Commonwealth of Pennsylvania Department of Health

PENNSYLVANIA DEPARTMENT OF HEALTH INTEGRATED EPIDEMIOLOGIC PROFILE OF HIV/ AIDS IN PENNSYLVANIA 2009 – 2010



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PENNSYLVANIA DEPARTMENT OF HEALTH INTEGRATED EPIDEMIOLOGIC PROFILE OF HIV/ AIDS IN PENNSYLVANIA 2009 – 2010

Contributors and Collaborating Partners

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PENNSYLVANIA DEPARTMENT OF HEALTH INTEGRATED EPIDEMIOLOGIC PROFILE OF HIV/ AIDS IN PENNSYLVANIA 2009 – 2010

EXECUTIVE SUMMARY

The Pennsylvania Department of Health (PADOH) is presenting the 2009/10 Summary Report of the Integrated Epidemiologic Profile of HIV/AIDS in Pennsylvania providing a comprehensive evaluation of data collected through different sources that are intended to provide epidemiologic /scientific resources in support of evidence-based planning for HIV/AIDS prevention and care activities. The HIV/AIDS Surveillance and HIV/AIDS Investigation Sections of the Division of Infectious Disease Epidemiology (IDE), Bureau of Epidemiology (BOE) are the primary entities in the Commonwealth with the capacity and responsibility for: a) HIV/AIDS surveillance and epidemiologic investigations; b) providing data and ongoing epidemiology support to prevention and care service development, evaluation and community planning processes (including participating in planning and implementation meetings, prioritization of realth-care resources, and project the future impact of the disease); and c) disseminating surveillance data through publications and presentations throughout the Commonwealth. Important uses of the collected data involve supporting the Prevention and Care Planning (PCP) programs during their planning process.

As outlined in greater detail in this profile, the data collected and presented here, clearly demonstrate that the current HIV/AIDS situation in PA is increasingly taking its toll in the heterosexual population (whose probable modes of transmission are unprotected male-female sexual contact and sharing of injection equipment by injecting drug users), affecting predominantly and disproportionately vulnerable minority communities (blacks/African-Americans and Hispanics/Latino/as especially) and younger age groups, while it continues to pose a disproportionate threat to men who have sex with men.

In accordance with the Centers for Disease Control and Prevention (CDC), and the Health Resources and Service Administration (HRSA) Integrated Guidelines for HIV/AIDS Epidemiologic Profiles, this report represents a break from the previous approach of providing separate profiles for the two main HIV intervention program planning processes, namely CDC-mandated prevention planning and HRSA-mandated care services planning. But although this profile presents an integrated approach to prevention and care planning, for analytical reasons a number of analytical approaches used in previous epidemiologic profiles have been retained, consolidated and updated as they were very timely in foreseeing the need to describe the growth rate of persons recently diagnosed or living with HIV/AIDS, highlighting changes in the epidemic and the disproportionate impact.

The tables, graphs and analysis presented in this report depict the public health emergency created by HIV/AIDS in Pennsylvania. The Commonwealth of Pennsylvania had 101.55 cases of HIV (non-AIDS) per 100,000 population, and 168.96 cases of AIDS per 100,000 population in 2007, which ranked in the upper 20 states for either HIV (non AIDS) or AIDS case rates in the US. HIV/AIDS is increasingly taking its toll among injecting drug users and their female sexual partners, in communities of color and it continues to pose a significant threat to men who have sex with men. Almost 1/3 of all prevalent/living HIV cases in recent years (2003 onwards) were directly or indirectly due to injecting drug use (IDU), and another 1/3 occurred among men who have sex with men. More sobering is the realization that the epidemic is now predominantly affecting heterosexuals [>55% of prevalent/living cases are among those whose probable modes of transmission include both IDU (26%) and heterosexual contact (30%)], while continuing to pose a significant and disproportionate impact on MSM (with 36%, comprised of 32% among MSM, and 4% among MSM-IDU). We also highlight the ensuing cascade of intersecting sub-epidemics which involves IDU males and childbearing-age females who are IDU or (hetero-) sexual partners of IDU, and their children. Racial/ethnic minorities are disproportionately affected as they account for over 60% of persons

living with HIV in PA in recent years from 2003 onwards; in particular blacks account for 51% of living cases although they account for 10.6% of the population (11 times the rate, per 100,000 population, compared to whites), followed by Hispanics with 13% of living HIV cases although they account for 4.4% of the population (9 times the rate, per 100,000 population, compared to whites). Our analysis of recent epidemic growth rates indicates that there were 5 counties that were identified as high outcome counties based on a) a general population of greater than 500,000, b) high average annual rates of increase in HIV/AIDS prevalence (>+6%, between 2004 & 2007), and c) high background HIV prevalence rates (> 90 cases per 100,000 population): i.e. Allegheny, Bucks, Delaware, Montgomery and Philadelphia Counties. Survival after diagnosis with AIDS is improving over time resulting in an increase in the pool of persons living with HIV who may be at risk of transmitting HIV. Prevention and care services must therefore be correspondingly increased and focused on this growing potential source population which may be the driving force of the epidemic.

PENNSYLVANIA DEPARTMENT OF HEALTH INTEGRATED EPIDEMIOLOGIC PROFILE OF HIV/ AIDS IN PENNSYLVANIA 2009 – 2010

A. Overview of Changes in the HIV/AIDS Epidemic in Pennsylvania:

1. Objectives and Study Population:

To facilitate evidence-based targeting of planning and distribution of prevention and care resources in PA, the PADOH conducted various analyses to assess changes over time in the impact of the HIV/AIDS epidemic on various demographic and behavioral risk groups, as well as changes in AIDS survival in the pre- and post-HAART (highly active antiretroviral therapy) era. Additional analyses were conducted to examine the disproportionate impact of these changes on various risk groups and infer the consequent impact on resource needs. The objective was to facilitate more evidence-based targeting of planning and distribution of prevention and care resources.

The PA HIV/AIDS surveillance data is currently processed and maintained in the PA-NEDSS which is a Web-based application designed by the PADOH to facilitate public health disease reporting, surveillance and case management. A major functionality of PA-NEDSS is that it allows electronic transmission of disease reports directly from hospitals, laboratories, and physicians across the Commonwealth of PA to the PADOH. As disease and laboratory reports are submitted in PA-NEDSS, they are distributed on a real-time basis to their respective jurisdictions allowing public health staff to access the reports and begin proper epidemiological investigation and to determine proper classification of the report. Data conversion of Pennsylvania's HARS database to PA-NEDSS occurred in December 2005.

Since HIV/AIDS reporting was initiated through December 31, 2009, a total of 37,354 AIDS cases were diagnosed and reported in PA. In October 2002, Pennsylvania implemented name-based HIV reporting while Philadelphia County started in October 2005. The implementing regulations for HIV reporting included collection of HIV data retrospective to January 2000. The number of unduplicated cases of HIV infection diagnosed reported through December 2009 was 14,738. Among those 14,738 cases, a total of 14,486 (98.3%) were adults and the remaining 252 (1.75%) were pediatric cases. In addition, 656 incidents met the case definition for perinatal exposure to HIV during the same timeframe.

2. Highlights of Key Findings of Analyses

a. Overall Trends in HIV and AIDS in the Commonwealth of PA:

The overall prevalence of HIV cases continues to rise since Pennsylvania started HIV case reporting in 2002. On the contrary, annual AIDS incidence has fallen over time from its high levels in the late 1980's and early 1990s. These two findings go hand-by-hand and can be attribute to more effective treatments for people with HIV infection.

In 2006, there was an unexpected increase in the number of AIDS cases diagnosed compared with the immediate preceding four years. This increase is considered a reporting-artifact attributable to the data conversion of Pennsylvania's HARS database to PA-NEDSS occurred in December 2005 and to the Electronic Laboratory Reporting (ELR) of low CD4 counts in PA-NEDSS which has vastly improved both timeliness and completeness of case reporting in the Commonwealth.

Figure 1



Trends in HIV and AIDS cases (excluding Philadelphia)

* Retrospective reporting from 2000-2002

b. Disproportionate Distribution and Impact:

An analysis of the growth rate in HIV and AIDS prevalence from 2004 to 2007 showed 5 counties that were identified as high outcome counties (i.e. Allegheny, Bucks, Delaware, Montgomery and Philadelphia). These counties had high average annual rates of increase in HIV/AIDS prevalence (>+6%) AND high background HIV prevalence rates (> 90 cases per 100,000 population) AND a general population \geq 500,000 persons.

Racial/ethnic minorities are disproportionately affected as they account for over 60% of persons living with HIV in PA since 2003, although they collectively account for hardly 15% of the general population; in particular blacks account for 51% of living cases although they account for 10.6% of the population (11 times the rate, per 100,000 population, compared to whites), followed by Hispanics with 13% of living HIV cases although they account for 4.4% of the population (9 times the rate, per 100,000 population, compared to whites).

Figure 2 Indicators of HIV Epidemic Growth (over Time) by Geographic Area: Time-Space Analyses.



c. Changes in Survival:

Overall median survival time was estimated to be 63 months for the statewide cohort (including HIV presumptive cases and pediatric cases); and improved over time for those diagnosed in 1984-1995 (excluding Philadelphia County and Correctional Facilities):

- 1984-1985, 9 months
- 1986-1987 13 months
- 1988-1989, 19 months
- 1990-1991, 22 months
- 1992-1993, 27 months
- 1994-1995, 63 months
- 1996-2002 undefined [Please note: Median survival time could not be estimated for this time interval as more than 50% of diagnosed cases remained alive, and thus there was an insufficient sub-cohort with the outcome of interest(death) for survival analyses]

An alternative approach using life-table analyses was employed which indicated that 12.5% of patients survived at least 48 months in the 1984-1985 cohort, increasing to 46% and 68% for the 1994-1995, and 1996-1997 cohorts, respectively. After 1996, the proportion surviving at least 48 months rose from 77% in 1998-1999 to 83% in 2002. The likelihood of better survival (>63 months) was higher for those who met the 1993 case definition only with low CD4 counts but no other AIDS-defining illnesses (ADIs) than for those with opportunistic infections. Those who met the 1987 case definition (with ADIs) were much more likely to have poorer survival (likelihood of surviving <=63 months). Risk

of poor survival increased with increasing age at diagnosis. IDUs had slightly better survival than MSM & Heterosexuals. Blacks had much poorer survival and whites fared slightly better than Hispanics. Males and females had comparable risk of survival. When excluding Philadelphia and Correctional Facilities, those who lived in AACO had the poorest survival especially those who were residents of Northeast and North central parts of the state including AIDSNET Coalition. The likelihood of better survival increased with successive time intervals of diagnosis, and was 12.7 times better for 1997-2002 cohorts compared to 1984-1986 cohorts.



Figure 3 Change Over Time in Median Survival after Diagnosis with AIDS in PA.

Figure 4 Proportions of Diagnoses Cases Pressumed Alive After 48 Months for Each Successive AIDS Diagnosis Cohort in Each Coalition Region: Life-Table Analyses



d. Changes in Risk Groups:

Approximately 1/3 of prevalent (presumed alive) HIV cases in recent years (2003 onwards) were heterosexuals with HIV transmission that was directly or indirectly due to injecting drug use or IDU (i.e. including heterosexual contact with IDU). In addition, over 55% of prevalent HIV cases in recent years (2003 onwards) were among heterosexuals whose probable modes of acquiring HIV include both IDU (26%) and heterosexual contact (30%). About 30% of recent prevalent cases were among men who have sex with men (MSM), and almost 1/3 of recent prevalent cases were MSM and MSM-IDU, collectively.



- Race/Ethnicity
- The prevalence of HIV as of December 31, 2007 was greatest among Hispanics at 598 persons living with HIV per 100,000 population and was 7 times higher than whites with 87 per 100,000 population; followed by Blacks, 430 per 100,000 population (5 times higher than whites); Asians/Pacific Islanders

at 34 persons living with HIV per 100,000 population; and all others (including Native Americans and 'multirace') were 38 per 100,000 population.

 Collectively, blacks and Hispanics account for about 15% of the general population in PA, however, they account for 42% of all newly diagnosed AIDS cases in 2007.



Figure 6



Figure 7



Figure 8

 The prevalence of HIV in 2007 was greater among the 20-44 years age group with 188 persons per 100,000 population living with HIV; those older than 44 years had the next highest rate at 170 persons per 100,000 population (52% of the total number of prevalent cases), followed by the rate for the age group 13-19 years which was 11 times greater than those who were under 13 years old



Figure 9 Distribution of HIV/AIDS Cases by Age Group and Year of Diagnosis (excluding Philadelphia)

Figure 10



Pennsylvania HIV/AIDS Cases by Age and Year of Diagnosis (excluding Philadelphia)



Disproportionate Impact of HIV/AIDS by Sex in Pennsylvania (excluding Philadelphia)



• The prevalence of HIV in 2007 was greater among men with 202 persons living with HIV per 100,000 population, over 2.5 times the rate for women at 73 per 100,000 population.





Figure 13



* Retrospective reporting from 2000-2002

Figure 14

Distribution of HIV/AIDS by Probable Mode of Transmission in Pennsylvania (excluding Philadelphia)



- The distribution of prevalent HIV and AIDS was greatest in AIDS Activities Coordinating Offices 0 (AACO) region (5-county southeastern area including Philadelphia County) with 486 cases per 100.000.
- The prevalence of HIV in the AIDSNET area (6-county area around Lehigh Valley in eastern PA) was 0 the next highest with 43% of AACO, followed by South Central with 36%. The rate per 100,000 for North Central and Southwest was 32% and 28% of AACO respectively; and greater than the Northwest (21%) was slightly greater than Northeast with 23% of AACO.



Figure 15

Distribution of HIV/AIDS Cases by Mode of Transmission and Year of Diagnosis



* Retrospective reporting from 2000-2002

Figure 17

Disproportionate Impact of HIV/AIDS by Geographic/Coalition Area in Pennsylvania



Coalition Area

Distribution of HIV/AIDS Cases by Coalition and Year of Diagnosis (excluding Philadelphia) 3,000 2.500 1996/7 2000 HIV HAART reporting (retro.)* 2,000 Number of Cases 1993 case Def changed 1.500 1,000 500 0 1983 1981 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 Year of Diagnosis HIV (non-AIDS) NORTH CENTRAL HIV (non-AIDS) SOUTH CENTRAL HIV (non-AIDS) NORTH EAST HIV (non-AIDS) NORTH WEST HIV (non-AIDS) SOUTH WEST HIV (non-AIDS) AIDSNET AIDS cases NORTH EAST AIDS cases SOUTH WEST HIV (non-AIDS) AACO AIDS cases AIDSNET AIDS cases NORTH CENTRAL AIDS cases NORTH WEST AIDS cases SOUTH CENTRAL AIDS cases AACO HIV (including AIDS) AIDS cases * Retrospective reporting from 2000-2002

Figure 18



AIDS cases AACO

Figure 19

 HIV (non-AIDS) AIDSNET
 AIDS cases NORTH EAST
 HIV (non-AIDS) NORTH WEST
 AIDS cases SOUTH WEST
 UNA (case ADD) AADD HIV (non-AIDS) AACO

* Retrospective reporting from 2000-2002

B. Scope of the Integrated Epidemiologic Profile

The Integrated Epidemiologic Profile of HIV/AIDS in Pennsylvania was developed in accordance with the CDC & HRSA-sponsored Integrated Guidelines for Developing Epidemiologic Profiles, and has thus been expanded to meet the needs of both prevention and care planning. New analyses and data sources were included to provide a comprehensive and multi-perspective profile.

1. Scope and Overall Aims and Objectives of the Integrated Epidemiologic Profile

Although priority population/behavioral risk groups have already been identified and continue to be refined, the general overview and understanding of the epidemic as described by these data remains an integral part of the planning process. Given the dynamic nature of the epidemic, ongoing examination of the data will enable the PADOH to review priorities as needed if new information comes to light or new trends emerge. To that end, this data package is divided into population and behavior-based risk groups that broadly encompass the target groups for prevention and care planning.

Consistent with the CDC and HRSA-sponsored guidelines, the three (3) consolidated core Epidemiologic objectives of the Integrated Epidemiologic Profile are to:

- a. Describe the sociodemographic context of the HIV/AIDS epidemic in PA;
- b. Describe the scope of the HIV/AIDS epidemic in Pennsylvania among various demographic and transmission/risk groups; and
- c. Describe the indicators of risk for HIV infection in Pennsylvania.

2. Background and Significance of the Integrated Epidemiologic Profile

The Integrated Epidemiologic Profile of HIV/AIDS in Pennsylvania continues to serve as the epidemiologic resource for PA's plans for HIV/AIDS prevention and care activities [i.e. with the prevention-oriented elements aimed at the rest of the state, excluding the county/city of Philadelphia, which is funded through a separate direct CDC-funding mechanism for HIV prevention services].

The Epidemiologic Profiles that were redeveloped and issued previously consisted mostly of data describing changes over time in the HIV/AIDS epidemic in Pennsylvania. As previously described, the primary objectives of the previous updates were to determine and describe:

- a. Changes over time in the likelihood of death among cases diagnosed with AIDS and to highlight the resulting changes in survival time after diagnosis with HIV/AIDS in Pennsylvania;
- b. Changes over time in estimated prevalence of HIV in the general population, the geographic distribution of estimated HIV prevalence in Pennsylvania;
- c. The geographic distribution of AIDS prevalence in Pennsylvania;
- d. The geographic distribution of recent changes in AIDS incidence in Pennsylvania as a basis for geographic prioritization of 'highly impacted' counties;
- e. Changes over time in probable modes of transmission to highlight the predominant pattern of the epidemic in the heterosexual community;
- f. The disproportionate impact of the HIV epidemic among minority populations groups, especially Blacks/African-Americans and Hispanics/Latinos.

In this report we have retained the critical elements above mentioned and we have included updated data and a wider variety of analyses, in an effort to address the three newly consolidated core Epidemiologic objectives of the Integrated Epidemiologic Profile mentioned above.

In the absence of data on newly diagnosed *recently infected* HIV cases, we are using additional sources of information (incl. HIV reporting data) to better describe and infer the likelihood of new HIV infections in various geographic areas and their affected population-transmission groups and

at the same time describe the likelihood of growth in the population that is living with HIV/AIDS in Pennsylvania.

The inference that is possible from these data will enable HIV/AIDS prevention and care planners to better determine which population-transmission groups and geographic areas should be prioritized for resources for preventive and care services.

3. Data Sources and Methods: Key Epidemiologic Resources Supporting the Integrated HIV/AIDS Epidemiologic Profile

The epidemiologic analyses presented in this report are based largely on data from HIV diagnoses trends and prevalence, and AIDS incidence and prevalence. Various additional data sources on conditions and indicators such as STDs, HIV co-morbidity with various related conditions, HIV prevention care service monitoring, unmet needs and quality of HIV care, behavioral risk factor surveillance system, etc, and updates thereof are incorporated into the profile and its supplements to improve inference on recent trends of likelihood of new and prevalent infections. Surrogate marker data on STDs are also used as an indicator of the likelihood of recent unprotected sex, a risk factor of HIV transmission. While the risk of HIV transmission also depends on prevalence of HIV, susceptibility of the population, transmissibility of the organism, etc, STD data are especially useful to highlight the potential for HIV transmission among adolescents due to sparse HIV/AIDS data that do not permit inference on likely trends of HIV incidence.

a. Data Sources

Data were compiled from a variety of sources to provide the most complete picture of the current HIV/AIDS situation in Pennsylvania as possible. When interpreting the data, keep in mind that each of the data sources has strengths and limitations. A brief description of many of the available data sources and their limitations follows.

No single epidemiologic data type will provide a complete picture of HIV/AIDS in the community. Data from a variety of categories can provide a more complete picture of past and present infections and point out likely trends in future infections. Data on emerging or more marginalized populations is not widely available in most parts of PA: youth, incarcerated, homeless, Asian/Pacific Islanders, Native Americans, transgender, sex workers, mentally ill, etc.

i) Core HIV/AIDS Surveillance Data

The PA HIV/AIDS surveillance data is currently processed and maintained in the PA-NEDSS which is a Web-based application designed by the PADOH to facilitate public health disease reporting, surveillance and case management. A major functionality of PA-NEDSS is that it allows electronic transmission of disease reports directly from hospitals, laboratories, and physicians across the Commonwealth of PA to the PADOH. As disease and laboratory reports are submitted in PA-NEDSS, they are distributed on a real-time basis to their respective jurisdictions allowing public health staff to access the reports and begin proper epidemiological investigation and to determine proper classification of the report. Data conversion of Pennsylvania's HARS database to PA-NEDSS occurred in December 2005.

