21. HIV

Goal

Prevent HIV transmission and associated morbidity and mortality by (1) ensuring that all persons at risk for HIV infection know their serostatus, (2) ensuring that those persons not infected with HIV remain uninfected, (3) ensuring that those persons infected with HIV do not transmit HIV to others, and (4) ensuring that those infected with HIV are accessing the most effective therapies possible.

Terminology

AIDS: Acquired Immune Deficiency Syndrome, the most severe phase of infection with the Human Immunodeficiency Virus (HIV). People infected with HIV are said to have AIDS when they get certain opportunistic infections or when their CD4+ cell count drops below 200.

CD4+ cell count: A type of T cell involved in protecting against viral, fungal and protozoal infections. These cells normally orchestrate the immune response, signaling other cells in the immune system to perform their special functions. CD4+ cells are also known as T helper cells. HIV infection kills CD4+ cells, so their number is a good way to track the progress of an HIV infection. A higher number usually means better health.

HIV: Human Immunodeficiency Virus, the virus that causes AIDS.

Opportunistic infections (OI): Infections that take advantage of the opportunity offered when a person's immune system has been weakened by HIV infection. At least 25 medical conditions, including cancers and bacterial, fungal, and viral infections, are associated with HIV infection.

Serostatus: The result of a blood test for the antibodies that the immune system creates to fight specific diseases.

Seropositive: Indicates that a person's blood contains antibodies to HIV.

Incidence: A measure of the number of new cases reported in a given amount of time, usually within a year. Because HIV infection often is without clear early symptoms, most persons fail to recognize their infection until some period of time has passed, often years. It is estimated that approximately 40,000 new HIV infections occur each year in the United States.

Morbidity: The term often used in the place of illness or disease. In the case of HIV, morbidity is usually measured in illnesses that are part of a group referred to as opportunistic infections.

Mortality: A measure of the number of deaths directly attributed to an HIV infection or AIDS.

Prevalence: A measure of the number of people who are infected, at only one point in time with HIV. Because HIV infection is not a reportable condition in all states, it can only be estimated that the number of persons with HIV infection in the United States ranges from 650,000 to 900,000.

Protease Inhibitor: A drug that prevents HIV protease from working and inhibits the production of viral particles.

Reverse Transcriptase Inhibitor (RTI): The genetic make-up of HIV is in RNA. Once HIV enters a cell it uses the enzyme, reverse transcriptase, in order to construct a version of DNA from its genes. Once the DNA is created, then HIV can proceed in its replication process. Reverse transcriptase inhibitors are drugs that prevent the reverse transcriptase enzyme from working.

Survival Rates: A measure of the time that elapses between a person's infection with HIV and the time of death.

Area Development District (ADD): Kentucky has 120 counties that have been divided into fifteen Area Development Districts for the planning of a variety of programs.

Kentuckiana Regional Planning and Development Agency (KIPDA): An area development district that contains the counties of Jefferson, Shelby, Trimble, Oldham, Henry, Spencer, and Bullitt.

Harm Reduction: Helping individuals maximize their health and potential while simultaneously reducing harm to themselves, their loved ones and their communities. It creates environments and develops strategies for change that are practical, humane and effective.

