, they often head single parent households, and they need transportation and child care.

Cost and complexity of providing care for women include greater specialty care needs, i.e. OB/GYN, metabolic syndromes, and medication adherence. Each one of these specialty categories, particularly specialized OB/GYN and oncology incur a huge cost and add to the complexity of care. The NYSDOH SPARCS data indicates that in 2007, the average cost of hospitalization with HIV/AIDS without any other related diagnosis was \$24,125.

- Immigrants – Hispanic Men

While Hispanics represent only 8.4% of the TGA population, the incidence of AIDS cases among Hispanics has risen to almost 20%. As discussed in the epidemiology section of this document, Hispanics are 12 times more likely to have AIDS in Dutchess County than Whites. The migrant worker populations in the eastern and northern sections of the county, who are mostly Hispanics, tend to be disconnected from the traditional service system.

Mexican families in particular are often in the lowest income brackets, usually have language barriers, and are less likely to have access to quality health care than more established residents. Moreover, the DCDOH STD clinic reports it is common for Mexican men seen at the clinic to report contact with sex workers more often than other populations seen at the clinic.

Only ten percent of the respondents in the last needs assessment were Hispanic. This indicates that Hispanic PLWH/A are underrepresented in care and and/or not represented in the survey. Forty percent (40%) of the respondents indicated they first tested positive outside of the TGA. The Hispanic respondents were more likely than Whites or Blacks to report being without health insurance, and most reported a family income below \$10,000. Service providers report healthcare and insurance as the greatest issues for their Hispanic and immigrant clients (re: 2008 United Way and Community Foundation's Hispanic/Latino and Immigrant Communities Assessment)

Cost and Complexity of providing care include intensive culturally and linguistically competent outreach and engagement in a population which tends not to engage in care- trust, fear and stigma, legal barriers, immigration issues, transient nature of clients employment, isolation from current sources of assistance (i.e. Social Services, food and nutrition, ongoing medical care). The typical insurance reimbursement for an office visit is anywhere from \$50 to \$100 on average, and translator fees can be approximately \$75 per hour. (The Business Journal, September 2008).

Currently, Dutchess County is experiencing a shortage of Spanish-speaking service providers at all levels of care. There was a slight decrease in Hispanic representation in primary care, possibly due to staff turn over and the lack of bilingual case managers who assist in maintaining “at risk” clients in care. Capacity of bilingual staff throughout the continuum is essential, but will increase cost of services in the TGA significantly. Beyond language, the subtleties of cultural competency in relation to HIV can greatly impact trust, disclosure and maintenance in Primary Care.

The Commonwealth Fund and Center for Child and Human Development, Georgetown University studied cost impact of providing language access services (October, 2006). The project found data estimating that it would cost \$268 million per year to provide interpretation services in a variety of health care settings (including emergency rooms, outpatient visits at community health centers, hospitals, private providers, and inpatient hospital stays) for people with limited English proficiency, according to a report from the U.S. Office of Management and Budget.

The U.S. Office of Management and Budget also documented \$132 per hour for language line services (contracted, multilingual medical interpretation services provided via telephone). Adding just two Spanish speaking Social Workers in the TGA's Ryan White Part A Care system would cost an additional \$121,750 per year.

1. d. UNIQUE SERVICE DELIVERY CHALLENGES

Most PLWH/A in the TGA live in unstable, marginalized circumstances making it very difficult to engage and retain them in care. PLWH/A face a combination of co-morbidity and psychosocial barriers to accessing care, making this TGA's HIV population extremely costly in terms of the range of services required and the intensity of services delivered. Circumstances unique to Dutchess County include factors such as HCV and Tuberculosis prevalence, the multiple diagnosed and severe mental illness, lack of specialty care and the limited public transportation, as well as language and cultural competency barriers.