Since HIV/AIDS reporting was initiated through December 31, 2009, a total of 37,354 AIDS cases were diagnosed and reported in PA. In October 2002, Pennsylvania implemented name-based HIV reporting while Philadelphia County started in October 2005. The implementing regulations for HIV reporting included collection of HIV data retrospective to January 2000. The number of unduplicated cases of HIV infection diagnosed reported through December 2009 was 14,738. Among those 14,738 cases, a total of 14,486 (98.3%) were adults and the remaining 252 (1.75%) were pediatric cases. In addition, 656 incidents met the case definition for perinatal exposure to HIV during the same timeframe.

Data from positive anonymous and/or unconfirmed tests results from counseling and testing sites are not included in the final HIV surveillance statistics. Therefore, HIV infection data can provide only limited estimates of the number of persons known to be HIV infected. In addition, newly diagnosed cases may be reported to the health department at any point along the clinical spectrum of disease. Consequently, HIV infection data do not necessarily represent characteristics of persons who have been recently infected with HIV, but the first time their diagnosis has been reported to the PADOH. The characteristics of persons who are tested anonymously may differ from those who are tested confidentially by race/ethnicity, sex, age groups, etc.

ii) Enhanced Perinatal Surveillance

Perinatal HIV/AIDS surveillance is the ongoing and systematic collection of information on HIV-infected pregnant mothers and on perinatally exposed (i.e., exposed around the time of birth) and HIV-infected children. Expanded medical record abstractions are conducted for all HIV-exposed children and their mothers, and the children are followed up until their infection status is determined and/or death.

These data provides information on the prevention of perinatal transmission and describe access to prenatal care, HIV counseling and testing during pregnancy, and use of zidovudine (ZDV) or other antiretroviral drugs for pregnant mothers and neonates. Also, questions regarding treatment issues for women infected with HIV and their children are answered. Enhanced perinatal surveillance data provide perinatal-specific data that can be used to determine the extent to which testing is conducted and ZDV is prescribed in clinical practice, and to identify barriers to the implementation of Public Health Service guidelines. The perinatal data may underestimate the number of mother-infant pairs, because some pregnant women may not know they are infected or have not been tested for HIV. Perinatal data include only those women who have had a positive result from a confidential HIV test and their infants. Perinatal testing for HIV is not required in Pennsylvania.

iii) Behavioral Risk Factor Surveillance System (BRFSS)

The BRFSS is a state-based random-digit-dialed telephone survey of adults that monitors state level prevalence of the major behavioral risks associated with premature morbidity and mortality. Respondents to the BRFSS questionnaire are asked about their personal health behaviors and health experiences. A sexual behavior module was added in 1994, 1995, 1996, 1998, 2000, and in subsequent biennial surveys. In this module, adults (aged 18–49) were asked about number of sex partners, condom use, and treatment for STDs. Data from the BRFSS survey are population-based; thus, estimates about testing attitudes and practices can be generalized to the adult population of a state, not just persons at highest risk for HIV/AIDS. However, because BRFSS respondents are contacted by telephone, the data are not representative of households that do not have telephones.

iv) STD Surveillance: STD Case Reporting

The PADOH conducts statewide surveillance to determine the number of reported cases of STDs and monitor trends. Other services include partner counseling and, to help reduce the spread of STDs, referral services for examination and treatment. In PA, chancroid, chlamydia, gonorrhea, lymphogranuloma venereum, and syphilis are reportable STDs. STD surveillance data (e.g., rates of rectal gonorrhea) can serve as a surrogate marker for unsafe sexual practices and demonstrate the prevalence of changes in a specific behavior. STD data are widely available at the state and local level. Because of higher likelihood of symptomatic infection and shorter incubation periods between

exposure and infection for conditions such as gonorrhea, such STDs can serve as a marker of recent unsafe sexual behavior. In addition, certain STDs (e.g., ulcerative STDs) can facilitate the transmission or acquisition of HIV infection. Finally, changes in trends of STDs may indicate changes in community sexual norms, such as unprotected sex. Some STDs are reportable, but state requirements for reporting differ. The reporting of STDs from private-sector providers may be less complete. Although STD risk behaviors result from unsafe sexual behavior, they do not necessarily correlate with HIV risk.

v) HIV Counseling and Testing Data: Counseling and Testing System (CTS)

The PADOH conducts HIV CTS services at more than 150 sites across the state. These sites include STD, family planning, prenatal and tuberculosis (TB) clinics, drug treatment centers, CBOs, parish health units, community health centers, and mobile test sites.

The CTS collects information on counseling and testing services and the characteristics of clients receiving the services, such as demographics, risk information, and testing information (testing history, test result). The CTS provides standardized data on clients who are tested for HIV, which may offer insights into HIV infection rates in an area's high-risk population. The CTS collects information only from persons who seek counseling and testing services or agree to be tested after consultation at one of the publicly funded sites. Therefore, estimation of HIV statewide seroprevalence is not possible with CTS data because the clients self-select for testing and it may not be possible to deduplicate the data effectively.

vi) Substance Abuse Data: Treatment Episode Data Set (TEDS)

TEDS is a national data set maintained by the Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA), which accrues more than 1.5 million records of treatment admissions for substance abuse annually. TEDS comprises data routinely collected by states for the monitoring of their individual substance abuse treatment programs. TEDS collects information on client demographics, information about the number of prior treatments, usual route of administration for each problem substance, frequency of use, age at first use, and services provided. Most facilities that report TEDS data receive state funding for the provision of substance abuse treatment. Although TEDS does not represent the total demand for substance abuse treatment, it does include a significant proportion of all admissions to substance abuse treatment. The data also include admissions that constitute a burden on public funds. TEDS is based upon records of admissions and does not represent individuals. Thus, a person admitted to treatment twice within the same calendar year would be counted as two (2) admissions.

vii) Vital Statistics Data: Birth and Death Data

The National Center for Health Statistics receives information on births and deaths in the United States through a program of voluntary cooperation with state government agencies (i.e., state departments of health, state offices of vital statistics) called the Vital Statistics Cooperative Program. States use standard forms to collect birth and death data.

The birth certificate form includes demographic information on the newborn and the parents, insurance status, prenatal care, prenatal risk factors, maternal morbidity, mode of delivery, pregnancy history, and clinical characteristics of the newborn. Death certificates include demographics, underlying cause of death, and contributions of selected factors to the death (i.e., smoking, accident, or injury) of all deceased persons. Reporting is approximately 100% complete for births and deaths. Therefore, inferences can be made concerning the number of live births in a service area. The data can also be used to determine the effect of deaths related to HIV infection in a service area. The data on birth certificates that are obtained from patient medical records (i.e., smoking history, morbidity) may be incomplete. In addition, deaths resulting from, or whose underlying

cause was, HIV infection may be underreported on a death certificate. Clinical information related to HIV or AIDS may be missing. In Pennsylvania, as is true in other states, death records are not available as promptly as AIDS case reports are.

viii) Population Data: Population Census Data, U.S. Bureau of the Census (Census Bureau)

The Census Bureau collects and provides timely information about the people and economy of the United States. The Census Bureau's Web site (<u>http://www.census.gov</u>) includes data on demographic characteristics (e.g., age, race, Hispanic ethnicity, sex) of the population, family structure, educational attainment, income level, housing status, and the proportion of persons who live at or below the poverty level. Summaries of the most requested information for states and counties are provided, as well as analytical reports on population changes, age, race, family structure, and apportionment. State- and county-specific data are easily accessible, and links to other Web sites with census information are included.

ix) Pennsylvania State Data Center

This data center is administered by Penn State University under contract with the State of Pennsylvania. The Web site for the center (<u>http://pasdc.hbg.psu.edu</u>) includes current population estimates and projections; socioeconomic, income, and poverty status information; demographic profiles and rankings; and geographic units from which census data are obtained (state, county, cities, and metropolitan areas). County population trends are also provided. Links to local affiliates of the state census data center and to other web sites with census information are included as well.

x) Ryan White Part B CAREWare

The PADOH's CAREWare database collects data on persons served through PA Ryan White Title II funding. To be eligible for Ryan White Title II services, a person must be living with HIV/AIDS, be a resident of PA, and have an income that is equal to or less than 200% of the current year's federal poverty level. Information collected from service providers throughout the state includes basic demographic and risk information on each of the clients, eligibility verification data (current address, current income, HIV diagnosis), the type of services received, the date and quantity of services received, the cost of these services, and other pertinent information (history of substance abuse or mental health treatment, veteran status, current pregnancy status). CAREWare is an important tool for monitoring which Ryan White resources are being used, how often, and by whom. However, the data in PA CAREWare cannot be generalized to all HIV-infected persons living in the state, because the data collected are only for persons who (1) know their HIV serostatus, (2) are not eligible for health coverage through private insurance or PA Medicaid, (3) are currently seeking care and treatment services from providers funded through Ryan White Title II, and (4) are financially eligible to receive services.

xi) Internet as a Source of Data

The Internet was used as much as possible to obtain needed data. All the sociodemographic data, vital statistics, substance abuse data, and YRBSS information were downloaded from Web sites. Several of the Web sources compile their data from other organizations and agencies, such as the Kaiser Family Foundation (for insurance information) and the Health Resources and Services Administration (HRSA) (for the CARE Act Data Report [CADR]).

b. Strengths and Limitations of Profile Data

When making planning decisions, it is important to consider the overall strengths and limitations of the information provided in this report. Although the profile is comprehensive and draws from a number of data sources, there are many things that the profile cannot explain.

Although the HIV/AIDS surveillance system in Pennsylvania is extensive, it is based on data on people who have been tested confidentially for HIV. Consequently, HIV infections may be under-detected and under-reported because reporting may be delayed. Also, persons are tested at differing times after they become infected, and many persons are not tested until HIV infection has progressed to AIDS. Thus, it is important to remember that the data in this report only represents data from the time the first reported HIV test is received by the state, hence do not necessarily represent the characteristics of persons who have been recently infected with HIV, nor do they provide a true measure of HIV incidence.

Analyses of many different data sets are presented to provide robust representations of particular subpopulations. However, demographic and geographic subpopulations are disproportionately sensitive to differences and changes in access to health care, HIV testing patterns, and specific prevention programs and services. All of these issues must be carefully considered when interpreting HIV data. Therefore, it is important to make comparisons across data sources to get the most complete picture.

Although a limited number of analyses were available from the Bureau of the Census at the time this profile was prepared, that agency expanded its race/ethnicity reporting categories in 2000. In this profile, however, the new categories are not used in analyses of HIV/AIDS data. The information in this report is for statewide planning, but some regional data are presented. Detailed regional and county information on AIDS incidence and prevalence is also provided within the "mini-profiles of regional HIV/AIDS data in Appendix section

c. Analysis and Methods:

Throughout this report, the following statistical methods were used to measure the effect of the epidemic upon specific populations, adjust for delays in reporting, and account for cases with missing risk information:

- i) HIV prevalence estimates were calculated using a method recommended by the CDC and the details and limitations of these estimates are outlined in Appendix D1.
- ii) Case rates were calculated for the given period per 100,000 population. For these rates, denominators were derived from the 2000 census (see methods for discussion). The numerator is the number of reported cases that were diagnosed during the given period.
- iii) When HIV/AIDS data are presented as trends, only when stated the data have been adjusted to account for reporting delay for recently diagnosed cases. Reporting delay refers to the time between the diagnosis of a case and receipt of the report by the health department. Cases recently diagnosed may not yet have been reported; therefore, for recent periods, the number of cases diagnosed, but not yet reported, is estimated and presented as expected cases.
- iv) Regarding "missing risk information," the cases that have been diagnosed recently are more likely to be reported without a specified risk (exposure). To provide data on their classification of risk over time, the cases with missing risk information must be assigned to one of the risk categories. Cases with missing risk information are distributed to a risk category based on regional sex- and race-specific risk probabilities provided by the CDC. Consequently, data adjusted for risk redistribution represent the expected number of cases in each risk category. For example, the adjusted number of cases attributed to injection drug use in 2007 would be the sum of (1) the number of cases diagnosed in 2007 in which injection drug use was the risk factor and (2) the number of cases diagnosed in 2007 without risk information, but in which injection drug use was assigned as the likely risk factor.
- v) The Bureau of the Census, in compliance with the Office of Management and Budget Directive 15 (OMB 15), expanded race/ethnicity reporting in 2000. The expanded questionnaire allowed respondents to select 1 or more races to indicate their racial identity. However, for comparisons with HIV/AIDS data for which information on only 1

race and Hispanic ethnicity is collected, the race/ethnicity data obtained from the Bureau of the Census were combined into 5 categories: white, not Hispanic; black, not Hispanic; Hispanic; American Indian; and Asian. For analyses involving small numbers of cases in some racial/ethnic groups, those cases have been grouped in a category called other.

C. Background and Socio-demographic Context.

1. 2007 Pennsylvania Health Profile - Selected Indicators

- a. Across the state, racial/ethnic minorities account for less than 18% of the general population, more specifically blacks and Hispanics account for about 15% of the general population in PA.
- b. In 'The AIDS Activity Coordinating Office' service area (AACO consists of the 5 southeastern counties which includes: Philadelphia Co., Bucks Co., Montgomery Co., Chester Co., and Delaware Co), blacks and Hispanics account for 27% of the general population;
- c. In all other AIDS service coalition areas, blacks and Hispanics account for 3-15% of the general population in PA;
- d. Additional 2009 Pennsylvania Health Profile Selected Indicators [Source: Pennsylvania Health Profile 2009, Bureau of Health Statistics and Research, PA Department of Health] All data are from Pennsylvania Health Profile 2009 except where noted in asterisks (*).

Demographic Indicator	Value
% Population Change 2000 to 2007	1.2
Median Age of the Population (2007)	38.9
% Population Aged 65 and Over (2007)	15.2
% Population Urban (2007)*	72.0
% Population with Income Below Poverty Level (2007)	11.6
Per Capita Personal Income (2007)	\$38,793
% Labor Force Unemployed (Annual Average 2008)	5.4
% Population Eligible for Medical Assistance (2008)	16.2
*Data from Center for Rural Pennsylvania	

*Data from Center for Rural Pennsylvania

e. Estimated Population by Age and Sex (2008)

Age	Total	Male	Female
All Ages	12,448,279	6,050,483	6,397,796
Under 5	Under 5 737,202		359,998
5-14	1,553,656	794,085	759,571
15-24	1,809,067	914,707	894,360
25-34	1,483,947	754,035	729,912
35-44	1,677,102	833,288	843,814
45-54	1,801,465	885,412	916,053
55-64	1,475,253	709,049	766,204
65-74	973,296	437,279	536,017
75+	937,291	345,424	591,867

*Data from epiQMS, accessed 7/13/2010: http://app2.health.state.pa.us/epiqms/Asp/ChooseDataset.asp

f. Estimated Population by Racial Origin and Hispanic Ethnicity (2008)

Race/Ethnicity	N	%
White	10,665,941*	83.01
Black	1,336,823*	10.40
Other Races**	290,435*	2.26
Hispanic (any race)	556,132*	4.33
Total Population	12,849,331	100.00

**includes Native American, Pacific Islanders, Multirace *Data from epiQMS, accessed 7/13/2010: http://app2.health.state.pa.us/epiqms/Asp/ChooseDataset.asp





g. Natality and Reported Pregnancies* (2007 Residents)

Characteristic		Rate per 1000 population
Crude Birth Rate		12.1
Average Annual General	Fertility Rate (2005-2007)	59.3

	All	White	Black	Asian/ Pacific	Hispanic (any
	Races/Ethn.			Isl.	race)
% Low Birth Weight	8.4	7.1	13.9	8.5	8.9
% Receiving No Prenatal	20.4	16.4	35.1	23.8	35.0
Care (in First Trimester)					
% Births to Mothers	3.0	1.8	7.5	0.5	7.0
Under 18					

		Outcome								
Age of	Reported	Live	Fetal	Induced						
Woman	Pregnancies	Births	Deaths	Abortions						
All Ages	187,112	150,322	1,573	35,217						
Under 15	395	186	3	206						
15-19	20,090	13,820	175	6,095						
20-29	97,305	76,534	719	20,050						
30 and Over	69,153	59,658	644	8,851						

Age of Woman	Birth Rate	Reported Pregnancy Rate				
	(per 1,000)	(per 1,000)				
15-44	60.6**	75.4				
Under 15	0.5	1.0				
15-17	16.1	23.9				
18-19	49.4	71.1				
20-29	96.7	122.9				
30-49	35.1	40.7				

*Live births, fetal deaths of 16+ weeks gestation, and induced abortions performed in-state. **General fertility rate (age 15-44).

All rates per 1,000 for 2007

h. Morbidity (Residents):

Tor Selected Notifiable Diseases (2003-2007)										
Total	Rate									
4056	10.9									
726	1.94									
5	ND									
938	2.5									
3,906	10.5									
119,217	319.6									
2,467	6.6									
35,394	94.9									
248	0.7									
907	1.5									
11,523	30.9									
1,350	N/A									
5,319	14.3									
605	1.6									
	Total 4056 726 5 938 3,906 119,217 2,467 35,394 248 907 11,523 1,350 5,319 605									

Reported Incidence and Average Annual Rate (per 100,000) for Selected Notifiable Diseases (2005-2007)

*Acute only; ND or N/A indicates data not available.

D. Demographic Characteristics of HIV/AIDS:

1. Race/Ethnicity

a. The prevalence of HIV as of December 31, 2007 was greatest among Hispanics at 598 persons living with HIV per 100,000 population and was 7 times higher than whites with 87 per 100,000 population; followed by blacks, 430 per 100,000 population (5 times

higher than whites); Asians/Pacific Islanders at 34 persons living with HIV per 100,000 population; and all others (including Native Americans and 'multirace') were 38 per 100,000 population.

- b. Although Hispanics account for only 4.4% of the general population in PA, yet they account for 24% of newly diagnosed AIDS cases in 2007;
- c. Blacks (non-Hispanic) account for 10.6% of the general population in PA, they accounted for 17% of newly diagnosed AIDS cases in 2007;
- d. Collectively, blacks and Hispanics account for 15% of the general population in PA, however, they account for 42% of all newly diagnosed AIDS cases in 2007;
- e. This distribution is consistent with the exponential increase in the proportion of racial/ethnic minorities over past successive years.
- f. Although the overall trend of new AIDS diagnoses has been steadily declining in the HAART era, the number of new cases was higher for whites, followed by blacks, Hispanics, Asian/Pacific Islanders and American Indian/Alaska Native;
- i. Note that these crude numbers do not take into account the background population;
- g. In 2007, the statewide (excluding Philadelphia) AIDS case rate was 5.2 cases per 100,000 population;
- h. The rates were disproportionately much higher for Hispanics with more than 7 times the rate for whites, followed by blacks with 5 times the rate for whites;
- i. Hispanic males had the highest rates followed by black males, Hispanic females, black females, white males, Asian/Pacific Islander males, Asian/Pacific Islander female, and white females.
- j. Although blacks (non-Hispanic) account for just over 10% of the general population in PA, they accounted for 32% of newly diagnosed AIDS cases in 2007;
- k. Hispanics account for only 4.4% of the general population in PA, yet they account for 15% of newly diagnosed AIDS cases in 2007;
- I. Collectively, blacks and Hispanics account for 15% of the general population in PA, however, they account for 48% of all newly diagnosed AIDS cases in 2007;
- m. This distribution is consistent with the exponential increase in the proportion of racial /ethnic minorities over past successive years.
- n. Among white AIDS cases, male-to-male sex (MSM) has the highest proportion of probable modes of transmission, followed by heterosexual contact and IDU;
- o. Among black AIDS cases, heterosexuals have the highest proportion of probable modes of transmission, followed by MSM and IDU;
- p. Among Hispanic AIDS cases, heterosexual contact has the highest proportion of probable modes of transmission, followed by IDU and MSM;
- q. Among Asian/Pacific Islander cases, heterosexuals appear to have the highest proportion of probable mode of transmission, followed by MSM and IDU; however, the number of cases is very small and therefore not likely to be a reliable indicator of distribution among this population.
- r. The overall number of persons living with AIDS (prevalent cases) has been steadily rising; this trend is most likely attributable to HAART and improvement in AIDS survival;
- s. Among populations with at least 1,000 cases, the 5-year net increase (2003 through 2007) was greatest among blacks at 36% closely by Hispanics with 35% and Whites at 34%;
- t. The overall number of AIDS deaths has been declining through 2007, however whites accounted for almost 40% of AIDS deaths each year followed by blacks with greater than 30% and Hispanics with 11%;
- u. The pattern is different from the previous profile where racial/ ethnic minority groups had the greatest number of deaths;
- v. In 2006, the statewide (excluding Philadelphia) AIDS death rate was 0.7 deaths per 100,000 population;
- w. The rates were disproportionately much higher for Hispanics with 9.5 times the rate for whites, followed by blacks with almost 6 times the rate for whites.
- x. Hispanics males had the highest death rates followed by black males, Hispanic females, black females, white males, and white females.