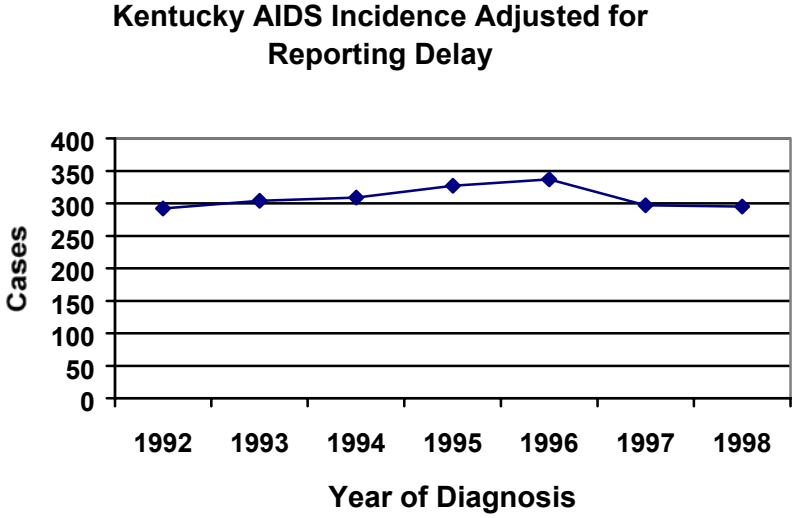
Overview

At the start of the 21st century, HIV and AIDS continue to impact the health of Kentuckians. Since the first AIDS case was reported in 1982, there have been 2970 Kentuckians reported with AIDS of which 1385 are still living. There are 2514 persons living with HIV who have not progressed to AIDS. Data for *Healthy Kentuckians 2010* are current as of June 30, 1999.

According to state regulation 902 KAR 2:020, Section 7, physicians, hospitals, laboratories, counseling and testing sites and health professions licensed under KRS 311-314 are required to report the name, demographics and mode of exposure of AIDS cases to the Department for Public Health within five days of diagnosis. Health providers also are required to report HIV cases; however, only initials identify the name of the HIV case. As a result, duplicates may exist in the data set. Another limitation to the HIV data set is the high number for which the mode of exposure, year of diagnosis, age at diagnosis or race is undetermined. Due to these limitations, AIDS data primarily will be used in this overview as well as in setting the objectives, baselines and targets for *Healthy Kentuckians 2010*.

General Trends

HIV and AIDS remain serious public health problems in Kentucky. The AIDS epidemic, however, has changed in the 1990's. AIDS incidence has declined recently not only in Kentucky but throughout the nation. As presented in the following chart, AIDS incidence increased through 1996, but then dropped 10 percent from 1996 to 1997.



In 1996, the number of Kentucky AIDS deaths declined for the first time. AIDS deaths dropped 29 percent from 1995 to 1996, and AIDS deaths have continued to decline through 1998. This decline in AIDS deaths and incidence is partially due to advances in antiretrovirals and treatments for opportunistic infections. While these treatments have extended the life of many patients as well as lengthened the time from HIV infection to AIDS progression, their prolonged effects are unknown. The success of these treatments usually involves taking many pills a day on a very strict regimen. Strict adherence to

these complex medication schedules is very important because if the schedules are not followed, multi-drug resistant strains of HIV may develop.

Although deaths are declining, AIDS continues to be a leading cause of death for Kentuckians and the entire nation. In 1997, AIDS was the 21st leading cause of death in Kentucky. This is a small step down from 1996 when AIDS was ranked 20th. In 1997, among those ages 25-44, AIDS was the 7th leading cause of death for all Kentuckians and the 4th leading cause of death for African American males. Nationally, in the same 25-44 age group, AIDS ranked 2nd as the cause of death for all Americans and 1st among African Americans.

As AIDS incidence and deaths have declined, the number of Kentuckians living with AIDS or the prevalence of AIDS has increased 18 percent from 1997 to 1998. The prevalence of those persons living with HIV who have not progressed to AIDS also increased 4 percent during the same time period. Many persons with HIV and AIDS may need financial assistance for drugs, housing and other necessities because in one study the costs associated with AIDS treatment were estimated at $3,274 to $4,087 a month. State and federally funded HIV services must continue their beneficial programs and adapt to assist those additional persons so that quality years of life will be extended.

Characteristics of the HIV/AIDS epidemic

Gender

Not only are general Kentucky AIDS trends changing but also the characteristics of those affected are changing. The percentage of female AIDS cases diagnosed has increased from 11 percent in 1992 to 18 percent in 1998. Males, however, continue to represent a sizable majority of cumulative HIV/AIDS cases with 88 percent of total AIDS cases reported and 78 percent of HIV cases reported. The 1998 incidence rate of AIDS among males at 16.5 per 100,000 population is approximately eight times higher than the rate for females.