- *Hepatitis C*

In addition to the sexually transmitted diseases described earlier, patients with hepatitis C co-infection are more complex medically, require more patient time per visit, and increase the cost of diagnosis, monitoring, and treatment. The recent needs assessment indicated that 29% of respondents with AIDS had hepatitis C. Specific to the PLWH/A population, the Part A primary care providers reported 41% of patients are co-infected with the hepatitis C virus, with Blacks and Hispanic patients being more likely to be hepatitis C positive. All of the HIV/HCV co-infected clients enrolled in Part A primary care list IDU as their principal risk for HIV and HCV. In 2006 Managed Healthcare Executive estimates the hepatitis C treatment costs about \$30,000 per year or more.⁵

- *Tuberculosis:*

In Dutchess County, the tuberculosis prevalence rate between 2003 and 2005 was 2.4/100,000 population⁶. However, the prevalence rate of tuberculosis for the PLWH/A in the TGA was 2,681/100,000 PLWH/A in 2007. There were 2 cases of newly diagnosed AIDS who were also diagnosed with confirmed Tuberculosis in 2007.

Tuberculosis has reemerged in the PLWH/A with increasing concerns of multi drug resistance and non compliance in therapy due to prolong duration and the high cost of treatment. Multi-resistant TB requires longer and costlier treatment – up to \$137,000 per patient to treat. This estimate is for medical care only and does not include the additional expense of providing critical supportive services, such as directly observed therapy, contact investigations, and language interpreter services (Source: March 2007, Minnesota DOH TB Prevention and Control Program).

- *Severe Mental Illness and the Multiply Diagnosed*

In 2006, the distribution of mentally ill patients in Dutchess County was concentrated much like HIV, in the two main city areas of Poughkeepsie (with 56% of the cases) and Beacon (with 25% of the cases). A total of 18,418 persons diagnosed with mental illness were served at the various mental health counseling centers within Dutchess County, of which 24% are dually diagnosed with both substance abuse and mental illness.

⁵Source:<http://managedhealthcareexecutive.modernmedicine.com/mhe/Disease+Management/Viral-hepatitis-C-management-involves-some-tough-d/ArticleStandard/Article/detail/301716>

⁶Sources: NYSDOH, <http://www.health.state.ny.us/statistics/chac/general/tb.htm>

People with mental illness (MI) are at higher risk for HIV than those without MI (re: Cournos and McKinnon, 1997; Stoskopf et al., 2001). Among people with serious mental illness, the sero-prevalence of HIV averages seven percent (7%), much higher than the rate of HIV in the general United States population (0.3–0.5 percent) (Carey et al., 1995; Cournos and McKinnon, 1997). FY 2006 program reports indicate among people in HIV care, the prevalence of some sort of mental illness is 50%.

According to NYSDOH SPARCS data, in 2007 there were 1,643 mental diseases and disorder related hospital discharges in Dutchess County. And according to the New York State Office of Mental Health, 2007 Patient Characteristics Survey, there were 3,083 service units provided by Mental Health Providers of Dutchess County in a week. Of these 3,083 service units, 22% were provided to Black and 10% to Hispanic population. The average charge for such inpatient mental disorder hospital stay during 2007 was over \$22,000 per patient.

The treatment of MI-HIV co-morbidity is more complex than the treatment of HIV alone or Mental Illness alone. Both MI and HIV treatment require a wide array of long-term services, including medication, counseling, patient education, risk reduction strategies, and other supports and services. Monitoring and treatment of substance use are also vital. Research done by the Institute of Medicine and Board of Health Promotion and Disease Promotion (2006), supports that treatment of HIV and significant mental illness requires long-term reliance on multiple medications, alone or in combination with other therapies. The complexity of medication dosing and the severity of side effects are some of the main determinants of adherence. The care demands are so great that coordination of care and attention to social supports are essential.

Increasing drug costs are another concern for MI-HIV co-morbidity. There is also the high and rising cost of psychotropic medications. The National Institute on Health Care Management notes the introduction of new brand-name drugs has produced large price increases in HIV anti-retrovirals as well as psychotropic medications (NIHCM, 1999). Price increases are reflected in expenditure figures. During 1993–1998, psychotropic drug expenditures rose 462% for anti-psychotics, and 241 percent for antidepressants (NIHCM, 1999). Increasing cost for medication has placed already strapped public mental health programs in financial jeopardy.