Figure 21 Disproportate Impact of HIV/AIDS by Race/Ethnicity in Pennsylvania

Race/Ethnicity

Table No. 1 Incidence of AIDS cases in PA, by year of diagnosis and race/ethnicity											
	2003 2004		2005	2006	2007	Cumulative cases through 2007					
Race/ethnicity No. No. No. No. No. No.											
White, not Hispanic	282	287	311	451	342	10,341					
Black, not Hispanic	219	203	161	245	208	5,414					
Hispanic	73	73	58	158	96	2,225					
Asian/Pacific Islander	2	1	2	6	6	62					
American Indian/Alaska Native	2	0	0	0	0	14					
Unknown/Multiple Race	0	0	1	0	0	1					
Total	578	564	533	854	652	17,784					
Notes. These are actual numbers of AIDS cases that have been reported. No adjustment has been made for reporting delays.											

 Although the overall trend of new AIDS diagnoses has been steadily declining in the HAART era, the number of new cases was higher for whites, followed by blacks, Hispanics, Asian/Pacific Islanders and American Indian/Alaska Native;

o Note that these crude numbers do not take into account the background population;

Table No. 2												
Incidence of AIDS: cases and rates (per 100,000 population) in PA, by sex and race/ethnicity, 2007												
	Males Females Total											
Race/ethnicity	No.	%	Rate	No.	%	Rate	No.	%	Rate			
White, not Hispanic	269	59	5.4	73	37	1.4	342	51	3.3			
Black, not Hispanic	129	28	22.8	79	40	12.4	208	33	17.3			
Hispanic	54	12	26.8	42	21	21.8	96	15	24.4			
Asian/Pacific Islander	4	1	3.7	2	1	1.8	6	1	2.7			
American Indian/Alaska Native	0	0	а	0	0	а	0	0	а			
Unknown/Multiple Race	0	0	а	1	0	а	0	0	а			
Total	456	100	7.6	196	100	3.0	652	100	5.2			
Notes. These are actual numbers of AIDS cases that have been reported. No adjustment has been made for reporting delays. Total includes 0 persons of unknown sex. Percentages may not total to 100 due to rounding.												

In 2007, the statewide (excluding Philadelphia) AIDS case rate was 5.2 cases per 100,000 population;

- The rates were disproportionately much higher for Hispanics with more than 7 times the rate for whites, followed by blacks with 5 times the rate for whites;
- Hispanic males had the highest rates followed by black males, Hispanic females, black females, white males, Asian/Pacific Islander males, Asian/Pacific Islander female, and white females
- Although blacks (non-Hispanic) account for just over 10% of the general population in PA, they accounted for 33% of newly diagnosed AIDS cases in 2007;
- Hispanics account for only 4.4% of the general population in PA, yet they account for 15% of newly diagnosed AIDS cases in 2007;
- Collectively, blacks and Hispanics account for ~15% of the general population in PA, however, they account for 48% of all newly diagnosed AIDS cases in 2007;
- This distribution is consistent with the exponential increase in the proportion of racial /ethnic minorities over past successive years.

Table No. 3 Incidence of AIDS cases in PA, by race/ethnicity and exposure category, 2007														
	Wh ne Hisp	White, Black, Asia not not Pacif Hispanic Hispanic Islan		an/ ific nder	American Indian/ Alaska r Native		Unknown/ Multiple Race		Total					
Exposure category	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male-to- male sex	146	43	51	25	14	15	1	17	0	0	0	0	212	33
Injection drug use (IDU)	34	10	29	14	29	30	1	17	0	0	0	0	93	14
Ir	Table No. 3 Incidence of AIDS cases in PA, by race/ethnicity and exposure category, 2007													
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	Wh ne Hisp	nite, ot panic	Bla no Hisp	ick, ot anic	Hispanic		Asian/ Pacific Islander		American Indian/ Alaska Native		Unknown/ Multiple Race		Total	
Exposure category	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male-to- male sex and IDU	9	3	5	2	0	0	0	0	0	0	0	0	14	2
Heterosexu al contact	109	32	83	83	42	44	3	50	0	0	0	0	237	36
Mother with/at risk for HIV	3	1	2	1	0	0	0	0	0	0	0	0	5	1
Other/ unknown	41	12	38	18	11	11	1	17	0	0	0	0	91	14
Total	342	100	208	100	96	100	6	100	0	0	0	0	652	100
Notes. These an "Other/unknown may not total to	re actua n" risk c 100 du	al numbe ategory e to rou	ers of All includes nding.	DS case hemopl	s that ha hilia, blo	ave beer od trans	n reporte fusion, p	d. No a erinatal,	djustmer and risk	nt has be not rep	een mad orted or	e for repor not identifi	ting delays. ed. Percen	tages

- Among white AIDS cases, male-to-male sex (MSM) has the highest proportion of probable modes of transmission, followed by heterosexual contact and IDU;
- Among black AIDS cases, heterosexuals have the highest proportion of probable modes of transmission, followed by MSM and IDU;
- Among Hispanic AIDS cases, heterosexual contact has the highest proportion of probable modes of transmission, followed by IDU and MSM;
- Among Asian/Pacific Islander cases, heterosexuals appear to have the highest proportion of probable mode of transmission, followed by MSM and IDU; however, the number of cases is very small and therefore not likely to be a reliable indicator of distribution among this population.

Table No. 4 Prevalence of AIDS: Number of persons living with AIDS in PA, by year and race/ethnicity												
2003 2004 2005 2006 2007												
Race/ethnicity No. No. No. No. No.												
White, not Hispanic	3,835	4,018	4,228	4,633	5,258							
Black, not Hispanic	2,189	2,284	2,372	2,589	2,991							
Hispanic	1,057	1,084	1,121	1,264	1,435							
Asian/Pacific Islander 27 27 29 29 4												
American Indian/Alaska Native	6	5	5	5	5							

Table No. 4 Prevalence of AIDS: Number of persons living with AIDS in PA, by year and race/ethnicity											
2003 2004 2005 2006 2007											
Race/ethnicity No. No. No. No. No.											
Unknown/Multiple Race	0	0	1	1	1						
Total	7,114	7,418	7,756	8,521	9,731						
Notes. These are actual numbers of AIDS cases that have been reported. No adjustment has been made for reporting delays.											

• The overall number of persons living with AIDS (prevalent cases) has been steadily rising; this trend is most likely attributable to HAART and improvement in AIDS survival;

Among populations with at least 1,000 cases, the 5-year net increase (2003 through 2007) was greatest among blacks at 36% closely by Hispanics with 35% and Whites at 34%;

Table No. 5											
AIDS Mortality: Number of deaths among persons with AIDS in PA, by year of death and race/ethnicity											
	2003	2004	2005	2006	2007	Cumulative deaths through 2007					
Race/ethnicity No. No. No. No. No. No.											
White, not Hispanic	110	104	101	46	33	5,399					
Black, not Hispanic	91	108	73	28	31	2,375					
Hispanic	45	46	21	15	11	876					
Asian/Pacific Islander	1	1	0	0	0	27					
American Indian/Alaska Native	0	1	0	0	0	9					
Unknown/Multiple Race	0	0	0	0	0	0					
Total	Total 247 260 195 89 75 8,686										
Notes. These are actual numbers of dea reporting delays.	ths that I	nave bee	en reporte	ed. No a	djustme	nt has been made for					

 The overall number of AIDS deaths has been declining in all racial/ethnic groups through 2007, with the greatest number of deaths observed among whites, followed closely by blacks, then Hispanics;

Table No. 6 AIDS Mortality: Numbers and rates (per 100,000 population) of deaths among persons with AIDS in PA, by sex and race/ethnicity, 2006 (as of December 31, 2007)												
	Males Females Total											
Race/ethnicity	No. % Rate No. % Rate No. %											
White, not Hispanic	36	53	0.7	10	48	0.2	46	52	0.4			
Black, not Hispanic	21	31	3.7	7	33	1.1	28	31	2.3			
Hispanic	11	16	5.5	4	19	2.1	15	17	3.8			
Asian/Pacific Islander	0	0	а	0	0.0	а	0	0	а			
American Indian/Alaska Native	0	0	а	0	0.0	а	0	0	а			
Unknown/Multiple Race	0	0	а	0	0.0	а	0	0	а			
Total	68	100	1.1	21	100	0.3	89	100	0.7			
Notes. These are actual numbers of dea reporting delays. Total includes 0 persor rounding.	ths that ns of un	t have l known	been rep sex. Per	orted. centag	No adji es may	ustment not tota	has bee I to 100	en mad) due to	e for			

- In 2006, the statewide (excluding Philadelphia) AIDS death rate was 0.7 deaths per 100,000 population;
- The rates were disproportionately much higher for Hispanics with 9.5 times the rate for whites, followed by blacks with almost 6 times the rate for whites.
- Hispanics males had the highest death rates followed by black males, Hispanic females, black females, white males, and white females.

2. Age Groups

- a. The prevalence of HIV in 2007 was greatest among the 20-44 years age group with 188 persons per 100,000 population living with HIV; those older than 44 years had the next highest rate at 170 persons per 100,000 population (52% of the total number of prevalent cases), followed by the rate for the age group 13-19 years which was 11 times greater than those who were under 13 years old;
- b. Although the overall trend of new AIDS diagnoses has been steadily declining in the HAART era, the number of new cases remained highest for the 35-44 years age group, followed by the 45-54, 25-34, 55-64 years age groups (2003-2007). Note that these crude numbers do not take into account the background population.
- c. In 2007, the proportion of new AIDS cases remained highest for the 35-44 years age group among both sexes, followed by the 45-54, years age group, 25-34 and 55-64 age group among both sexes.
- d. The overall number of persons living with AIDS (prevalent cases) has been rising steadily; this trend is most likely attributable to HAART and improvement in AIDS survival;
- e. This pattern was observed among all age groups greater than 15 years of age.
- f. The overall number of AIDS deaths had been declining through 2007;
- g. The pattern is somewhat similar across all age groups except for 2004 which indicates an increase in 25-34, 45-54 and 55-64 years age group.
- h. Across Pennsylvania, Gonorrhea incidence was greatest among young adult females in age group 20-24, followed by female adolescents in age group 13-19 (with more than twice the rate of their male counterparts), young adult males ages 20-24, then males in

the age group 25-34, female in age group 25-34, male adolescents ages 13-19, males in the age group 35-44, 45-54, and females 35-44 in that order.

- i. As in the statewide pattern including Philadelphia, the statewide pattern excluding Philadelphia has Gonorrhea incidence at disproportionately higher levels for adolescent and young adult females compared to their male counterparts;
- j. This pattern gets reversed from the age of 35 and older both groups such that males have higher rates than females in older age groups;
- k. The greater likelihood of Gonorrhea infection among adolescent and young adult females may be indicative of earlier sexual debut among younger females having unprotected sex with older males.
- I. In Philadelphia, the likelihood of Gonorrhea infection was also much greater among female adolescents in age group 13-19 (with twice the rate of their male counterparts);
- m. Gonorrhea incidence was also much higher for all age groups in Philadelphia compared to all other parts of the state, which is indicative of greater likelihood of recent unprotected sex among Philadelphians than among populations in other counties in the state.
- n. In general a similar distribution is observed in Allegheny Co. (Pittsburgh) compared to other parts of the state;
- However, the relative likelihood of Gonorrhea infection was greater among female adolescents and young adults in the age group 20-24 and 13-19 than among their male counterparts;
- As in the Philadelphia and Allegheny County distribution pattern, Gonorrhea incidence is disproportionately at higher levels for adolescent and young adult females for the age group 13-19 compared to their male counterparts;
- q. This pattern gets reversed from the age of 20 and older both groups such that males have higher rates than females in older age groups;
- r. Among Pennsylvanian residents outside Philadelphia, the incidence of Gonorrhea has previously shown a steady increase;
- S. Females older than 13 years consistently had greater likelihood of Gonorrhea infections than their male counterparts in each consecutive year; this higher rate is largely attributable to much higher STD rates among younger age group females 13-24.The incidence of Gonorrhea was consistently much higher among young adult females (20-24), followed by adolescent females (13-19) more than twice the rate of their male counterparts; and males 20-24 in each consecutive year compared to overall trends for all males and females >12 years
- u. The pattern of greater likelihood of gonorrhea is indicative of a higher likelihood of recent unprotected sex in these high risk age groups of young females;
- v. In communities with high prevalence of HIV and STD comorbidity, there is likely to be an increase in HIV and STD transmission.
- w. The observed decline in incidence of teenage pregnancy until 2005, may not be a good indicator of likelihood of recent risky unprotected sex and potential for HIV transmission among teenagers;
- x. Such a decline may be a function of non-barrier contraceptive methods which can reduce pregnancy rates without reducing the likelihood of unprotected sex and associated risks.



Disproportionate Impact of HIV/AIDS by Age Groups at AIDS Diagnosis in Pennsylvania

Age at Diagnosis of AIDS

	Table No. 7												
Incidence	Incidence of AIDS cases in PA, by year of diagnosis and age at diagnosis												
	2003	2004	2005	2006	2007	Cumulative cases through 2007							
Age (yrs)	No.	No.	No.	No.	No.	No.							
<13 2 0 0 0 0 194													
13-14 1 0 1 0 1 19													
15-24	15-24 18 32 27 34 32 629												
25-34	109	107	76	133	102	5,285							
35-44	234	212	232	311	239	7,135							
45-54	153	151	157	265	190	3,292							
55-64	48	47	37	90	64	936							
>=65	13	15	3	21	24	294							
Total	578	564	533	854	652	17,784							
Notes. These adjustment ha age. Percenta	are actua as been n ages may	al number nade for r not total	s of AIDS eporting c to 100 du	cases the lelays. To e to round	at have be tal include ling.	een reported. No es 0 persons of unknown							

age. Percentages may not total to 100 due to rounding.

Although the overall trend of new AIDS diagnoses has been steadily declining in the HAART 0 era, the number of new cases remained highest for the 35-44 years age group, followed by the 45-54, 25-34, 55-64 years age groups (2003-2007);

Table No. 8												
Incidence of AIDS cases in PA, by sex and age at diagnosis, 2007												
	Ма	les	Fem	ales	To	tal						
Age (yrs)	No. %		No.	%	No.	%						
<13	0	0	0	0	0	0						
13-14	1	0	0	0	1	0						
15-24	23	5	9	5	32	5						
25-34	65	14	37	19	102	16						
35-44	175	38	64	33	239	37						
45-54	132	29	58	30	190	29						
55-64	44	10	20	10	64	10						
>=65	16	4	8	4	24	4						
Total	456	100	196	100	652	100						
Notes. These are actual n reported. No adjustment l includes 0 persons of unku 100 due to rounding.	Notes. These are actual numbers of AIDS cases that have been reported. No adjustment has been made for reporting delays. Total includes 0 persons of unknown age or sex. Percentages may not total to 100 due to rounding											

• Note that these crude numbers do not take into account the background population;

 In 2007, the proportion of new AIDS cases remained highest for the 35-44 years age group among both sexes, followed by the 45-54, years age group, 25-34 and 55-64 age group among both sexes.

Table No. 9Prevalence of AIDS: Number of persons living with AIDS in PA, by year and current age											
	2003	2004	2005	2006	2007						
Current age (yrs)	No.	No.	No.	No.	No.						
<13	15	15	15	15	15						
13-14	12	11	11	11	14						
15-24	79	89	104	131	192						
25-34	308	375	434	544	765						
35-44	2,101	2,231	2,375	2,652	3,086						
45-54	3,029	3,114	3,223	3,471	3,823						
55-64	1,259	1,270	1,291	1,377	1,493						
>=65	311	313	303	320	343						
Total	7,114	7,418	7,756	8,521	9,731						

Table No. 9Prevalence of AIDS: Number of persons living with AIDS in PA, by year and current age										
2003 2004 2005 2006 2007										
Current age (yrs)	No.	No.	No.	No.	No.					
Notes. These are actual numbers of AIDS cases that have been reported. No adjustment has been made for reporting delays. Total includes 0 persons of unknown age.										

 The overall number of persons living with AIDS (prevalent cases) has been rising steadily; this trend is most likely attributable to HAART and improvement in AIDS survival;

• This pattern was observed among all age groups greater than 15 years of age.

Table No. 10 AIDS Mortality: Number of deaths among persons with AIDS in PA, by year of death and age at death											
	2003	2004	2005	2006	2007	Cumulative deaths through 2007					
Age (yrs)	No.	No.	No.	No.	No.	No.					
<13	0	0	0	0	0	1					
13-14	0	1	0	0	0	12					
15-24	1	0	1	0	0	75					
25-34	6	12	8	5	6	99					
35-44	60	52	49	26	24	1,179					
45-54	106	111	85	38	24	3,814					
55-64	49	65	33	12	12	2,402					
>=65	25	19	19	8	9	1,104					
Total	247	260	195	89	75	8,868					
Notes. These are	e actual nur	nbers of de	eaths that h	ave been r	eported. N	lo adjustment has been made for					

Notes. These are actual numbers of deaths that have been reported. No adjustment has been made fo reporting delays. Total includes 0 persons of unknown age.

• The overall number of AIDS deaths had been declining through 2007;

• The pattern is somewhat similar across all age groups except for 2004 which indicates an increase in 25-34, 45-54 and 55-64 years age group.

3. Sex

- a. The prevalence of HIV in 2007 was greater among men with 202 persons living with HIV per 100,000 population, over 2.5 times the rate for women at 73 per 100,000 population.
- b. The incidence of AIDS has been steadily declining mostly since HAART combination therapy began in 1996/7 until recently (see years 2006 and 2007);
- c. The proportion of female AIDS cases has been steadily increasing and reached over 30% in 2006.

- d. In 2007, the proportion of new AIDS cases was greatest for heterosexuals with heterosexual contact as the probable risk/mode of transmission, followed by MSM, then IDU. Among males, MSM was highest followed by heterosexual contact and then IDU. Among females, heterosexual contact predominates followed by IDU.
- e. In 2007, among both sexes, the proportion of new AIDS cases remained highest in the 35-44 year age group at 37% of all cases. This was followed by the 45-54 year age group among males, the 45-54 year age group among females, the 55-64 year age group for males, and 25-34, 55-64 for females.
- f. In 2007, the statewide AIDS case rate was 5.2 cases per 100,000 population;
- g. The rates were disproportionately much higher for males with 2.5 times the rate for women.
- h. Hispanic males and females had the highest rates followed by black males and females, white males, Asian/ Pacific Islander males and females, then white females.
- i. Although males account for just fewer than 50% of the general population in PA, and rates for males have been declining over time, they still accounted for 70% of newly diagnosed AIDS cases for 2007;
- j. Previously, the proportion for women had been steadily climbing and more than doubled to reach 30% by 2002, this higher rate has been maintained through 2007.
- k. This distribution is consistent with the changes over time in the ratio of male to female AIDS cases;
- I. The overall number of persons living with AIDS (prevalent cases) has been rising steadily; this trend is most likely attributable to HAART and improvement in AIDS survival;
- m. This pattern was observed among both sexes.
- n. The overall number of AIDS deaths has been declining through 2007;
- o. This pattern fluctuated in 2004 for females where there was an increase and then appears to resume the declining trend for the subsequent years;
- p. In 2006, the statewide AIDS death rate was 3.2 deaths per 100,000 population;
- q. The rates were disproportionately much higher for Hispanics with 9.5 times the rate for whites, followed by blacks with 6 times the rate for whites, while the death rate for whites was less than 1%.
- r. Hispanic males had the highest death rates followed by black males, Hispanic females, black females, followed by white males and females.
- s. In 2007, comorbidity of new AIDS diagnoses with tuberculosis was less than 1%.