Racial Disparity

Whites comprise the majority of cumulative HIV and AIDS cases at 60 percent and 71 percent, respectively. However, African Americans are affected far more disproportionately. For instance, in 1998 African Americans comprised 7 percent of the total population yet 35 percent of AIDS cases and 36 percent of HIV cases. This discrepancy has increased in recent years. The percentage of African American AIDS cases has increased from 24 percent in 1992 to 35 percent in 1998. Also, in 1998 the AIDS incidence rate among African Americans, 46.5 per 100,000, was approximately eight times higher than the rate for whites. The high percentage of AIDS cases among African Americans possibly relates to poor access to health care and other economic disadvantages. Race or ethnicity alone does not make one more susceptible to HIV infection.

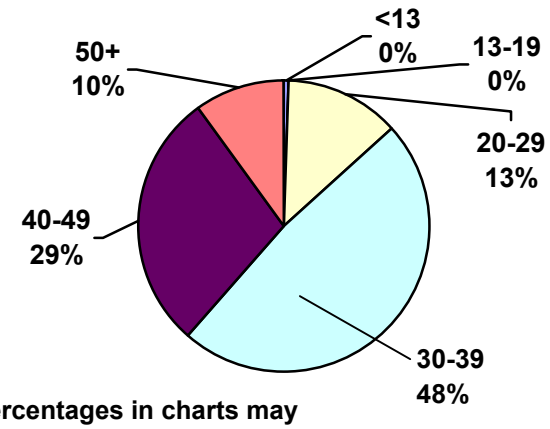
African Americans are not the only racial group disproportionately affected by HIV/AIDS. AIDS among the Hispanic population has shown a recent increase. From

1982 to 1996, the greatest number of Hispanic cases diagnosed in a single year was 6. In 1997, 11 Hispanic AIDS cases were diagnosed. A similar but more gradual increase is also noted among HIV cases. The Hispanic AIDS rate for 1998 at 33.2 per 100,000 is approximately five times higher than the rate for whites. As the Hispanic population increases in Kentucky, added emphasis should be placed on their possible health needs. This discrepancy among races in AIDS rates should be a public health concern for all Kentuckians. The *Healthy Kentuckians 2010* targets in this document have been set to eliminate this disparity.

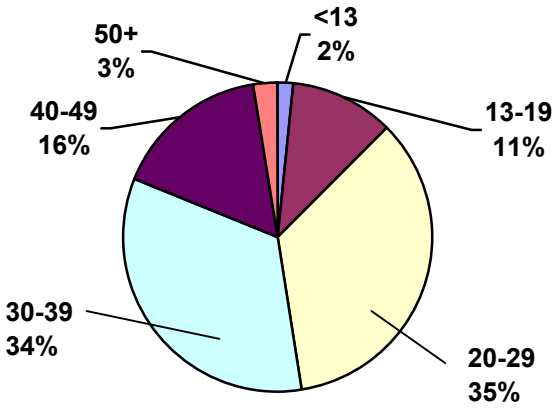
Age at Time of Diagnosis

Among AIDS cases diagnosed in 1998, the highest percentage were in their thirties. The HIV percentage in the 30-39 age group was 34 percent, however, is less than the AIDS percentage in the same age group (48 percent). The percentage of AIDS cases diagnosed in their teens and twenties have remained relatively stable in recent years; however, their percentages have increased among HIV cases.