Co-occurring mental health and substance abuse disorders are a significant problem in the TGA. The substance abuse program reports that two-thirds of its caseload is considered multi-diagnosed. The TGA's FY2008 Primary Care providers noted over half of the caseload is considered multiply diagnosed. Individuals with co-occurring disorders tend to be more symptomatic, to have multiple health and social problems, and require more costly care.

Successful treatment for people with multiple diagnoses encompasses a wide scope of services and requires intensive resources. Some of these services do not exist outside of metropolitan areas. Many individuals cycle in and out of other costly treatment settings, such as hospital emergency rooms. Some are inappropriately treated in other settings, such as prisons. Some become homeless and may be receiving no treatment at all. Successful MICA programs are usually designed with a 3 to 1 staff to client ratio. Currently the TGA employs *one full time* employee for the approximate 400 PLWH mentally ill/ substance abuser in Dutchess County.

- *Lack of Specialty Care & Transportation issues*

The absence of a teaching hospital or a Designated AIDS Center in the TGA makes it necessary for some residents to seek specialty care in neighboring areas of Kingston, Albany, and Westchester. PLWH/A often rely on Part A funded transportation to access services that are not available in the TGA. Twenty percent (20%) of the last Needs Assessment respondents stated they receive all or some of their Primary Care services, out of the TGA.

Part A Primary Care providers have been resourceful in arranging specialty care by referral to their affiliated sites, however due to insurance constraints and lack of providers, nearly all specialty care is accessed *out of TGA*, in neighboring counties. FY 2008 Part A transportation provided a total of 215 rides, of which 19 (11%) were out of TGA medical rides. The out of TGA rides totaled \$1,295 averaging a cost of \$68.16 per ride. Transportation for this region is continually identified in the Statewide Comprehensive Statement of Need (SCSN) for New York. Transportation concerns topped the service gaps at the recent Part B listening forum held September 17, 2008 for the entire Mid-Hudson region. Traveling significant distances impacts a consumer's compliance with health care visits. Many PLWH/A first access the local system in a serious health crisis, with intensive and costly medical and psycho-social needs. These issues have unique repercussions on the TGA's Part A continuum of care.

- *Language and Cultural competency*

As discussed in the epi section of this document, Hispanics are 12 times more likely to have AIDS in Dutchess County than Whites. Currently, Dutchess County is experiencing a shortage of Spanish-speaking service providers at all levels of care. The migrant worker populations in the eastern and northern rural sections of the county, who are mostly Hispanics, tend to be disconnected from the traditional service system. Cultural and linguistic competence requires outreach activities, relationship building, and stability of workforce to build trust. Unfortunately these activities take staff time, these kind of system level outcomes can be difficult to measure and funders rarely pay for these kind of activities which are essential in connecting people to care. With the added stigma and lack of awareness, the subtleties of cultural competency in relation to HIV can greatly impact trust, disclosure and maintenance in Primary Care.

The Grantee assures the cultural and linguistic competence of sub-grantees, through both the Request for Proposal and contract language which identifies meeting standards of cultural and linguistic competencies. In FY 2007 and 2008, service providers were provided with HRSA's *Indicators of Cultural Competence in Health Care Delivery Organizations: An Organizational Cultural Competence Assessment Profile* and *Cultural Competency Organizational Self-Assessment (OSA) Question Bank* as assessment tools. Additionally, during site visits, the Grantee provided links to the HRSA's Cultural Competency web pages with resources directed toward identified populations (Black and Hispanics).

Service providers report difficulties in hiring competent workers. Because of high demand, a bilingual staff can earn up to 20 percent more than their peers. Hence, it has taken the two MAI service providers three to four months from the start of their contract period to recruit and hire reflective and culturally competent staff.

To address barriers to care and reduce disparities, the Dutchess County TGA supports a range of interventions aimed at increasing access to and maintenance in the HIV continuum of care. The established mechanisms within the TGA enable newly infected, underserved, hard-to-reach individuals, emerging populations and/or disproportionately impacted communities of color to access and remain in primary medical care. The referral system has increased the linkages between providing agencies, helping to establish an effective and efficient *continuum of care*.