Table No. 11 Incidence of AIDS cases in PA, by year of diagnosis and sex											
20032004200520062007Cumulative cases through 2007											
Sex	ex No. No. No. No. No. No.										
Males	412	398	390	581	456	14,118					
Females	166	166	143	273	196	3,666					
Total	Total 578 564 533 854 652 17,784										
Notes. These a for reporting de	Notes. These are actual numbers of AIDS cases that have been reported. No adjustment has been made for reporting delays. Total includes 0 persons of unknown sex.										

 The incidence of AIDS has been steadily declining mostly since HAART combination therapy began in 1996/7 until recently (see years 2006 and 2007).

• The proportion of female AIDS cases has been steadily increasing and reached over 30% in 2006.

Table No. 12											
Incidence of AIDS cases in P	A, by s Ma	les	Fem	ales	Jory, 2007 Tot	al					
Exposure category	No.	%	No.	%	No.	%					
Male-to-male sex(MSM)	212	46	а	а	212	33					
Injection drug use (IDU)	56	12	37	19	93	14					
Male-to-male sex and IDU	14	3	а	а	14	2					
Heterosexual contact	117	26	120	61	237	36					
Mother with/at risk for HIV	2	0	3	2	5	1					
Other/unknown	55	12	36	18	91	14					
Total	456	100	196	100	652	100					
Notes. These are actual numbers of AIDS cas for reporting delays. Total includes 0 persons of due to rounding. "Other/unknown" risk categor not reported or not identified.	es that ha of unknov y include	ave been vn age or s hemoph	reported. sex. Perce iilia, blood	No adjustr entages ma transfusior	ient has bee ay not total to i, perinatal, a	n made 100 and risk					

 In 2007, the proportion of new AIDS cases was greatest for heterosexuals with heterosexual contact as the probable risk/mode of transmission, followed by MSM, then IDU. Among males, MSM was highest followed by heterosexual contact and then IDU. Among females, heterosexual contact predominates followed by IDU.

	Table No. 13											
Incidence of	AIDS cas	ses in PA	, by sex a	nd age at	diagnosis, 2	2007						
	Ма	les	Fem	ales	Total							
Age (yrs)	No.	%	No.	%	No.	%						
<13	0	0	0	0	0	0						
13-14	1	0	0	0	1	0						
15-24	23	5	9	5	32	5						
25-34	65	14	37	19	102	16						
35-44	175	38	64	33	239	37						
45-54	132	29	58	30	190	29						
55-64	44	10	20	10	64	10						
>=65	16	4	8	4	24	4						
Total	456	100	196	100	652	100						
Notes. These are actua	l numbers o	f AIDS case	s that have be	een reported.	No adjustment	has been						

made for reporting delays. Total includes 0 persons of unknown age or sex. Percentages may not total to 100 due to rounding.

In 2007, among both sexes, the proportion of new AIDS cases remained highest in the 35-44 year age group at 37% of all cases. This was followed by the 45-54 year age group among males, the 45-54 year age group among females, the 55-64 year age group for males, and 25-34, 55-64 for females.

Incidence of AIDS: cases an	٦ d rate race	⊺able es (pe /ethn	No. 14 r 100,(icity, 2) 000 po 2007	opula	tion) iı	n PA, b	y sex	and
		Male	s	F	emal	es		Total	
Race/ethnicity	No.	%	Rate	No.	%	Rate	No.	%	Rate
White, not Hispanic	269	59	5.4	73	37	1.4	342	52	3.3
Black, not Hispanic	129	28	22.8	79	40	12.4	208	32	17.3
Hispanic	54	12	26.8	42	21	21.8	96	15	24.4
Asian/Pacific Islander	4	1	3.7	2	1	1.8	6	1	2.7
American Indian/Alaska Native	0	0	а	0	0	а	1	0	а
Unknown/Multiple Race	0	0	а	0	0	а	0	0	а
Total	456	100	7.6	196	100	3.0	652	100	5.2
Notes. These are actual numbers of AID	S case	s that h	ave bee	n repor	ted. N	o adjustn	nent has	been m	ade for

reporting delays. Total includes 0 persons of unknown sex. Percentages may not total to 100 due to rounding. a Not applicable.

- o In 2007, the statewide AIDS case rate was 5.2 cases per 100,000 population;
- o The rates were disproportionately much higher for males with 2.5 times the rate for women.

• Hispanic males and females had the highest rates followed by black males and females, white males, Asian/ Pacific Islander males and females, then white females.

Table No. 15 AIDS Prevalence: Numbers of persons living with AIDS in PA, by year and sex										
	2003	2004	2005	2006	2007					
Sex	No.	No.	No.	No.	No.					
Males	5,380	5,597	5,831	6,344	7,213					
Females	1,734	1,821	1,925	2,177	2,518					
Total	7,114	7,418	7,756	8,521	9,731					
Notes. These are a for reporting delays	actual numbers of s. Total includes (AIDS cases that persons of unkn	have been report	ed. No adjustment	has been made					

 The overall number of persons living with AIDS (prevalent cases) has been rising steadily; this trend is most likely attributable to HAART and improvement in AIDS survival;

• This pattern was observed among both sexes.

Table No. 16 AIDS Mortality: Numbers of deaths among persons with AIDS in PA, by year of death and sex											
	2003	2004	2005	2006	2007	Cumulative deaths through 2007					
Sex	No.	No.	No.	No.	No.	No.					
Males	187	181	156	68	58	7,376					
Females	60	79	39	21	17	1,334					
Total	247	260	195	89	75	8,686					
Notes. These a for reporting de	ire actual n lays. Total	umbers of includes 0	deaths that persons of	it have bee f unknown	en reported sex.	. No adjustment has been made					

• The overall number of AIDS deaths has been declining through 2007.

• This pattern fluctuated in 2004 for females where there was an increase and then appears to resume the declining trend for the subsequent years.

AIDS Mortality: Numbers and persons with AIDS in PA, by	T d rate sex a	able I s (pei ind ra 200	No. 17 [·] 100,0 ice/eth i7)	00 pc nicity	opulat /, 200	ion) o 6 (as c	f deat of Dec	hs ar embe	nong ∋r 31,
		Male	S	F	emal	es		Tota	1
Race/ethnicity	No.	%	Rate	No.	%	Rate	No.	%	Rate
White, not Hispanic	36	53	0.7	10	48	0.2	46	52	0.4
Black, not Hispanic	21	31	3.7	7	33	1.1	28	31	2.3
Hispanic	11	16	5.5	4	19	2.1	15	17	3.8
Asian/Pacific Islander	0	0	а	0	0	а	0	0	а
American Indian/Alaska Native	0	0	а	0	0	а	0	0	а
Unknown/Multiple Race	0	0	а	0	0	а	0	0	а
Total	68	100	1.1	21	100	0.3	635	100	0.7
Notes. These are actual numbers of dea reporting delays. Total includes 0 persor rounding.	iths that the of un	t have l known	been rep sex. Per	orted. centag	No adji es may	ustment not tota	has bee I to 100	en mad) due to	e for

- o In 2006, the statewide AIDS death rate was 0.7 deaths per 100,000 population;
- The rates were disproportionately much higher for Hispanics with 9.5 times the rate for whites, followed by blacks with 6 times the rate for whites, while the death rate for whites was less than 1%.
- Hispanic males had the highest death rates followed by black males, Hispanic females, black females, followed by white males and females.

AIDS comorbidity incide	Table No. 18 AIDS comorbidity incidence in PA, by sex and tuberculosis comorbidity, 2007. Meloc Total											
	Ма	ales	Ferr	nales	Tot	tal						
Tuberculosis diagnosis	No.	%	No.	%	No.	%						
Not diagnosed	455	99.7	195	99.5	650	99.7						
Definitive case	1	0.2	0	0	1	2						
Presumptive case	0	0	1	0.5	1	0						
Total	456	100	196	100	652	100						
Notes. These are actual numbers of made for reporting delays. Total inditional total to 100 due to rounding.	of AIDS ca cludes 0 p	ersons of u	ave been r Inknown a	eported. No ge or sex. F	o adjustment Percentages r	has been nay not						

o In 2007, co-morbidity of new AIDS diagnoses with tuberculosis was less than 1%.

E. Transmission Risk Groups

- 1. Among all prevalent HIV and AIDS cases, the number of cases was greatest in the MSM population (38%) followed by the heterosexuals with 24% and IDU with 20% of the cases;
- 2. The population of men who have sex with men (MSM), including MSM who also inject drugs accounted for 42% of all prevalent cases with the probable mode of transmission of male-to-male sex accounting for 38% and MSM-IDU accounted for almost 4% of all prevalent cases.IDU became the leading mode of transmission among AIDS cases in 1994, surpassing MSM & remained higher even after introduction of HAART in 1996/7.
- 3. MSM has been the leading mode of transmission among AIDS cases until 2007 where Heterosexual Contact surpassed MSM.
- 4. IDU mode of transmission among AIDS cases reached a peak in 1995 and subsequently has been declining until 2005 where there was an increase in 2006.
- 5. The post-HAART (>1997) pattern of increase may be due to a mixed effect of a) past & ongoing trends of increasing incidence of HIV & b) treatment failure among heterosexuals.
- Most new AIDS cases occurred among heterosexuals around the HAART era as shown in the combined trend line of new AIDS cases occurring among heterosexuals whose probable modes of acquiring transmission of HIV are IDU & Hetero Contact;
- 7. This trend surpassed the combined trend attributable to MSM and MSM-IDU as far back as 1997 when AIDS incidence trends reflected 10-year-old HIV incidence trends;
- 8. Newly-initiated studies will illuminate recent incidence of HIV;
- 9. Although the overall incidence of AIDS has been declining (Table 5.1.);
- 10. By 2007, relative proportions for the respective modes of transmission had changed such that the proportion of new AIDS cases was greatest for heterosexuals whose probable risk/mode of transmission was heterosexual contact followed closely by heterosexuals whose probable risk/mode of transmission was IDU.
- 11. Among males (Table 5.2.), MSM was highest followed closely by Heterosexual Contact and IDU. Among females, Heterosexual contact predominates followed by IDU.
- 12. Among white AIDS cases male-to-male sex (MSM) has the highest proportion of probable modes of transmission, followed by heterosexual contact and IDU;
- 13. Among black AIDS cases heterosexuals have the highest proportion of probable modes of transmission, followed by MSM and IDU;
- 14. Among Hispanic AIDS cases heterosexuals have the highest proportion of probable modes of transmission, followed by IDU and MSM;
- 15. Among Asian/Pacific Islander cases heterosexuals appear to have the highest proportion of probable modes of transmission, followed by MSM, IDU and MSM-IDU all at 17%; however, the number of cases is very small and therefore not likely to be a reliable indicator of distribution.



Figure 24 Distribution of HIV/AIDS by Probable Mode of Transmission in Pennsylvania (excluding Philadelphia)





Fig	ure	26
-		



Table No. 19										
Incidence of AIDS cases	s in PA	by yea	r of dia	gnosis	and ex	posure category				
	2003	2004	2005	2006	2007	Cumulative cases through 2007				
Exposure category	No.	No.	No.	No.	No.	No.				
Male-to-male sex (MSM)	175	183	206	272	212	7,902				
Injection drug use (IDU)	115	101	85	173	93	4,313				
MSM-IDU	28	20	18	35	14	943				
Heterosexual contact	131	152	124	235	237	2,611				
Mother with/at risk for HIV	8	6	3	8	5	551				
Other/unknown	121	102	97	131	91	1,464				
Total	578	564	533	854	652	17,784				
Notes. These are actual numbers of for reporting delays. "Other/upknow	of AIDS ca	ases that	have bee	n reported	I. No adju	ustment has been made				

risk not reported or not identified

- Although the overall incidence of AIDS has been declining (Table 5.1.);
- By 2007, relative proportions for the respective modes of transmission had changed such that the proportion of new AIDS cases was greatest for heterosexuals whose probable risk/mode of transmission was heterosexual contact followed closely by heterosexuals whose probable risk/mode of transmission was IDU.
- Among males, MSM was highest followed closely by Heterosexual Contact and IDU. Among females, Heterosexual contact predominates followed by IDU.

Ta	Table No. 20									
Incidence of AIDS cases in PA by sex and exposure category, 2007										
	Ма	les	Fem	ales	Tot	al				
Exposure category	No.	%	No.	%	No.	%				
Male-to-male sex	212	46	а	а	212	33				
Injection drug use (IDU)	56	12	37	19	93	14				
Male-to-male sex and IDU	14	3	а	а	14	2				
Heterosexual contact	117	26	120	61	237	36				
Mother with/at risk for HIV	2	0	3	2	5	1				
Other/unknown	55	12	36	18	91	14				
Total	456	100	196	100	652	100				
Notes. These are actual numbers of adjustment has been made for rep unknown age or sex. Percentages "Other/unknown" risk category incl and risk not reported or not identifi	of AIDS orting c may no udes ho ed.	cases lelays. ot total emophi	that hav Total ind to 100 d lia, bloo	ve been cludes 0 ue to roi d transfu	reported. persons unding. usion, per	No of inatal,				

	Table No. 21 Incidence of AIDS cases in PA, by race/ethnicity and exposure category, 2007													
	Wł n Hisp	nite, ot panic	Bla nc Hisp	ick, ot oanic	Hisp	anic	Asi Pac Islai	ian/ ific nder	Amer Ind Alas Nat	rican ian/ ska tive	Unk Multip	nown/ ble Race	Tota	al
Exposure ca tegory	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male-to-male sex	146	43	51	25	14	15	1	17	0	0	0	0	212	33
Injection drug use (IDU)	34	10	29	14	29	30	1	17	0	0	0	0	93	14
Male-to-male sex and IDU	9	3	5	2	0	0	0	0	0	0	0	0	14	2
Heterosexual contact	109	32	83	40	42	44	3	50	0	0	0	0	237	36
Mother with/at risk for HIV	3	1	2	1	0	0	0	0	0	0	0	0	5	0.4
Other/ unknown	41	12	12	18	11	11	1	17	0	0	0	0	91	14
Total	342	100	208	100	96	100	6	100	0	0	0	0	652	100

Notes. These are actual numbers of AIDS cases that have been reported. No adjustment has been made for reporting delays. "Other/unknown" risk category includes hemophilia, blood transfusion, perinatal, and risk not reported or not identified. Percentages may not total to 100 due to rounding.

 Among white AIDS cases male-to-male sex (MSM) has the highest proportion of probable modes of transmission, followed by heterosexual contact and IDU;

 Among black AIDS cases heterosexuals have the highest proportion of probable modes of transmission, followed by MSM and IDU;

- Among Hispanic AIDS cases heterosexuals have the highest proportion of probable modes of transmission, followed by IDU and MSM;
- Among Asian/Pacific Islander cases heterosexuals appear to have the highest proportion of probable modes of transmission, followed by MSM, IDU and MSM-IDU all at 17%; however, the number of cases is very small and therefore not likely to be a reliable indicator of distribution.

F. Geographic Distribution

- 1. The distribution of prevalent HIV and AIDS was greatest in AIDS Activities Coordinating Offices (AACO) region (5-counties in the southeastern area including Philadelphia County) with 486 cases per 100,000;
- 2. The prevalence of HIV in the AIDSNET area (6-county area around Lehigh Valley in eastern PA) was the next highest with 43% of AACO, followed by South Central with 36% of AACO. The rate per 100,000 for North Central and Southwest was 32% and 28% of AACO respectively, followed by the Northwest (23%) and the Northeast (21%) of AACO.
- 3. Map of AIDS incidence during the HAART era as an indicator of AIDS treatment failure;
- Recent cumulative AIDS incidence rates (as an indicator of treatment failure) were highest (>25 AIDS cases per 100,000 population) in Philadelphia, Forest, Cameron, Delaware, Huntingdon, Dauphin, Lehigh, Adams and Fulton counties;
- Cumulative case rate per 100,000 population during 2005-2007 were highest in (>100 cases per 100,000 population) Philadelphia, Forest, Cameron, Huntingdon, Adams, Armstrong, Delaware, Union, Sullivan, Clarion, Elk and Lehigh counties;
- 6. Map of PA showing variations of AIDS mortality by county during the HAART era (2005-2007);
- 7. Cumulative AIDS mortality rates were highest (>4 deaths per 100,000) in Philadelphia, Fulton, Elk, Bradford, Lehigh, Huntingdon and Armstrong counties;
- 8. Progression to AIDS, and subsequent AIDS deaths are indicator of antiretroviral therapy failure;
- 9. Map of PA showing variations of HIV mortality by county during the HAART era;
- Recent cumulative HIV mortality rates were highest (>6 deaths per 100,000) in Philadelphia, Cameron, Dauphin, Lehigh, Huntingdon, Blair, Delaware, Union, Allegheny, Fulton, Cumberland, Pike and Wayne counties;
- 11. The AIDS prevalence rates (per 100,000 population) varied widely by county and geographic/coalition/service area demonstrating that several counties were highly impacted;
- Across the state, racial/ethnic minorities account for less than 18% of the general population, more specifically blacks and Hispanics account for about 15% of the general population in PA, and yet they account for 63% of prevalent/living AIDS cases as of December 31, 2007;
- In the AIDS Activities Coordinating Offices service area (AACO which consists of the 5 southeastern counties including Philadelphia County), blacks and Hispanics account for 26% of the general population, and yet they account for 74% of prevalent/living AIDS cases as of December 31, 2007;
- 14. In all other AIDS service coalition areas, blacks and Hispanics account for 2-11% of the general population in PA, and yet they account for 33-59% of prevalent/living AIDS cases as of December 31, 2007;The HIV prevalence rates (per 100,000 population) varied widely by county and coalition area, with several counties being highly impacted;
- 16. Across the state, racial/ethnic minorities account for less than 18% of the general population, more specifically blacks and Hispanics account for about 15% of the general population in PA, and yet they account for 63% of prevalent/living HIV cases as of December 31, 2007;
- 17. In AACO, blacks and Hispanics account for 26% of the general population, and yet they account for 74% of prevalent/living HIV cases as of December 31, 2007;
- 18. In all other HIV/AIDS service coalition areas, blacks and Hispanics account for 2-11% of the general population in PA, and yet they account for 36-60% of prevalent/living HIV cases as of December 31, 2007; across the state, racial/ethnic minorities (particularly blacks and Hispanics) have disproportionately higher rates of persons living with AIDS per 100,000 population;

- 20. Blacks have the highest AIDS prevalence rates (per 100,000 population) in all other AIDS service/ coalition areas of the state followed by Hispanics, with the exception of the Northwest and Southwest, where Hispanics have the highest rates, followed by blacks; Whites have the lowest AIDS prevalence rates (per 100,000 population) in all other AIDS service/coalition areas of the state; Across the state, racial/ethnic minorities (particularly blacks and Hispanics) have disproportionately higher rates of persons living with HIV per 100,000 population,
- 23. Blacks have the highest AIDS prevalence rates (per 100,000 population) in all other AIDS service/ coalition areas of the state followed by Hispanics, with the exception of the AIDSNET, where Hispanics have the highest rates, followed by blacks, Whites have the lowest AIDS prevalence rates (per 100,000 population) in all other AIDS service/ coalition areas of the state.Observed survival time after diagnosis with AIDS is improving consistently with each successive year interval of diagnosis for all planning coalition areas and for the statewide cohort;
- 26. The overall statewide cohort's median number of months survived increased from 9 in 1983-84 to 57 in 1993-94;
- 27. Increasing survival time may result in an increase in the number of persons living with HIV/AIDS;
- 28. An increase in the number of persons living with HIV/AIDS may increase the likelihood of new infections or re-infections.
- 29. By 1998 all regions (except AACO) are at or above Pennsylvania's overall proportion alive at 48 months.
- 30. The Northcentral region had the highest proportion of HIV infected individuals alive after 48 months of follow-up. This summary illustrates each county in Pennsylvania in gradation light to dark to depict each counties population with the average annual rate of change in HIV prevalence (green circles) and the 2007 HIV prevalence rate per 100,000 population (red dots).
- 32. The analysis of recent changes in the HIV epidemic (as mapped and tabulated) indicates that there are 5 counties that were identified as high outcome counties. These counties had a general population of greater than 500,000 AND high average annual rates of increase in HIV/AIDS prevalence (>+6%, between 2004 & 2007) AND high background HIV prevalence rates (> 90 cases per 100,000 population): i.e. Allegheny, Bucks, Delaware, Montgomery and Philadelphia Counties;
- 33. The top tier includes counties that have the greatest population in Pennsylvania, high HIV prevalence (rates per 100,000 population) and increased rate of change in HIV prevalence (2004-2007): e.g. Philadelphia, Delaware, Montgomery, Bucks and Allegheny counties;
- 34. The middle tier includes Erie, Westmoreland, Dauphin, York, Lancaster, Chester, Berks, Lehigh, Northampton and Luzerne counties;
- 35. The lower tier includes the counties Beaver, Armstrong, Blair, Cumberland, Adams, Monroe, Columbia, Lycoming and Bradford;
- 36. The analysis of recent changes in the HIV epidemic (as mapped and tabulated) indicates that there are 5 counties that were identified as high outcome counties based on population, average annual rate of change and HIV prevalence rates.
- 37. The top tier of counties in Pennsylvania are classified by a population >500,000, a high average annual rates of increase in HIV/AIDS prevalence (>+6%, between 2004 & 2007) AND a high background HIV prevalence rate (> 90 cases per 100,000 population): i.e. Allegheny, Bucks, Delaware, Montgomery and Philadelphia counties;



Figure 27 Disproportionate Impact of HIV/AIDS by Geographic/Coalition





- o Map of AIDS incidence during the HAART era as an indicator of AIDS treatment failure;
- Recent cumulative AIDS incidence rates (as an indicator of treatment failure) were highest (>25 AIDS cases per 100,000 population) in Philadelphia, Forest, Cameron, Delaware, Huntingdon, Dauphin, Lehigh, Adams and Fulton counties.