Kentucky 1998 AIDS Cases by Age at Time of Diagnosis, 6/30/99



Kentucky 1998 HIV Cases by Age at Time of Diagnosis, 6/30/99



***Percentages in charts may not total 100% due to rounding.**

Mode of Exposure

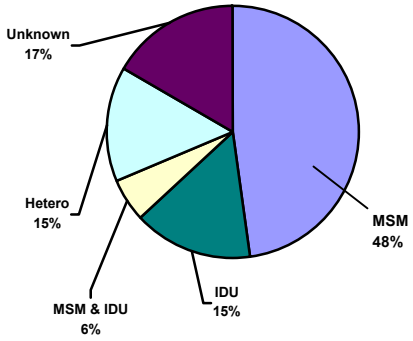
Persons primarily are infected by HIV through sexual exposure or contact with blood infected with HIV, such as by injecting drugs with a contaminated syringe. Mothers also can pass HIV on to their children perinatally, during pregnancy, birth or through breastfeeding.

Men who have sex with men (MSM) comprise the majority of Kentucky's male HIV and AIDS cases, 63 percent and 58 percent, respectively. However, the percentage of MSM AIDS cases has declined in recent years. Among male AIDS cases in 1998, the second highest risk factor was injecting drug use (IDU) 13 percent, followed by heterosexual contact, 10 percent, and the combination risk factor MSM & IDU at 6 percent. In the 1990's, male AIDS cases attributed to IDU and heterosexual contact have increased.

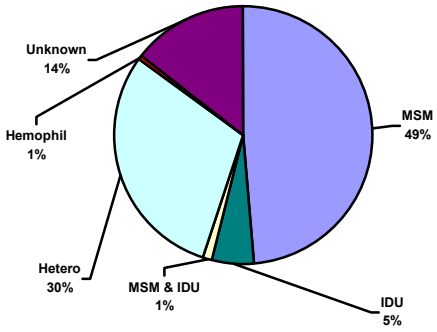
Among females in 1998, the greatest percentage of HIV cases (72 percent) and AIDS cases (41 percent) was attributed to heterosexual contact. The second highest percentages of female HIV and AIDS cases are attributed to injecting drug use. Cases related to both risk factors have remained relatively stable in recent years.

The percentage distribution by mode of exposure of all adult/adolescent AIDS and HIV cases diagnosed in 1998 is presented in the charts below.

1998 Adult/Adolescent Kentucky AIDS Cases by Mode of Exposure, 6/30/99*



1998 Adult/Adolescent Kentucky HIV Cases by Mode of Exposure, 6/30/99*



*Percentages in charts may not total 100 percent due to rounding.

Kentucky has had very few AIDS cases reported resulting from perinatal transmission. The greatest number of perinatal AIDS cases, 5, were diagnosed in 1996. Since that time cases have declined with only one perinatal AIDS case diagnosed in 1998. The Centers for Disease Control and Prevention (CDC) and the American Academy of Pediatrics have both recommended HIV counseling and testing of pregnant women. In 1998, an Institute of Medicine report also emphasized the need for HIV testing of all pregnant women. Early detection of HIV among pregnant women is so important because studies have shown that administering the drug zidovudine (AZT) to the mother during pregnancy and birth and to the infant for six weeks after birth reduces the risk of HIV transmission by two-thirds.

The number of Kentucky AIDS cases who contracted the disease through tainted blood, blood clotting products and transplants has declined since 1992. Only two HIV cases in this category have been diagnosed since 1996. This is due to better screening of blood products and transplants starting in 1985. There have been no occupationally related HIV or AIDS cases reported in Kentucky.

Geographic Distribution

Although persons with HIV and AIDS have resided in every Kentucky Area Development District (ADD), most persons are from metropolitan areas. In 1998, the

majority of AIDS cases, at 47 percent, resided at time of diagnosis in the KIPDA ADD that contains Jefferson County and the city of Louisville. Actually, 41 percent of cases resided in Jefferson County at time of diagnosis. The KIPDA ADD also had the highest AIDS rate of 12.3 per 100,000. The ADD with the second highest percentage of AIDS cases at 15 percent is Bluegrass. Fayette County and the city of Lexington are located in this ADD. Prevention efforts and HIV services programs must continue to target the high prevalence areas of the state while still providing culturally appropriate resources to more rural areas.