HIV (including AIDS) Cumulative Case Rates in HIV Planning Regions, Pennsylvania Counties, 2005-2007

Cumulative case rate per 100,000 population during 2005-2007 were highest in (>100 cases per 100,000 population) Philadelphia, Forest, Cameron, Huntingdon, Adams, Armstrong, Delaware, Union, Sullivan, Clarion, Elk and Lehigh counties



AIDS Cumulative Mortality Rates in HIV Planning Regions, Pennsylvania Counties, 2005-2007

- Map of PA showing variations of AIDS mortality by county during the HAART era (2005-2007).
- Cumulative AIDS mortality rates were highest (>4 deaths per 100,000) in Philadelphia, Fulton, Elk, Bradford, Lehigh, Huntingdon and Armstrong counties.
- Progression to AIDS, and subsequent AIDS deaths are indicator of antiretroviral therapy failure.



HIV (including AIDS) Cumulative Mortality Rates in HIV Planning Regions, Pennsylvania Counties, 2005-2007

- Map of PA showing variations of HIV mortality by county during the HAART era.
- Recent cumulative HIV mortality rates were highest (>6 deaths per 100,000) in Philadelphia, Cameron, Dauphin, Lehigh, Huntingdon, Blair, Delaware, Union, Allegheny, Fulton, Cumberland, Pike and Wayne counties.

Disproportionate Geographic Distribution of Persons Living with AIDS (AIDS Prevalence) and Distribution of the General Population

Map of prevalence rates per 100,000 in each County and Coalition Area; Tables showing distribution of proportions of living AIDS cases and of the general population by Race/Ethnicity of each coalition Area



- The AIDS prevalence rates (per 100,000 population) varied widely by county and geographic/coalition/service area demonstrating that several counties were highly impacted.
- Across the state, racial/ethnic minorities account for less than 18% of the general population, more specifically blacks and Hispanics account for about 15% of the general population in PA, and yet they account for 63% of prevalent/living AIDS cases as of December 31, 2007.
- In the AIDS Activities Coordinating Offices service area (AACO which consists of the 5 southeastern counties including Philadelphia County), blacks and Hispanics account for 26% of the general population, and yet they account for 74% of prevalent/living AIDS cases as of December 31, 2007.
- In all other AIDS service coalition areas, blacks and Hispanics account for 2-11% of the general population in PA, and yet they account for 33-59% of prevalent/living AIDS cases as of December 31, 2007.

Disproportionate Geographic Distribution of Persons Living with HIV (HIV including AIDS Prevalence) and Distribution of the General Population

Map of prevalence rates per 100,000 in each County and Coalition Area; Tables showing distribution of proportions of living AIDS cases and of the general population by Race/Ethnicity of each Coalition Area



- The HIV prevalence rates (per 100,000 population) varied widely by county and coalition area, with several counties being highly impacted.
- Across the state, racial/ethnic minorities account for less than 18% of the general population, more specifically blacks and Hispanics account for about 15% of the general population in PA, and yet they account for 63% of prevalent/living HIV cases as of December 31, 2007.
- In AACO blacks and Hispanics account for 26% of the general population, and yet they account for 74% of prevalent/living HIV cases as of December 31, 2007.
- In all other HIV/AIDS service coalition areas, blacks and Hispanics account for 2-11% of the general population in PA, and yet they account for 36-60% of prevalent/living HIV cases as of December 31, 2007.

Disproportionate Geographic Distribution of Persons Living with AIDS (AIDS Prevalence)

Map of prevalence rates per 100,000 in each County and Coalition Area; Tables showing number and rate by Race/Ethnicity of each coalition Area

Northwest Pennsylvania Runal ADS Allance North Central District ADS Coalition NUMBER RATE WHITE (NON-HISPANIC) 374 374 41.73 BLACK (NON-HISPANIC) 374 BLACK (NON-HISPANIC) 388 04 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 94.021 94 95.022 95 96.025 98 97.021 98 98.021 98 99.021 98 99.021 98 99.021 98 99.021 98 99.021 98 99.021 98 99.021
NUMBER RATE WHITE (NON-HISPANIC) 374 41.73 SLACK (NON-HISPANIC) 221 708.16 BLACK (NON-HISPANIC) 221 708.16 HISPANIC 04 940.38
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4ISPANIC 116 576.94 HISPANIC 396 606.26 HISPANIC 1.353

- Across the state, racial/ethnic minorities (particularly blacks and Hispanics) have disproportionately higher rates of persons living with AIDS per 100,000 population;
- Blacks have the highest AIDS prevalence rates (per 100,000 population) in all other AIDS service/ coalition areas of the state followed by Hispanics, with the exception of the Northwest and Southwest, where Hispanics have the highest rates, followed by blacks. Whites have the lowest AIDS prevalence rates (per 100,000 population) in all other AIDS service/coalition areas of the state;

Disproportionate Geographic Distribution of Persons Living with HIV (HIV including AIDS Prevalence)

Map of prevalence rates per 100,000 in each County and Coalition Area; Tables showing number and rate by Race/Ethnicity of each Coalition Area



- Across the state, racial/ethnic minorities (particularly blacks and Hispanics) have disproportionately higher rates of persons living with HIV per 100,000 population.
- Blacks have the highest AIDS prevalence rates (per 100,000 population) in all other AIDS service/ coalition areas of the state followed by Hispanics, with the exception of the AIDSNET, where Hispanics have the highest rates, followed by blacks.
- Whites have the lowest AIDS prevalence rates (per 100,000 population) in all other AIDS service/ coalition areas of the state.

Figure 36 Geographic variation in survival after diagnosis with AIDS in Pennslvania 160 Pennsylvania 140 -AACO survived after AIDS diagnosis AIDSNET 120 -----Southcentral 100 80 ----Northwest Median # of months 60 Northcentra Northeast 40 LL** 95% CI* Median Pennsylvania 20 UL*** 95% CI* Median Pennsylvania 0 1994 1996 1998 2000 2002 1984 1988 199 1992 Year of diagnosis

CI* Confidence intervals, **UL, 95%CI upper limit; ***LL, 95% CI Lower Limit

- Observed survival time after diagnosis with AIDS is improving consistently with each successive year
- interval of diagnosis for all planning coalition areas and for the statewide cohort;
 The overall statewide cohort's median number of months survived increased from 9 in 1983-84 to 57 in 1993-94;
- o Increasing survival time may result in an increase in the number of persons living with HIV/AIDS;
- An increase in the number of persons living with HIV/AIDS may increase the likelihood of new infections or re-infections.





Geographic Variation in Survival after Diagnosis with AIDS in Pennsylvania

- By 1998 all regions (except AACO) are at or above Pennsylvania's overall proportion alive at 48 months.
- The Northcentral region had the highest proportion of HIV infected individuals alive after 48 months of follow-up.

Geographic variation in HIV (including AIDS) Epidemic Growth Rate for 2004 – 2007
 Lower Tier: Population ≥ 50,000; Avg. Ann. Rate of Change in HIV Prevalence > 6%; & HIV Prev ≥135 cases per 100,000 pop.
 Middle Tier:Population ≥ 250,000; Avg. Ann. Rate of Change in HIV Prevalence > 6%; & HIV Prev ≥ 80 cases per 100,000 pop.
 Top Tier: Population ≥ 500,000; Avg. Ann Rate of Change in HIV Prev> 6%; & HIV Prev ≥ 90 cases per 100,000 pop.



- This summary illustrates each county in Pennsylvania in gradation light to dark to depict each counties population with the average annual rate of change in HIV prevalence (green circles) and the 2007 HIV prevalence rate per 100,000 population (red dots).
- The analysis of recent changes in the HIV epidemic (as mapped and tabulated) indicates that there are 5 counties that were identified as high outcome counties. These counties had a general population of greater than 500,000 AND high average annual rates of increase in HIV/AIDS prevalence (>+6%, between 2004 & 2007) AND high background HIV prevalence rates (> 90 cases per 100,000 population): i.e. Allegheny, Bucks, Delaware, Montgomery and Philadelphia Counties;





- The top tier includes counties that have the greatest population in Pennsylvania, high HIV prevalence (rates per 100,000 population) and increased rate of change in HIV prevalence (2004-2007): e.g. Philadelphia, Delaware, Montgomery, Bucks and Allegheny counties;
- The middle tier includes Erie, Westmoreland, Dauphin, York, Lancaster, Chester, Berks, Lehigh, Northampton and Luzerne counties;
- The lower tier includes the counties Beaver, Armstrong, Blair, Cumberland, Adams, Monroe, Columbia, Lycoming and Bradford;





- The analysis of recent changes in the HIV epidemic (as mapped and tabulated) indicates that there are 5 counties that were identified as high outcome counties based on population, average annual rate of change and HIV prevalence rates.
- The top tier of counties in Pennsylvania are classified by a population >500,000, a high average annual rates of increase in HIV/AIDS prevalence (>+6%, between 2004 & 2007) AND a high background HIV prevalence rate (> 90 cases per 100,000 population): i.e. Allegheny, Bucks, Delaware, Montgomery and Philadelphia counties;

G. AIDS Incidence, AIDS Prevalence and HIV Prevalence:

1. AIDS Incidence:

- a. AIDS incidence is defined (by HRSA) as the number of new AIDS cases diagnosed during the period specified
- b. The greatest incidence of AIDS cases was among blacks comprising 50% of all newly diagnosed AIDS cases, which was 12 times the rate per 100,000 population than whites; Hispanics were 12% of the new AIDS cases diagnosed in 2007, yet they were 9 times the rate per 100,000 population than whites;
- c. Males were twice as likely as females to have been diagnosed with AIDS in 2007;
- d. 20-44 years old group contributed 55% of all AIDS cases;

2. AIDS Prevalence:

- a. AIDS prevalence is defined (by HRSA) as the number of people presumed still alive after AIDS diagnosis as of the date specified.
- b. Combined, blacks and Hispanics comprised 63% of all prevalent AIDS cases even though these minority groups only total 15% of the general population in PA. These populations were disproportionately affected with blacks having 12 times the rate per 100,000 and Hispanics having 10 times the rate when compared to whites.
- c. Males where nearly 3 times more likely than females to be living with AIDS in 2007;
- d. More than 70% of all persons living with AIDS were among the 20-44 years old age group for 2007;

3. HIV (non-AIDS) Prevalence:

- a. HIV prevalence is defined (by HRSA) as the number of diagnosed people presumed still alive with HIV(not AIDS) as of the date specified.
- b. Combined, blacks and Hispanics comprised 62% of all prevalent HIV cases even though these minority groups only total 15% of the general population in PA. These race/ethnic minorities were disproportionately affected with blacks having 11 times the rate per 100,000 and Hispanics having 9 times the rate when compared to whites.
- c. Males constitute nearly 70% of all living HIV cases;
- d. HIV prevalence was greatest among the 20-44 years group (61%) followed by the greater than 44 years group (36%), 13-19 years (2%) and less than 13 years (1%);
- e. When behavioral risk groups of infected persons living with HIV are combined into reservoirs of potential sources of HIV infection, the greatest proportions of prevalent HIV cases was found among a) heterosexuals (who may have acquired HIV through IDU or hetero contact) with a collective total of 57%, b) MSM (who may have acquired HIV through MSM or MSM-IDU risk behaviors) with a collective total of 34%, and d) IDU (who may have acquired HIV through IDU) with a collective total of 25%;

4. Comparison of 2007 to 2008:

- The number of new/incident AIDS cases diagnosed in Pennsylvania in 2007 was 1,497 and this number decreased by almost 23% to 1,153 in 2008 (based on case reporting to PA Dept of Health through June 30, 2009);
- b. The estimated cumulative number of prevalent AIDS cases (people living with AIDS, PLWA) was 20,750 as of 12/31/2007 and increased by about 5% to 21,793 as of 12/31/2008 (based on case reporting to PA Dept of Health through June 30, 2009);
- c. The estimated prevalent number of HIV cases [HIV(not AIDS), people living with HIV, PLWH] in PA was 12,471 as of 12/31/2007, and increased by about 13% to 14,121 as of 12/31/2008 (based on case reporting to PA Dept of Health through June 30, 2009);

5. **Conclusions/Public Health Recommendations:**

a. Due to antiretroviral therapy and other improvements in HIV/AIDS treatments there has been a steady decline in the number of AIDS cases.

- b. Highly active antiretroviral therapy has improved survival of infected persons, which translates into increasing HIV/AIDS prevalence, and thus results in a growing potential source population which can transmit the virus.
- c. An increase in the number of person living longer with HIV/AIDS requires increased resources for care and prevention services. Therefore, there is an urgent need for strengthening and expanding targeted prevention interventions aimed at interrupting transmission of HIV occurring from infected subpopulations of: a) heterosexuals (who may have acquired HIV through IDU and hetero contact), b) MSM (who may have acquired HIV through MSM and MSM-IDU risk behaviors), and c) IDU (who may have acquired HIV through IDU).

TABLE No. 22 AIDS PE	AIDS INCIDENCE, AIDS PREVALENCE AND HIV (NOT AIDS) PREVALENCE BY RACE/ETHNICITY, SEX, AND AGE AS OF 12/31/2007												
DEMOGRAPHIC CATEGORY	GENERAL POPULATION	AIDS	INCIDENCE 2	007	AID	S PREVALENC	E	HIV (NOT AIDS) PREVALENCE					
Race/ Ethnicity	N, population (2000 census)	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	rates per 100,000			
White, not Hispanic	10,322,455	552	36.87	5.35	7,583	36.54	73.46	4,674	37.48	45.28			
Black, not Hispanic	1,202,437	748	49.97	62.21	10,251	49.40	852.52	6,048	48.50	502.98			
Hispanic	394,088	182	12.16	46.18	2,795	13.47	709.23	1,630	13.07	413.61			
Asian/Pacific Islander	220,987	13	0.87	5.88	107	0.52	48.42	70	0.56	31.68			
Other, Multirace & Not specified(not Hispanic)*	141,087	2	0.13	1.42	14	0.07	9.92	49	0.39	34.73			
State population	12,281,054	1,497	^*100	12.19	20,750	^*100	168.96	12,471	^*100	101.55			
Sex	N, population (2000 census)	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	rates per 100,000			
Male	5,929,663	1,036	69.21	17.47	15,371	74.08	259.22	8,395	67.32	141.58			
Female	6,351,391	461	30.79	7.26	5,379	25.92	84.69	4,076	32.68	64.17			
State population	12,281,054	1,497	^*100	12.19	20,750	^*100	168.96	12,471	^*100	101.55			
Age	N, population (2000 census)	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	rates per 100,000			
<13 years	2,212,588	0	0.00	0.00	229	1.10	10.35	162	1.30	7.32			
13–19 years	892,770	13	0.87	1.46	181	0.87	20.27	253	2.03	28.34			
20- 44 years	4,060,403	830	55.44	20.44	14,896	71.79	366.86	7,557	60.60	186.11			
>44 years^	5,115,293	654	43.69	12.79	5,444	26.24	106.43	4,499	36.08	87.95			
State population^^	12,281,054	1,497	^*100	12.19	20,750	^*100	168.96	12,471	^*100	101.55			

*Other, Multirace & not specified (not Hispanic) includes American Indians & Alaskan natives.^{AAS}State pop. for age groups incl. cases of

unknown age not shown in breakdowns; ^* State pop. & total percentages are rounded to nearest 100% (or nondecimal figure);

TABLE 23 AIDS INCIDENCE, AIDS PREVALENCE AND HIV (NOT AIDS) PREVALENCE BY DEMOGRAPHIC GROUP AND EXPOSURE CATEGORY AS OF											
EXPOSURE CATEGORY	GENERAL POPULATION	12/31/200 AIDS INCIDENCE 2007			7 AIDS PREVALENCE			HIV (NOT AIDS) PREVALENCE			
Adult/Adolescent Exposure Category	N, Population	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	
Male-Sex w/Male(MSM)	NA	426	28.55	NA	6,950	33.95	NA	3,847	31.53	NA	
Injection Drug Users(IDU)	NA	291	19.50	NA	6,120	29.90	NA	2,778	22.76	NA	
MSM-IDU	NA	30	2.01	NA	963	4.70	NA	311	2.55	NA	
Hetero: Male-Sex w/Female	NA	612	41.02	NA	5,190	25.35	NA	4,168	34.16	NA	
Other/Hemophilia/ blood transfusion	NA	5	0.34	NA	146	0.71	NA	55	0.45	NA	
Risk not reported/ identified	NA	128	8.58	NA	1,102	5.38	NA	1,044	8.56	NA	
All adult/ adolescent cases	NA	1,492	^*100	NA	20,471	^*100	NA	12,203	^*100	NA	
Pediatric AIDS Exposure Categories	N, Population	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	
Mother with/at risk for HIV infection	NA	3	60.00	NA	239	85.66	NA	243	90.67	NA	
Other/Hemophilia/ blood transfusion	NA	0	0.00	NA	20	7.17	NA	6	2.24	NA	
Risk not reported or identified	NA	2	40.00	NA	20	7.17	NA	19	7.09	NA	
All pediatric cases	NA	5	^*100	NA	279	^*100	NA	268	^*100	NA	

^*Data on all adult/adolescent and pediatric cases, and total percentages have been rounded to the nearest 100% (or nondecimal figure);

TABLE 24 AIDS INCIDENCE, AIDS PREVALENCE AND HIV (NOT AIDS) PREVALENCE BY RACE/ETHNICITY, SEX AND AGE AS OF 12/31/2008										
DEMOGRAPHIC CATEGORY	GENERAL POPULATION	AIDS INCIDENCE 2008			AIDS PREVALENCE			HIV (NOT AIDS) PREVALENCE		
Race/ Ethnicity	N, population (2000 census)	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000
White, not Hispanic	10,322,455	419	36.34	4.06	7,957	36.51	77.08	5,207	36.87	50.44
Black, not Hispanic	1,202,437	577	50.04	47.99	10,773	49.43	895.93	6,904	48.89	574.17
Hispanic	394,088	143	12.40	36.29	2,929	13.44	743.24	1,847	13.08	468.68
Asian/Pacific Islander	220,987	13	1.13	5.88	119	0.55	53.85	83	0.59	37.56
Other, Multirace & Not specified(not Hispanic)*	141,087	1	0.09	0.71	15	0.07	10.63	80	0.57	56.70
State population	12,281,054	1,153	^*100	9.39	21,793	^*100	177.45	14,121	^*100	114.98
Sex	N, population (2000 census)	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000
Male	5,929,663	823	71.38	13.88	16,114	73.94	271.75	9,592	67.93	161.76
Female	6,351,391	330	28.62	5.20	5,679	26.06	89.41	4,529	32.07	71.31
State population	12,281,054	1,153	^*100	9.39	21,793	^*100	177.45	14,121	^*100	114.98
Age	N, population (2000 census)	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000
<13 years	2,212,588	0	0.00	0.00	229	1.05	10.35	164	1.16	7.41
13–19 years	892,770	16	1.39	1.79	196	0.90	21.95	325	2.30	36.40
20- 44 years	4,060,403	601	52.12	14.80	15,440	70.85	380.26	8,584	60.79	211.41
>44 years^	5,115,293	536	46.49	10.48	5,928	27.20	115.89	5,048	35.75	98.68
State population ^{^^}	12,281,054	1,153	^*100	9.39	21,793	^*100	177.45	14,121	^*100	114.98

*Other, Multirace & not specified (not Hispanic) includes American Indians & Alaskan natives.^{AC}State pop. for age groups incl. cases of

unknown age not shown in breakdowns; ^* State pop. & total percentages are rounded to nearest 100% (or nondecimal figure);
				TABLE 2	5					
AIDS INCIDENCE, AID	OS PREVALENCE A	ND HIV (NO	T AIDS) PRE		BY DEMO	GRAPHIC G		EXPOSUR	E CATEGOF	RY AS OF
EXPOSURE CATEGORY	GENERAL POPULATION	AIDS	SINCIDENCE 2	2008	AID	S PREVALEN	CE	HIV (NC	OT AIDS) PREV	ALENCE
Adult/Adolescent Exposure Category	N, population	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000
Male-Sex w/Male(MSM)	NA	327	28.51	NA	7,249	33.70	NA	4,449	32.15	NA
Injection Drug Users(IDU)	NA	183	15.95	NA	6,268	29.14	NA	2,916	21.07	NA
MSM-IDU	NA	31	2.70	NA	987	4.59	NA	349	2.52	NA
Hetero: Male-Sex w/Female	NA	496	43.24	NA	5,649	26.26	NA	4,945	35.73	NA
Other/Hemophilia/ blood transfusion	NA	3	0.26	NA	149	0.69	NA	55	0.40	NA
Risk not reported/ identified	NA	107	9.33	NA	1,207	5.61	NA	1,124	8.12	NA
All adult/ adolescent cases	NA	1,147	^*100	NA	21,509	^*100	NA	13,838	^*100	NA
Pediatric AIDS Exposure Categories	N, population	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000	# Cases	%	Rates per 100,000
Mother with/at risk for HIV infection	NA	6	100.00	NA	244	85.92	NA	254	89.75	NA
Other/Hemophilia/ blood transfusion	NA	0	0.00	NA	20	7.04	NA	6	2.12	NA
Risk not reported or identified	NA	0	0.00	NA	20	7.04	NA	23	8.13	NA
All pediatric cases	NA	6	^*100	NA	284	^*100	NA	283	^*100	NA

^*Data on all adult/adolescent and pediatric cases, and total percentages have been rounded to the nearest 100% (or nondecimal figure);

Data used for these 2007-8 prevalence analyses include presumptively diagnosed cases. Tabulations excluding presumptive cases are available on request. The PA Dept of Health performed analyses of HIV prevalence in Pennsylvania following CDC-recommended methods for states with HIV reporting data in the *Integrated Epidemiologic Profile of HIV/AIDS in Pennsylvania at:* <u>http://www.health.state.pa.us/hivepi-profile</u>.

H. Estimation of Unmet Need for HIV-Related Primary Medical Care in Pennsylvania Using the HRSA/HAB Unmet Need Framework

- 1. **Objectives:** To estimate the extent of Unmet Need for HIV-related Primary Medical Care in Pennsylvania Using the HRSA/HAB Unmet Need Framework.
- Study Population Size Estimation: The population of persons living with HIV or AIDS (PLWH/A) in PA was estimated based on analyses of the database of the electronic HIV/AIDS Reporting System (eHARS) for case reporting of HIV/AIDS in PA.
- Primary Outcome Measure: Our primary outcome measure is the proportion (%) of PLWH or PLWA with a past history of receiving HIV-related services who had unmet need for primary medical care [i.e. no evidence of receiving any one of the three indicators of HIV-related primary medical care: viral load (VL) testing or CD4 count or provision of ART during a 12-month time frame].
- 4. Analyses Methods: We analyzed data from eHARS to determine the size of the population of persons living with HIV or AIDS (PLWH/A) in PA as of 12/31/2008. To estimate the proportion of PLWH/A with unmet needs for HIV-related primary medical care (HRPMC), care pattern data on the proportion of persons with unmet needs was derived from Medicaid and ADAP data for publicly-insured patients, and from Part C HRSA-funded sentinel sites for privately-funded patients, and a composite measure of the proportion of PLWH/A with unmet needs in the jurisdiction. A modified version of Option 2 of the HRSA Unmet Need Framework was used to calculate the number of PLWH/A with unmet needs as shown in calculations in Attachment 6 (of this application). The results were validated using Option 3 of the HRSA Unmet Need Framework.
- 5. Rationale for Selection of the above-referenced Methods: Pennsylvania promulgated regulations for reporting of HIV in 2002, and this has enabled the jurisdiction to use eHARS-equivalent data collected through the PA-NEDSS system to determine the sizes of populations of PLWH/A as described above. However, current HIV reporting regulations do not include undetectable viral loads and CD4 T-lymphocytes greater than 200 cells/ul or 14%, hence it is still not possible to use eHARS/reporting data to estimate care patterns in the absence of laboratory test results of all viral load and CD4 T-lymphocytes counts. Amendment of HIV reporting regulations in PA is still in progress in order to include undetectable viral loads and CD4 T-lymphocytes counts. Amendment of HIV reporting regulations in PA is still in progress in order to include undetectable viral loads and CD4 T-lymphocytes greater than 200 cells/ul or 14%. In the meantime, the jurisdiction continues to use Medicaid, ADAP and Part C data to estimate care patterns.
- 6. Results of the estimation of unmet needs using a modified version of Option 2 of the HRSA Unmet Need Framework: Of the 35914 people estimated to be living with HIV/AIDS in the jurisdiction, we estimate that 25563 (or 71%) received HIV primary medical care during the specified time period, while 10351 (or 29%) demonstrated unmet need for HIV primary medical care. Among the 21793 people with AIDS, 6538 (or 30%)^ had unmet need, and among the 14121 people with HIV (non-AIDS), 3813 (or 27%)^ had unmet need. Additional details are shown in the HRSA Unmet Need Framework in Attachment 6 (of this application) showing the: (1) values, (2) all data sources, and (3) calculations.
- 7. Results of the estimation of unmet needs using Option 3 of the HRSA Unmet Need Framework: Of the 35914 people estimated to be living with HIV/AIDS in the jurisdiction, we estimate that 24042 (or 67%) received HIV primary medical care during the specified time period, while 11872 (or 33%) demonstrated unmet need for HIV primary medical care. Among the 21793 people with AIDS, 9992 (or 46%) had unmet need, and among the 14121 people with HIV (non-AIDS), 1881 (or 13%) had unmet need.

- 8. Limitations: As described under the above subsection on rationale for selection of the methods described above, the estimates of unmet needs rely on a multitude of data sources as opposed to the most ideal source (which is the eHARS for case reporting of HIV/AIDS).
- **9. Cross-Program Collaboration**: The collaborating programs which contributed data to the estimation of unmet needs include eHARS-equivalent data on case reporting of HIV/AIDS (for estimation of population size of PLWH/A in PA), Medicaid & ADAP (for care patterns among publicly-insured patients), and selected sentinel Part C (for care patterns among privately-insured patients).
- 10. **Conclusions and Public Health Recommendations**: Based on cross-validation using HRSAframework methods described above, we estimate that 29-33% of persons living with HIV in PA, who are aware of their HIV status, have unmet needs for HIV-related primary medical care. This estimate indicates that a substantial number of persons living with HIV who are aware of their HIV status can potentially remain out of care for sustained period of up to 1 year or longer. Further studies to refine these findings, including demonstration projects to assess and address unmet needs are continuing in 2010-11.

Table 26

Modified Option 2 Framework and Estimated Numbers of Persons with Unmet Needs for Primary Medical Care among Persons Living with HIV(non-AIDS PLWH) and AIDS (PLWA) based on Estimates among Publicly vs. Privately Insured HIV+/aware populations.

Publicly & Privately Insured HIV	+/aware Populat	ion: Using population and car OPTION 2: Care Data	e pattern data as Percents	to calculate unmet need fo	r HIV primai	y medical care
Input	Value	Data Source^^^	Value	Data Source^^^	Value	Data Source
Population Sizes	Total Publ	icly & Privately Insured	Publicly-	Insured (75% of Total)^^	Privately	-Insured(25% of Total)^^
A. Number of persons living with AIDS (PLWA), recent time period	21793	[2008 eHARS Data on PLWH/A]	16345	[2008 eHARS data on PLWH/A; derived proportions of public vs.	5448	[2008 eHARS data on PLWH/A; derived proportions of public vs.
B. Number of persons living with HIV (PLWH non- AIDS/aware), recent time period	14121	14121 [2008 eHARS Data on PLWH/A]		[2008 eHARS data on PLWH/A; derived proportions of public vs. private patients]	3530	[2008 eHARS data on PLWH/A; derived proportions of public vs. private patients]
A+B: Total^ number of persons living with HIV [PLWA+PLWH(non-AIDS/aware)]	35914		26936		8978	
Care Patterns						
C. Percent ^A of PLWA who received the specified HIV primary medical care services in 12-month	70%	[PA Medicaid+ADAP & Part C Sentinel Site Data]	63%	[PA Medicaid & ADAP Data]	90%	[PA Part C sentinel site data]
D. Percent [^] of PLWH (aware, non-AIDS) who received the specified HIV primary medical care	73%	[PA Medicaid+ADAP & Part C Sentinel Site Data]	68%	[PA Medicaid & ADAP Data]	90%	[PA Part C sentinel site data]
Calculated Results	Value	Calculation	Value	Calculation	Value	Calculation
E. Number of PLWA who did not receive primary medical services	6538	21793 - (21793 * 0.7)	6048	16345 - (16345 * 0.63)	545	5448 - (5448 * 0.9)
F. Number of PLWH (non-AIDS, aware) who did not receive primary medical services	3813	14121 - (14121 * 0.73)	3389	10590.75 - (10590.75 * 0.68)	353	3530 - (3530 * 0.9)
G. Total^ HIV+/aware not receiving specified orimary medical care services (quantified estimate of unmet need)	10351	10351 out of 35914 (or 29% with unmet need)	9437	9437 out of 26935.75 (or 35% with unmet need)	898	898 out of 8978 (or 10% with unmet need)

SUMMARY: Of the 35914 people estimated to be living with HIV/AIDS in the jurisdiction, we estimate that 25563 (or 71%) received HIV primary medical care during the specified time period, while 10351 (or 29%) demonstrated unmet need for HIV primary medical care. Among the 21793 people with AIDS, 6538 (or 30%)^ had unmet need, and among the 14121 people with HIV (non-AIDS), 3813 (or 27%)^ had unmet need.

FOOTNOTES: ^Totals and percentages may not add to expected exact sums due to rounding; ^The proportions of privately vs. publicly insured is estimated as 25% and 75%, respectively based on HARS data; ^Data sources and methods are described in the narrative.

 Table 27

 Modified Option 2 Framework and Estimated Numbers of Persons with Unmet Needs for Primary Medical Care among Persons Living with

 HIV(non-AIDS PLWH) and AIDS (PLWA) in Statewide & HIV/AIDS Service Coalition Areas

Using population and care pattern data to calculate unmet need for HIV primary medical care OPTION 2: Care Data as Percents													
Calculation of Indicators of Unmet Need	Statewide	Coalition Area=>		TPAC	South central	South west	North west	North central	North east	AIDSNET			
Input Population Sizes	Value	Data Source		Value	Value	Value	Value	Value	Value	Value			
A. Number of persons living with AIDS (PLWA), recent time period	21,793	[2008 eHARS Data on PLWH/A]		9,862	1,430	1,322	286	354	251	1,092			
B. Number of persons living with HIV (PLWH non-AIDS/aware), recent time period	14,121	[2008 eHARS Data on PLWH/A]		12,006	1,741	1,609	348	431	306	1,329			
A+B: Total number of persons living with HIV	35,914			21,868	3,171	2,931	634	785	557	2,421			
Care Patterns													
C. Percent of PLWA who received the specified HIV primary medical care services in 12-month period	70%	[PA Medicaid+ADAP & Part C Sentinel Site Data]		60%	73%	70%	87%	90%	89%	64%			
D. Percent of PLWH (aware, non-AIDS) who received the specified HIV primary medical care services in 12-month period	73%	[PA Medicaid+ADAP & Part C Sentinel Site Data]		66%	67%	69%	73%	78%	79%	74%			
Calculated Results	Value	Calculation		Value	Value	Value	Value	Value	Value	Value			
E. Number of PLWA who did not receive primary medical services	6538	21793 - (21793 * 0.7)		3945	386	397	37	35	28	393			
F. Number of PLWH (non-AIDS, aware) who did not receive primary medical services	3813	14121 - (14121 * 0.73)		4082	575	499	94	95	64	346			
G. Total HIV+/aware not receiving specified primary medical care services (quantified estimate of unmet need)	10351	10351 out of 35914 (or 29% with unmet need)		8027	961	896	131	130	92	739			

Summary of Statewide Findings

Of the 35914 people estimated to be living with HIV/AIDS in the jurisdiction, we estimate that 25563 (or 71%) received HIV primary medical care during the specified time period, while 10351 (or 29%) are estimated to have unmet need for HIV primary medical care. Among the 21793 people with AIDS, 6538 (or 30%) had unmet need, and among the 14121 people with HIV (non-AIDS), 3813 (or 27%) had unmet need.

Footnotes:

- a. The coalition/regional data does not collectively reflect 100% of the statewide total due to a small number of cases with unspecified residence (not shown) that are not assigned to a particular coalition/region.
- b. Each coalition/regional sample's estimates of PLWH/A (rows C & D) are based on independent distributions for the particular region, hence the sum of estimates of PLWH/A (rows E & F) in each coalition/region may differ slightly from the statewide total

Using popula	ation and care OF	patter PTION	n data to calculate unmet need	for HIV
Input	Value	D	Use this table if you have separate information or HIV primary medical care through private and put	lic sources.
Domulation Office	, and		"Important note" If you are using lab reporting in help estimate unmet need and you wish to use the	i HARS to is table, you
A. Number of persons living with AIDS (PLWA), recent time period	21793		private sources from those who received care the sources in your lab reporting database. If you are make this separation, please use Option 1 (Numl Option 2 (Percent).	ough public not able to per) or
B. Number of persons living with HIV (PLWH non-AIDS/aware), recent time period	14121		 <u>Rows A & B</u>: In the "Value" column, enter the nt PLWA and PLWH (non-AIDS/aware) living in you during the specified time period. In the "Data Sou indicate the source for these data. (See pages 4- Practical Guide for discussion.) 	Imber of r jurisdiction rce" column, 5 of the
Care Patterns Among PLWA			- Row C1: In the "Value" column, enter the percent	nt of PLWA
C1. Percent of PLWA who relied on private care in a 12-month period	25%	[]	who are receiving care through private sources (s 17-18 of the Practical Guide). In the "Data Source indicate the source for these data. Note that HCU federal study of hospital discharges.	ee pages e" column, P is a
C2. Percent of those in row C1 who received the specified HIV primary medical care services in a 12-month period	90%	(I	 <u>Row C2</u>: In the "Value" column, enter the percet Row C1 (PLWA with private care) who received it HIV primary medical care services. If this percent make an estimate. In the "Data Source" column, i source for these data. 	nt of those in ne specified is unknown, ndicate the
C3. Number of PLWA who received the specified HIV primary medical care services through <u>private</u> sources in a 12-month period	4,903	A X	 <u>Row C3</u>: The estimated number of PLWA who r primary medical care services during the specifie period through private sources will be automatica calculated. <u>Row C4</u>: In the "Value" column, enter the numbu who are accession care through public care source 	eceived HIV d time lly er of PLWA
C4. Number of PLWA who received the specified HIV primary medical care services through <u>public</u> sources in a 12-month period	6,898		¹¹ Data Source [*] column, indicate the source for the (see pages 5-8 of the Practical Guide) <u>Row CS</u> : The number of PLWA with met need (t receiving the specified primary medical care serv automatically calculated.	he number
C5 Number of PLWA with met need for HIV primary medical care in a 12-month period.	11,801	C	Rows D1-D5: These rows exactly parallel Rows Follow those instructions. Once rows A-D5 are done, the calculated result automatically appear in rows E-G, and a narrative of the result will appear below the thole.	C1-C5. s will description
Care Patterns Among PLWH (aware, no	n-AIDS)		- Row G indicates the total number of HIV+/aware	e individuals
D1. Percent of PLWH (aware, non-AIDS) who relied on private care in a 12-month period	25%	(I	with unmet need The table and narrative description of the results useful in your FY05 Title I/Title II application.	s will be
D2. Percent of those in row D1 who received the specified HIV primary medical care services in a 12-month period	90%	[]		
D3. Estimated number of PLWH (aware, non-AIDS) who received the specified HIV primary medical care services through private care in a 12-month period.	3,177	в х		
D4. Number of PLWH (aware, non-AIDS) who received the specified HIV primary medical care services from public sources in 12- month period	9,063			
D5. Number of PLWH (aware, non-AIDS) with met need for HIV primary medical care in a 12-month period.	12,240	E	D3 + D4 (or 9063 + 3177.225)	
Calculated Results	Value		Calculation	
E. Number of PLWA who did not receive specified HIV primary medical care services	9,992	А	- C5 (or 21793 - 11801.425)	
F. Number of PLWH (aware, non-AIDS) who did not receive specified HIV primary medical care services	1,881	В	- D5 (or 14121 - 12240.225)	
G. Total HIV+/aware not receiving specified HIV primary medical care services (quantified estimate of unmet need)	11,872	Е	+ F (or 9991.575 + 1880.775)	

Of the 35914 people estimated to be living with HIV/AIDS in the jurisdiction, we estimate that

24041.65 (or 67%) received HIV primary medical care during the specified time period, while 11872.35 (or 33%) demonstrated unmet need for HIV primary medical care. Among the 21793 people with AIDS, 9991.575 (or 46%) had unmet need, and among the 14121 people with HIV (non-AIDS), 1880.775 (or 13%) had unmet need.

PENNSYLVANIA DEPARTMENT OF HEALTH INTEGRATED EPIDEMIOLOGIC PROFILE OF HIV/ AIDS IN PENNSYLVANIA 2009 – 2010

APPENDIX 1

COALITION PROFILES



Appendix 1.A HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in the AACO Service Region/Coalition Area of Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in the AACO service region, the number of cases in 2008 was disproportionately greater for males (70%) followed by females (30%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: blacks had almost two thirds (63%) of all prevalent (living) HIV (including AIDS) cases by the end of 2008 although they account for only 21% of the jurisdiction's population, followed by Hispanics with 11% of prevalent HIV cases although they account for 5% of the jurisdiction's population; whites had 25% of cases and accounted for 69% of the jurisdiction's population, and Asian/Pacific Islanders had 1% of cases and accounted for <2% of the jurisdiction's population.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (38%), followed by over 49 years (34%), 30-39 years (18%), 20-29 years (9%), 13-19 years (1%) and pediatric (0-12 years) (0%).
- Within the jurisdiction [which had 64% (the greatest proportion) of prevalent Pennsylvania HIV cases in 2008], Philadelphia County had the greatest proportion of prevalent HIV cases (83%), followed by Delaware (7%), Montgomery (5%), Bucks (3%), and Chester (2%).
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is heterosexual contact with 34% (which increased from 25% in 2003), followed by MSM with 30% (which remained steady since 2003), and IDU with 27% (which decreased from 36% in 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 61% of prevalent cases; followed by those capable of transmitting HIV through male-to-male sexual contact (aggregating those who may have acquired HIV through MSM and MSM-IDU) accounting for 34% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU and MSM-IDU) accounting for 31% of prevalent cases in 2008.

TABLE 28 HIV^ IN PENNSYLVANIA

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

AIDS ACTIVITIES COORDINATING OFFICE

BUCKS, CHESTER, DELAWARE, MONTGOMERY, PHILADELPHIA COUNTIES

DEMOGRAPHIC CHAR	ACTERISTICS	2	.003	2	004	20	005	20	006	2	007	2	008
		number	percent	number	percent								
	TOTAL	11284	100	12391	. 100	13997	100	16346	100	17953	3 100	19525	5 100
SEX	MALE	8045	5 71	8781	. 71	9834	70	11400	70	12542	1 70	13653	3 70
	FEMALE	3239	29	3610	29	4163	30	4946	30	5412	2 30	5872	2 30
RACE/ETHNICITY	WHITE (NON-HISP)	2804	25	3113	25	3443	25	4105	25	4578	8 25	4958	3 25
	BLACK (NON-HISP)	7162	. 63	7857	63	8924	64	10355	63	11294	4 63	12251	1 63
	HISPANIC	1266	5 11	1363	11	1551	. 11	1768	11	1935	5 11	. 2121	1 11
	ASIAN/PACIFIC ISL.	46	5 O	50	0	64	0	88	1	109	91	. 129	9 1
	NATIVE AMERICAN	3	8 0	5	0	10) 0	20	0	26	5 C	29	90
	UNKNOWN/MULTIRACE	3	8 0	3	0	5	0	10	0	11	1 C	37	7 0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	159) 1	. 134	1	117	' 1	95	1	72	2 0	53	3 0
GIVEN YEAR)	13-19	99) 1	. 141	. 1	183	1	249	2	266	51	. 281	1 1
	20-29	666	6 6	769	6	967	7	1268	8	1452	2 8	1689	9 9
	30-39	3155	5 28	3130	25	3267	23	3485	21	3549	9 20	3545	5 18
	40-49	4522	. 40	5009	40	5637	40	6471	40	6929	9 39	7341	1 38
	OVER 49	2683	3 24	3208	26	3826	5 27	4778	29	5685	5 32	6616	5 34
MODE OF	MEN SEX W/MEN (MSM)	3355	5 30	3662	. 30	4128	29	4874	30	5407	7 30	5903	3 30
TRANSMISSION	INJECTION DRUG (IDU)	4087	36	4295	35	4527	32	4943	30	5166	5 29	5324	4 27
	MSM & IDU	523	5 5	544	4	576	i 4	640	4	680) 4	705	5 4
	COAGULATION DIS	13	8 0	13	0	13	0	15	0	16	6 C	16	5 0
	HETERO CONTACT	2859	25	3368	27	4135	30	5178	32	5920) 33	6707	7 34
	TRANSFUSION	21	. 0	23	0	23	0	26	0	27	7 C	28	30
	UNKNOWN/OTHER	172	2 2	223	2	307	2	375	2	438	82	530) 3
	ALL PEDIATRIC *	254	2	263	2	288	2	295	2	299	92	312	2 2
COUNTIES	BUCKS	270) 2	306	2	353	3	467	3	527	7 3	582	2 3
	CHESTER	240) 2	282	2	311	. 2	378	2	429	92	460) 2
	DELAWARE	544	l 5	638	5	786	6	1066	7	1234	47	1365	57
	MONTGOMERY	402	2 4	479	4	512	. 4	672	4	794	4 4	884	4 5
	PHILADELPHIA	9828	8 87	10686	86	12035	86	13763	84	14969	9 83	16234	4 83
Percentages may not	add to 100% due to rounding										Cases repo	orted as of	06/30/2009

Percentages may not add to 100% due to rounding

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

HIV Prevalence Supplement to the Integrated Epidemiologic Profile of

HIV/AIDS in Pennsylvania (in support of prevention and care)

HIV/AIDS Investigations-Bureau of Epidemiology

Pennsylvania Department of Health

Appendix 1.B HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in the AIDSNET Service Region/Coalition Area of Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in the AIDSNET service region, the number of cases in 2008 was disproportionately greater for males (64%) followed by females (36%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: Hispanics had almost two-fifths (40%) of all prevalent (living) HIV (incl. AIDS) cases by the end of 2008 although they account for only 8% of the jurisdiction's population, followed by blacks with 21% of prevalent HIV cases although they account for 3% of the jurisdiction's population; whites had 38% of cases and accounted for 87% of the jurisdiction's population, and Asian/Pacific Islanders had 0% of cases and accounted for <2% of the jurisdiction's population.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (40%), followed by over 49 years (33%), 30-39 years (19%), 20-29 years (6%), 13-19 years (1%) and pediatric (0-12 years) (1%).
- Within the jurisdiction [which had 8% of prevalent Pennsylvania HIV cases in 2008], Berks County had the greatest proportion of prevalent HIV cases (36%), followed by Lehigh (32%) Northampton (17%), Monroe (9%), Schuylkill (5%) and Carbon (2%).
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is IDU with 31% (which decreased from 40% in 2003), followed by heterosexual contact with 23% (which increased from 19% since 2003), and MSM with 19% (which slightly increased from 18% in 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 54% of prevalent cases; followed by those capable of transmitting HIV through male-to-male sexual contact (aggregating those who may have acquired HIV through MSM and MSM-IDU) accounting for 22% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through or 34% of prevalent cases in 2008.

TABLE 29 HIV^ IN PENNSYLVANIA

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

AIDSNET

BERKS, CARBON, LEHIGH, MONROE, NORTHAMPTON, SCHUYLKILL COUNTIES

DEMOGRAPHIC CHAR	ACTERISTICS	20	03	2	004	20	05	20	006	20	007	2	008
		number	percent	number	percent								
	TOTAL	139	5 100	1596	100	1770	100	2154	100	2336	100	2477	100
SEX	MALE	89	2 64	1014	64	1120	63	1371	64	1487	64	1582	64
	FEMALE	50	4 36	582	36	650	37	783	36	849	36	895	36
RACE/ETHNICITY	WHITE (NON-HISP)	50	7 36	607	38	665	38	820	38	892	. 38	949	38
	BLACK (NON-HISP)	27) 19	309	19	358	20	440	20	485	21	520	21
	HISPANIC	61	3 44	674	42	741	42	884	41	947	41	995	40
	ASIAN/PACIFIC ISL.		5 0	4	0	4	C	6	0	6	0	6	0
	NATIVE AMERICAN		1 0	2	0	2	C	2	0	2	0	2	0
	UNKNOWN/MULTIRACE) 0	0	0	0	C	2	0	4	. 0	5	0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	1	1 1	12	. 1	11	1	. 10	0	10	0	7	0
GIVEN YEAR)	13-19		3 1	10	1	16	1	. 20	1	22	. 1	27	1
	20-29	9) 6	106	5 7	104	6	136	6	145	6	157	6
	30-39	43	5 31	440	28	448	25	498	23	489	21	474	19
	40-49	59	5 43	691	43	772	44	911	42	966	41	1002	40
	OVER 49	25	5 18	337	21	419	24	579	27	704	30	810	33
MODE OF	MEN SEX W/MEN (MSM)	25) 18	284	- 18	324	18	406	19	437	19	474	19
TRANSMISSION	INJECTION DRUG (IDU)	55	3 40	593	37	627	35	711	33	738	32	759	31
	MSM & IDU	5	2 4	58	4	63	4	70	3	75	3	81	3
	COAGULATION DIS	1	4 1	15	1	16	1	. 16	1	15	1	15	1
	HETERO CONTACT	26	9 19	314	20	329	19	434	20	525	22	580	23
	TRANSFUSION		3 1	8	1	9	1	. 12	1	15	1	15	1
	UNKNOWN/OTHER	22	5 16	298	19	372	21	. 470	22	493	21	513	21
	ALL PEDIATRIC *	2) 1	26	2	30	2	35	2	38	2	40	2
COUNTIES	BERKS	58	9 42	628	39	650	37	783	36	839	36	883	36
	CARBON	1	51	22	1	25	1	. 33	2	36	2	38	2
	LEHIGH	41	2 30	473	30	564	32	665	31	732	31	783	32
	MONROE	9	2 7	118	5 7	137	8	8 187	9	208	9	224	9
	NORTHAMPTON	20	5 15	259	16	289	16	368	17	396	17	415	17
	SCHUYLKILL	8	2 6	96	6	105	6	118	5	125	5	134	5
Percentages may not	add to 100% due to rounding										Cases rep	orted as of	06/30/2009

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

HIV Prevalence Supplement to the Integrated Epidemiologic Profile of

HIV/AIDS in Pennsylvania (in support of prevention and care)

HIV/AIDS Investigations-Bureau of Epidemiology

Pennsylvania Department of Health

Appendix 1.C

HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in the NorthCentral Service Region/Coalition Area of Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in Northcentral service region, the number of cases in 2008 was disproportionately greater for males (74%) followed by females (26%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: blacks had (36%) of all prevalent (living) HIV (including AIDS) cases by the end of 2008 although they account for only 2% of the jurisdiction's population, followed by Hispanics with 12% of prevalent HIV cases although they account for 1% of the jurisdiction's population; whites had 52% of cases and accounted for 95% of the jurisdiction's population, and Asian/Pacific Islanders had 1% of cases and accounted for <1% of the jurisdiction's population;.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (41%), followed by over 49 years (35%), 30-39 years (18%), 20-29 years (6%), 13-19 years (0%) and pediatric (0-12 years) (0%).
- Within the jurisdiction [which had 2% of prevalent Pennsylvania HIV cases in 2008], Lycoming County had the greatest proportion of prevalent HIV cases (35%), followed by Centre (17%), Union (16%), Northumberland (11%), Columbia (6%), Bradford (5%), Clinton, Montour, Snyder and Tioga tied at (2%); Potter and Sullivan tied at (1%).
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is IDU with 32% (which decreased from 46% in 2003), followed by MSM with 30% (which increased from 26% since 2003), and heterosexual contact with 19% (which increased from 12% in 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 51% of prevalent cases; followed by those capable of transmitting HIV through male-to-male sexual contact (aggregating those who may have acquired HIV through MSM and MSM-IDU) accounting for 35% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU and MSM-IDU) accounting for 37% of prevalent cases in 2008.

TABLE 30HIV^ IN PENNSYLVANIA

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

NORTHCENTRAL PA AIDS PLANNING COALITION

BRADFORD, CENTRE, CLINTON, COLUMBIA, LYCOMING, MONTOUR, NORTHUMBERLAND, POTTER, SNYDER, SULLIVAN, TIOGA, UNION COUNTIES

DEMOGRAPHIC CHARA	CTERISTICS	20	003	20)04	20)05	20	006	20	007	20	008
		number	percent										
	TOTAL	381	. 100	491	100	541	100	646	100	716	100	751	100
SEX	MALE	290	76	358	73	404	75	475	74	526	73	552	74
	FEMALE	91	. 24	133	27	137	25	171	26	190	27	199	26
RACE/ETHNICITY	WHITE (NON-HISP)	179	47	240	49	256	47	326	50	367	51	. 388	52
	BLACK (NON-HISP)	156	41	195	40	221	41	242	37	266	37	272	36
	HISPANIC	43	11	53	11	61	11	75	12	80	11	. 87	12
	ASIAN/PACIFIC ISL.	3	1	3	1	3	1	3	0	3	0	4	1
	NATIVE AMERICAN	C	0	0	0	0	0	1	0	0	0	0	0
	UNKNOWN/MULTIRACE	C	0	0	0	0	0	0	0	0	0	0	0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	1	. 0	0	0	0	0	0	0	2	0	1	0
GIVEN YEAR)	13-19	3	1	4	1	2	0	4	1	3	0	3	0
	20-29	20	5	38	8	43	8	50	8	50	7	48	6
	30-39	104	27	133	27	118	22	141	22	146	20	132	18
	40-49	173	45	212	43	246	45	283	44	287	40	305	41
	OVER 49	80	21	104	21	132	24	167	26	228	32	262	35
MODE OF	MEN SEX W/MEN (MSM)	98	26	138	28	157	29	197	30	220	31	226	30
TRANSMISSION	INJECTION DRUG (IDU)	174	46	202	41	0	0	231	36	239	33	240	32
	MSM & IDU	34	. 9	35	7	214	40	36	6	36	5	38	5
	COAGULATION DIS	5	1	5	1	36	7	5	1	6	1	. 6	1
	HETERO CONTACT	46	12	56	11	5	1	82	13	119	17	143	19
	TRANSFUSION	2	1	4	1	61	11	4	1	4	- 1	. 4	1
	UNKNOWN/OTHER	20	5	49	10	4	1	87	13	87	12	. 89	12
	ALL PEDIATRIC *	2	1	2	0	62	11	4	1	5	1	. 5	1
COUNTIES	BRADFORD	16	4	17	3	2	0	28	4	33	5	35	5
	CENTRE	69	18	78	16	18	3	100	15	118	16	129	17
	CLINTON	3	1	6	1	84	16	10	2	12	2	. 15	2
	COLUMBIA	25	7	30	6	5	1	43	7	46	6	46	6
	LYCOMING	129	34	187	38	33	6	224	35	249	35	261	35
	MONTOUR	5	1	9	2	193	36	9	1	14	. 2	. 14	2
	NORTHUMBERLAND	45	12	54	11	9	2	72	11	78	11	. 84	11
	POTTER	2	1	2	0	56	10	3	0	4	- 1	. 4	1
	SNYDER	11	. 3	12	2	3	1	16	2	16	2	. 18	2
	SULLIVAN	4	- 1	5	1	13	2	6	1	7	1	. 7	1
	TIOGA	6	2	10	2	6	1	17	3	18	3	18	2
	UNION	66	17	81	16	11	2	118	18	121	. 17	120	16

Percentages may not add to 100% due to rounding

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

HIV Prevalence Supplement to the Integrated Epidemiologic Profile of

HIV/AIDS in Pennsylvania (in support of prevention and care)

HIV/AIDS Investigations-Bureau of Epidemiology

Pennsylvania Department of Health

Cases reported as of 06/30/2009

Appendix 1.D HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in the NorthEast Service Region/Coalition Area of Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in the Northeast service region, the number of cases in 2008 was disproportionately greater for males (74%) followed by females (26%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: blacks had (23%) of all prevalent (living) HIV (including AIDS) cases by the end of 2008 although they account for only <2% of the jurisdiction's population, followed by Hispanics with 13% of prevalent HIV cases although they account for <2% of the jurisdiction's population; whites had 62% of cases and accounted for 96% of the jurisdiction's population, and Asian/Pacific Islanders had 0% of cases and accounted for <1% of the jurisdiction's population.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (39%), followed by over 49 years (33%), 30-39 years (7%), 20-29 years (8%), 13-19 years (2%) and pediatric (0-12 years) (0%).
- Within the jurisdiction [which had 2% of prevalent Pennsylvania HIV cases in 2008], Luzerne County had the greatest proportion of prevalent HIV cases (42%), followed by Lackawanna (32%), Wayne (11%), Pike (9%), Susquehanna (3%) and Wyoming (2%).
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is tied between MSM and IDU with 26% (which both decreased from 36% in 2003 for IDU and from 30% in 2003 for MSM), and heterosexual contact with 23% (which increased from 13% in 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 49% of prevalent cases; followed by those capable of transmitting HIV through male-to-male sexual contact (aggregating those who may have acquired HIV through MSM and MSM-IDU) accounting for 31% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU and MSM-IDU) accounting for 31% of prevalent cases in 2008.

TABLE 31 **HIV^ IN PENNSYLVANIA**

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

NORTHEAST REGIONAL HIV PLANNING COALITION

LACKAWANNA, LUZERNE, PIKE, SUSQUEHANNA, WAYNE, WYOMING COUNTIES

DEMOGRAPHIC CHAR	ACTERISTICS	20	03	20)04	20	005	20	006	20	007	20	008
		number	percent	number	percent								
	TOTAL	336	100	426	100	490	100	605	100	659	100	713	100
SEX	MALE	253	75	324	76	363	74	455	75	484	- 73	525	74
	FEMALE	83	25	102	24	127	26	150	25	175	27	188	26
RACE/ETHNICITY	WHITE (NON-HISP)	219	65	273	64	319	65	384	63	416	63	445	62
	BLACK (NON-HISP)	66	20	88	21	100	20	139	23	153	23	167	23
	HISPANIC	51	15	64	15	70	14	79	13	85	13	96	13
	ASIAN/PACIFIC ISL.	0	0	1	0	1	. 0	2	0	2	0	2	0
	NATIVE AMERICAN	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN/MULTIRACE	0	0	0	0	0	0	1	0	3	0	3	0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	4	1	3	1	3	1	5	1	4	- 1	3	0
GIVEN YEAR)	13-19	3	1	6	1	8	2	10	2	12	2	13	2
	20-29	19	6	20	5	27	6	39	6	49	7	58	8
	30-39	94	28	116	27	131	27	127	21	121	. 18	121	17
	40-49	145	43	180	42	204	42	262	43	276	42	281	39
	OVER 49	71	21	101	24	117	24	162	27	197	30	237	33
MODE OF	MEN SEX W/MEN (MSM)	101	30	123	29	136	28	159	26	165	25	183	26
TRANSMISSION	INJECTION DRUG (IDU)	121	36	148	35	151	31	169	28	175	27	182	26
	MSM & IDU	23	7	26	6	26	5	29	5	31	. 5	34	5
	COAGULATION DIS	5	1	6	1	6	1	6	1	6	1	6	1
	HETERO CONTACT	44	13	56	13	73	15	99	16	137	21	162	23
	TRANSFUSION	1	0	1	0	2	0	3	0	3	0	3	0
	UNKNOWN/OTHER	32	10	57	13	87	18	127	21	129	20	130	18
	ALL PEDIATRIC *	9	3	9	2	9	2	13	2	13	2	13	2
COUNTIES	LACKAWANNA	129	38	152	36	174	36	204	34	219	33	231	32
	LUZERNE	122	36	162	38	191	. 39	241	40	274	42	301	42
	PIKE	26	8	34	8	38	8	53	9	59	9	65	9
	SUSQUEHANNA	11	3	13	3	16	3	21	3	21	. 3	22	3
	WAYNE	38	11	54	13	60	12	72	12	72	11	79	11
	WYOMING	10	3	11	3	11	. 2	14	2	14	2	15	2
Percentages may not	add to 100% due to rounding										Cases rep	orted as of	06/30/2009

Percentages may not add to 100% due to rounding

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

HIV Prevalence Supplement to the Integrated Epidemiologic Profile of

HIV/AIDS in Pennsylvania (in support of prevention and care)

HIV/AIDS Investigations-Bureau of Epidemiology Pennsylvania Department of Health

Appendix 1.E HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in the NorthWest Service Region/Coalition Area of Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in the Northwest service region, the number of cases in 2008 was disproportionately greater for males (75%) followed by females (25%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: blacks had (29%) of all prevalent (living) HIV (including AIDS) cases by the end of 2008 although they account for only <1% of the jurisdiction's population, followed by Hispanics with 12% of prevalent HIV cases although they account for <1% of the jurisdiction's population; whites had 59% of cases and accounted for 98% of the jurisdiction's population, and Asian/Pacific Islanders had 0% of cases and accounted for <1% of the jurisdiction.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (42%), followed by over 49 years (29%), 30-39 years (20%), 20-29 years (7%), 13-19 years (0%) and pediatric (0-12 years) (0%).
- Within the jurisdiction [which had 2% of prevalent Pennsylvania HIV cases in 2008], Erie County had the greatest proportion of prevalent HIV cases (46%), followed by Mercer and Crawford (10%), Clearfield (9%), Lawrence (6%), McKean, Venango, Warren tied at 4% and Clarion, Elk, Forest, Jefferson tied at (2%); Cameron which had no cases till 2005 (0%).
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is MSM with 35% (which remained relatively steady at 35-36%), followed by IDU with 22% (which decreased from 27% since 2003), and heterosexual contact with 21% (which remained relatively steady at 20-21% since 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 43% of prevalent cases; followed by those capable of transmitting HIV through male-to-male sexual contact (aggregating those who may have acquired HIV through MSM and MSM-IDU) accounting for 42% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU accounting for 42% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU and MSM-IDU) accounting for 42% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU and MSM-IDU) accounting for 29% of prevalent cases in 2008.

TABLE 32HIV^ IN PENNSYLVANIA

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

NORTHWEST PA RURAL AIDS PLANNING COALITION REGION

CAMERON, CLARION, CLEARFIELD, CRAWFORD, ELK, ERIE, FOREST, JEFFERSON, LAWRENCE, MCKEAN, MERCER, VENANGO, WARREN COUNTIES

DEMOGRAPHIC CHARA	ACTERISTICS	20	03	20	004	20	05	20	06	20	07	20	08
		number	percent										
	TOTAL	415	100	480	100	506	100	574	100	622	100	645	100
SEX	MALE	322	78	367	76	380	75	432	75	463	74	481	75
	FEMALE	93	22	113	24	126	25	142	25	159	26	164	25
RACE/ETHNICITY	WHITE (NON-HISP)	227	55	268	56	285	56	334	58	362	58	379	59
	BLACK (NON-HISP)	132	32	148	31	153	30	167	29	182	29	184	29
	HISPANIC	52	13	59	12	63	12	68	12	73	12	77	12
	ASIAN/PACIFIC ISL.	3	1	3	1	3	1	3	1	3	0	3	0
	NATIVE AMERICAN	1	0	1	. 0	1	0	1	0	1	0	1	0
	UNKNOWN/MULTIRACE	0	0	1	0	1	0	1	0	1	0	1	0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	2	0	2	0	2	0	3	1	4	1	3	0
GIVEN YEAR)	13-19	0	0	0	0	2	0	1	0	1	0	3	0
	20-29	32	8	38	8	39	8	44	8	51	8	46	7
	30-39	143	34	138	29	134	26	136	24	136	22	131	20
	40-49	173	42	209	44	220	43	246	43	262	42	273	42
	OVER 49	65	16	93	19	109	22	144	25	168	27	189	29
MODE OF	MEN SEX W/MEN (MSM)	151	36	172	36	180	36	199	35	217	35	227	35
TRANSMISSION	INJECTION DRUG (IDU)	114	27	124	26	129	25	132	23	140	23	141	22
	MSM & IDU	39	9	44	. 9	44	9	45	8	45	7	47	7
	COAGULATION DIS	3	1	2	0	2	0	2	0	2	0	2	0
	HETERO CONTACT	81	20	94	20	103	20	111	19	127	20	135	21
	TRANSFUSION	1	0	1	0	1	0	1	0	1	0	1	0
	UNKNOWN/OTHER	20	5	35	7	39	8	75	13	80	13	82	13
	ALL PEDIATRIC *	6	1	8	2	8	2	9	2	10	2	10	2
COUNTIES	CAMERON	0	0	0	0	1	0	1	0	1	0	2	0
	CLARION	7	2	10	2	12	2	14	2	16	3	16	2
	CLEARFIELD	38	9	48	10	48	9	56	10	57	9	60	9
	CRAWFORD	34	8	43	9	45	9	55	10	58	9	62	10
	ELK	2	0	3	1	3	1	5	1	9	1	10	2
	ERIE	219	53	239	50	251	50	266	46	289	46	294	46
	FOREST	5	1	5	1	7	1	11	2	12	2	13	2
	JEFFERSON	12	3	12	3	12	2	13	2	14	2	16	2
	LAWRENCE	24	6	24	5	25	5	31	5	36	6	37	6
	MCKEAN	19	5	19	4	20	4	24	4	24	4	24	4
	MERCER	36	9	50	10	52	10	60	10	63	10	64	10
	VENANGO	10	2	12	3	14	3	19	3	22	4	24	4
	WARREN	9	2	15	3	16	3	19	3	21	3	23	4

Percentages may not add to 100% due to rounding

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

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HIV/AIDS in Pennsylvania (in support of prevention and care)

HIV/AIDS Investigations-Bureau of Epidemiology

Pennsylvania Department of Health

Cases reported as of 06/30/2009

Appendix 1.F HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in the SouthCentral Service Region/Coalition Area of Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in the Southcentral service region, the number of cases in 2008 was disproportionately greater for males (70%) followed by females (30%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: blacks had (27%) of all prevalent (living) HIV (incl. AIDS) cases by the end of 2008 although they account for only 3% of the jurisdiction's population, followed by Hispanics with 19% of prevalent HIV cases although they account for 6% of the jurisdiction's population; whites had 54% of cases and accounted for 89% of the jurisdiction's population, and Asian/Pacific Islanders had 0% of cases and accounted for <2% of the jurisdiction's population.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (40%), followed by over 49 years (34%), 30-39 years (19%), 20-29 years (6%), 13-19 years (1%) and pediatric (0-12 years) (0%).
- Within the jurisdiction [which had 11% of prevalent Pennsylvania HIV cases in 2008], Dauphin County had the greatest proportion of prevalent HIV cases (27%), followed by Lancaster (22%), York (21%), Cumberland (12%), Lebanon (4%), Blair, Franklin, Huntingdon at (3%), Adams (2%), Bedford and Perry (1%), and Juniata and Mifflin (0%).
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is MSM with 33% (which increased from 30% in 2003), followed by IDU and heterosexual contact with 25% (IDU decreased from 31% since 2003, heterosexual contact increased from 23% in 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 50% of prevalent cases; followed by those capable of transmitting HIV through MSM and MSM-IDU) accounting for 36% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU) accounting for 28% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU) accounting for 28% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU) accounting for 28% of prevalent cases in 2008.

TABLE 33 HIV^ IN PENNSYLVANIA

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

SOUTHCENTRAL PA AIDS PLANNING COALITION

ADAMS, BEDFORD, BLAIR, CUMBERLAND, DAUPHIN, FRANKLIN, FULTON, HUNTINGDON, JUNIATA, LANCASTER, LEBANON, MIFFLIN, PERRY, YORK COUNTIES

DEMOGRAPHIC CHARACTERISTICS		20	2003		004	20	005	20	006	20	007	2	008
		number	percent	number	percent								
	TOTAL	2120) 100	2404	100	2602	100	2933	100	3109	100	3290	100
SEX	MALE	1463	8 69	1663	69	1798	69	2045	70	2170	70	2297	70
	FEMALE	657	7 31	741	31	804	31	888	30	939	30	993	30
RACE/ETHNICITY	WHITE (NON-HISP)	1132	2 53	1303	54	1411	54	1611	55	1699	55	1785	54
	BLACK (NON-HISP)	574	1 27	638	27	691	27	757	26	813	26	872	27
	HISPANIC	408	3 19	456	19	493	19	556	19	588	19	621	19
	ASIAN/PACIFIC ISL.	4	1 0	5	0	5	0	6	0	6	0	8	0
	NATIVE AMERICAN	2	2 0	2	0	2	0	2	0	2	0	2	0
	UNKNOWN/MULTIRACE	() (0	0	0	0	1	0	1	. 0	2	0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	10) (8	0	6	0	8	0	6	0	6	0
GIVEN YEAR)	13-19	16	5 1	19	1	24	1	26	1	24	1	22	1
	20-29	129	96	152	6	163	6	190	6	196	6	194	6
	30-39	607	7 29	646	27	647	25	680	23	648	21	628	19
	40-49	893	3 42	988	41	1070	41	1176	40	1258	40	1313	40
	OVER 49	465	5 22	591	25	692	27	853	29	977	31	1127	34
MODE OF	MEN SEX W/MEN (MSM)	641	L 30	755	31	821	32	965	33	1024	33	1081	33
TRANSMISSION	INJECTION DRUG (IDU)	658	3 31	691	29	732	28	795	27	813	26	833	25
	MSM & IDU	86	5 4	98	4	101	4	106	4	109	4	115	3
	COAGULATION DIS	18	3 1	17	1	17	1	17	1	17	1	17	1
	HETERO CONTACT	491	L 23	558	23	598	23	673	23	745	24	810	25
	TRANSFUSION	8	3 0	8	0	9	0	9	0	10	0	10	0
	UNKNOWN/OTHER	190) 9	246	10	291	11	329	11	349	11	382	12
	ALL PEDIATRIC *	28	3 1	31	1	33	1	39	1	42	1	42	1
COUNTIES	ADAMS	26	5 1	34	1	36	1	44	2	51	2	54	2
	BEDFORD	10) (12	0	18	1	19	1	21	. 1	22	1
	BLAIR	50) 2	62	3	66	3	78	3	87	3	91	3
	CUMBERLAND	292	2 14	319	13	337	13	367	13	379	12	390	12
	DAUPHIN	630) 30	682	28	715	27	801	27	840	27	890	27
	FRANKLIN	58	3 3	76	3	87	3	100	3	105	3	112	3
	FULTON	4	1 O	4	0	5	0	6	0	10	0	9	0
	HUNTINGDON	64	1 3	70	3	73	3	85	3	90	3	93	3
	JUNIATA	7	7 0	9	0	10	0	12	0	12	0	13	0
	LANCASTER	456	5 22	537	22	587	23	654	22	689	22	740	22
	LEBANON	87	7 4	91	4	94	4	112	4	123	4	129	4
	MIFFLIN	9	9 0	14	1	13	0	15	1	15	0	15	0
	PERRY	17	7 1	23	1	26	1	31	1	33	1	33	1
	YORK	410) 19	471	20	535	21	609	21	654	21	699	21
Percentages may not	add to 100% due to rounding										Cases re	ported as o	f 06/30/2009

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

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Appendix 1.G HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in the SouthWest Service Region/Coalition Area of Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in the Southwest service region, the number of cases in 2008 was disproportionately greater for males (80%) followed by females (20%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: blacks had (39%) of all prevalent (living) HIV (incl. AIDS) cases by the end of 2008 although they account for only <2% of the jurisdiction's population, followed by Hispanics with 3% of prevalent HIV cases although they account for <1% of the jurisdiction's population; whites had 57% of cases and accounted for 97% of the jurisdiction's population, and Asian/Pacific Islanders had 1% of cases and accounted for <1% of the jurisdiction's population.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (40%), followed by over 49 years (33%), 30-39 years (19%), 20-29 years (7%), 13-19 years (1%) and pediatric (0-12 years) (0%).
- Within the jurisdiction [which had 10% of prevalent Pennsylvania HIV cases in 2008], Allegheny County had the greatest proportion of prevalent HIV cases (74%), followed by Westmoreland (5%), Cambria (4%), Beaver and Washington at (3%), Butler, Fayette and Somerset tied at 2% and Armstrong, Greene and Indiana at (1%).
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is MSM with 53% (which decreased from 56% in 2003), followed by heterosexual contact with 21% (which increased from 18% since 2003), and IDU with 13% (which decreased from 16% in 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through male-to-male sexual contact (aggregating those who may have acquired HIV through MSM and MSM-IDU) accounting for 56% of prevalent cases; followed by those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 34% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU) accounting for 16% of prevalent cases in 2008.

TABLE 34HIV^ IN PENNSYLVANIA

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

SOUTHWEST PA AIDS PLANNING COALITION

ALLEGHENY, ARMSTRONG, BEAVER, BUTLER, CAMBRIA, FAYETTE, GREENE, INDIANA, SOMERSET, WASHINGTON, WESTMORELAND COUNTIES

DEMOGRAPHIC CHARACTERISTICS		2	003	2	004	2	005	2	006	20	007	20	008
		number	percent										
	TOTAL	2118	3 100	2297	100	2457	/ 100	2711	. 100	2876	100	3078	100
SEX	MALE	1698	3 80	1839	80	1963	80	2157	80	2288	80	2452	80
	FEMALE	420) 20	458	20	494	20	554	20	588	20	626	20
RACE/ETHNICITY	WHITE (NON-HISP)	1222	2 58	1318	57	1406	5 57	1559) 58	1655	58	1751	. 57
	BLACK (NON-HISP)	800) 38	875	38	943	38	1040) 38	1094	38	1197	39
	HISPANIC	82	2 4	88	4	91	. 4	93	3	104	4	107	3
	ASIAN/PACIFIC ISL.	13	3 1	. 13	: 1	14	1	. 16	i 1	19	1	19	1
	NATIVE AMERICAN	:	L 0	1	. 0	1	. 0	1	. 0	1	0	1	0
	UNKNOWN/MULTIRACE	() (2	. 0	2	. 0	2	. 0	3	0	3	0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	10) (8	; 0	8	3 0	9) 0	8	0	5	0
GIVEN YEAR)	13-19	(5 0	10) 0	12	. 0	17	' 1	24	1	23	1
	20-29	132	2 6	138	6	142	. 6	166	6	174	6	207	7
	30-39	645	5 30	631	. 27	618	25	618	23	606	21	593	19
	40-49	872	2 41	964	42	1046	i 43	1152	42	1190	41	1220	40
	OVER 49	453	3 21	546	5 24	631	. 26	749	28	874	30	1030	33
MODE OF	MEN SEX W/MEN (MSM)	117	7 56	1258	55	1335	54	1452	. 54	1530	53	1634	53
TRANSMISSION	INJECTION DRUG (IDU)	334	1 16	344	15	355	5 14	380) 14	387	13	398	13
	MSM & IDU	93	L 4	95	4	95	6 4	100) 4	104	4	106	3
	COAGULATION DIS	15	5 1	. 15	1	15	i 1	. 16	i 1	. 16	1	16	1
	HETERO CONTACT	383	L 18	438	19	473	19	527	19	579	20	652	21
	TRANSFUSION	12	2 1	. 12	. 1	12	. 0	13	0	13	0	13	0
	UNKNOWN/OTHER	9:	L 4	118	5	154	6	204	8	228	8	239	8
	ALL PEDIATRIC *	1	7 1	. 17	' 1	18	3 1	. 19) 1	. 19	1	20	1
COUNTIES	ALLEGHENY	1594	1 75	1728	5 75	1841	. 75	2007	74	2134	. 74	2285	74
	ARMSTRONG	22	2 1	. 24	1	24	1	. 28	8 1	28	1	29	1
	BEAVER	7	7 4	83	4	90) 4	98	3 4	103	4	107	3
	BUTLER	39) 2	42	2	45	2	50) 2	55	2	62	2
	CAMBRIA	84	1 4	93	4	101	. 4	118	3 4	125	4	133	4
	FAYETTE	33	3 2	40) 2	44	2	58	2	60	2	68	2
	GREENE	14	ļ 1	. 15	5 1	20) 1	. 23	1 1	. 24	1	24	1
	INDIANA	24	ļ 1	. 27	' 1	30) 1	. 33	1	32	1	34	1
	SOMERSET	58	3 3	61	. 3	64	4 3	66	5 2	69	2	74	2
	WASHINGTON	66	5 3	70) 3	76	5 3	97	4	101	4	106	3
	WESTMORELAND	10	7 5	114	5	122	! 5	133	5	145	5	156	5

Percentages may not add to 100% due to rounding

Cases reported as of 06/30/2009

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

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Appendix 1.H HIV Service Region/Coalition Area Mini-Profile Trends in Demographic and Risk Characteristics of Prevalent HIV (including AIDS) Cases in Pennsylvania

- Among all prevalent HIV (incl. AIDS) cases in the state of Pennsylvania from 2003-2008, the number of cases were disproportionately greater for males (71%) followed by females (29%).
- Across the jurisdiction, the epidemic disproportionately impacted racial/ethnic minorities particularly blacks and Hispanics: blacks had more than half (51%) of all prevalent (living) HIV (incl. AIDS) cases by the end of 2008 although they account for only 10% of the jurisdiction's population, followed by Hispanics with 13% of prevalent HIV cases although they account for 4% of the jurisdiction's population; whites had 35% of cases and accounted for 85% of the jurisdiction's population, and Asian/Pacific Islanders had 1% of cases and accounted for <1% of the jurisdiction's population.</p>
- Prevalent HIV cases in 2008 were mostly diagnosed in the 40-49 year age group (39%), followed by over 49 years (34%), 30-39 years (18%), 20-29 years (8%), 13-19 years (1%) and pediatric (0-12 years) (1%).
- The greatest burden of prevalent HIV cases was in the southern part of the state which accounted for 93% of the all cases in 2008. The HIV service coalition region that had the greatest proportion of prevalent HIV cases in 2008 was AACO (64%), followed by South-central (11%), Southwest (10%), AIDSNET (8%), and tied at 2% is North central, Northwest and Northeast.
- Among behavioral risk groups, the greatest proportion of prevalent HIV cases in 2008 was among those whose probable mode of acquiring HIV is MSM with 32% (which remained steady from 2003), followed by heterosexual contact with 30% (which increased from 23% in 2003), and IDU with 26% (which decreased from 33% in 2003). To provide insight for prioritization of prevention of HIV transmission from prevalent (living) cases ("prevention for positives"), the largest reservoir of potential sources of HIV transmission consists of those capable of transmitting HIV through heterosexual contact (aggregating those who may have acquired HIV through IDU and hetero contact) accounting for 56% of prevalent cases; followed by those capable of transmitting HIV through male-to-male sexual contact (aggregating those who may have acquired HIV through MSM and MSM-IDU) accounting for 36% of prevalent cases; and those capable of transmitting HIV through IDU (aggregating those who may have acquired HIV through IDU and MSM-IDU) accounting for 30% of prevalent cases in 2008.

Table 35 HIV^ IN PENNSYLVANIA

TRENDS OF NO. PERSONS LIVING WITH HIV (INCLUDING AIDS) AT THE END OF EACH YEAR: 2003-2008

DEMOGRAPHIC CHAR	ACTERISTICS	20	03	20	004	20)05	20	006	20	007	2	.008
		number	percent										
	TOTAL	18050	100	20085	100	22363	100	25969	100	28271	100	30479	9 100
SEX	MALE	12963	72	14346	71	15862	71	18335	71	19959	71	21542	2 71
	FEMALE	5087	28	5739	29	6501	29	7634	29	8312	29	8937	7 29
RACE/ETHNICITY	WHITE(NON-HISP)	6290	35	7122	35	7785	35	9139	35	9969	35	10655	5 35
	BLACK (NON-HISP)	9160	51	10110	50	11390	51	13140	51	14287	51	15463	3 51
	HISPANIC	2515	14	2757	14	3070	14	3523	14	3812	13	4104	1 13
	ASIAN/PACIFIC ISL.	74	0	79	0	94	0	124	0	148	1	171	L 1
	NATIVE AMERICAN	8	0	11	. 0	16	0	26	0	32	0	35	5 0
	UNKNOWN/MULTIRACE	3	0	6	0	8	0	17	0	23	0	53	L 0
CURRENT AGE (IN A	0-12 (PEDIATRIC)	197	1	167	1	147	1	131	. 1	106	0	78	30
GIVEN YEAR)	13-19	135	1	190	1	247	1	327	1	352	1	372	2 1
	20-29	1088	6	1261	. 6	1485	7	1893	7	2117	7	2399	9 8
	30-39	5184	29	5234	26	5363	24	5685	22	5695	20	5624	1 18
	40-49	7373	41	8253	41	9195	41	10501	40	11168	40	1173	5 39
	OVER 49	4073	23	4980	25	5926	26	7432	29	8833	31	10271	L 34
MODE OF	MEN SEX W/MEN (MSM)	5773	32	6392	32	7081	32	8252	32	9000	32	9728	3 32
TRANSMISSION	INJECTION DRUG (IDU)	6046	33	6397	32	6735	30	7361	28	7658	27	787	7 26
	MSM & IDU	848	5	900	4	941	. 4	1026	4	1080	4	1126	5 4
	COAGULATION DIS	73	0	73	0	74	0	77	0	78	0	78	30
	HETERO CONTACT	4171	23	4884	24	5772	26	7104	27	8152	29	9189	9 30
	TRANSFUSION	53	0	57	0	60	0	68	0	73	0	74	1 0
	UNKNOWN/OTHER	750	4	1026	5	1312	6	1667	6	1804	6	1965	56
	ALL PEDIATRIC *	336	2	356	2	388	2	414	2	426	2	442	2 1
COALITION	AACO	11284	63	12391	. 62	13997	63	16346	63	17953	64	19525	5 64
REGION	AIDSNET	1396	8	1596	8	1770	8	2154	8	2336	8	2477	7 8
	NORTHCENTRAL	381	. 2	491	. 2	541	. 2	646	2	716	3	751	1 2
	NORTHEAST	336	2	426	2	490	2	605	2	659	2	713	3 2
	NORTHWEST	415	2	480	2	506	2	574	2	622	2	645	52
	SOUTHCENTRAL	2120	12	2404	12	2602	12	2933	11	3109	11	3290) 11
	SOUTHWEST	2118	12	2297	11	2457	11	2711	10	2876	10	3078	3 10

Percentages may not add to 100% due to rounding

^Excl. Presumptive diagnoses of HIV

*Includes adult cases which are assigned pediatric modes of transmission since infection is believed to have occurred before age 13

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