Conclusion

HIV and AIDS continue to be serious public health problems in Kentucky. Although AIDS incidence and deaths have declined in Kentucky and throughout the nation, HIV cases diagnosed each year have remained stable and the prevalence is increasing. Prevention efforts targeting those at high risk for HIV infection must continue. These initiatives must be racially sensitive and incorporate differences in economic status. Emphasis on early HIV testing is an important component of HIV prevention efforts. HIV testing counselors educate HIV positive clients about ways to prevent infecting others and educate HIV negative clients about ways to avoid infection in the future. One developmental *Healthy Kentuckians 2010* objective sets the goal to lengthen the time from HIV diagnosis to AIDS infection. Early HIV diagnosis and treatment directly relate to this goal. As more people are living with HIV and AIDS, we also must continue and improve medical, financial and other support services in order to extend quality years of life.

Progress Towards Year 2000 Objectives

Only one objective, 18.8 was met; however, progress has been made on 18.2, 18.3, 18.4 and 18.6.

18.1 To contain at no more than 130 per year the number of diagnosed AIDS cases in Kentucky.

The number of AIDS cases adjusted for reporting delay that were diagnosed in 1998 was 295. The goal has not been met, although the number of AIDS cases diagnosed each year has been declining since 1996.

18.2 To contain at no more than 1 per 100,000 units tested the seroprevalence in blood centers serving Kentucky.

In 1997, the rate per 100,000 units tested was 2.8. This is a decline from 8.1 per 100,000 units tested in 1990. Progress was made towards achieving this goal, although the goal was not met.

18.3 To contain at no more than 10 per 100,000 HIV seroprevalence in women giving birth to live born infants.

The survey of childbearing women was the target setting source for this objective. For this survey, all babies born in Kentucky were tested for their mothers' HIV antibodies. This test ended in 1995, and at that time the percentage positive was .02 percent for an approximate seroprevalence of 20 per 100,000. In 1994, the seroprevalence was approximately 40 per 100,000. Some progress was made toward achieving the goal, although the goal was not met.

18.4 To contain at no more than 30 per 100,000 HIV seroprevalence in military recruits in Kentucky.

According to a Department for Health Services Report, the seroprevalence among military recruits from October 1995 to December 1998 was 31 per 100,000. The goal was almost reached.

18.5 To ensure that 100 percent of the state's school-age youth know where to get good information about HIV/AIDS infection.

According to the 1997 Kentucky Youth Risk Behavior Survey (YRBS), 88 percent of students were taught about HIV/AIDS in high school. The question on which this goal was based was not found in the 1997 YRBS Report. The goal could not be evaluated properly.

18.6 To increase to at least 75 percent the number of sexually active, unmarried school-aged youth who used a condom at last sexual intercourse.

In the 1997 Kentucky YRBS, 59 percent of respondents reported they used a condom during their last sexual intercourse. This is progress from the 1990 baseline of 51 percent; however, the goal was not met.

18.7 To achieve awareness by 75 percent of Kentuckians age 18 and older of the availability of a reliable and accurate test for the presence of HIV antibodies.

Since no source was given for the baseline, data directly relating to this goal could not be obtained. However, one question from the 1997 Behavioral Risk Factor Surveillance System does relate to the goal. This question asks those persons ages 18-64, "Have you ever had an HIV Blood Test". Among this age group, 38 percent said "yes". This goal could not be adequately evaluated.

18.8 That 70 percent of those persons diagnosed with AIDS in 1999 be alive at the end of the year 2000.

According to the baseline data, 35 percent of persons diagnosed with AIDS in 1989 were alive at the end of 1990. Among persons diagnosed in 1997, 85

percent were alive at the end of 1998. Using the most current data, this goal was met.

2010 Objectives

21.1.a. Confine annual incidence of diagnosed AIDS cases among adolescents and adults to no more than 5.4 per 100,000 population. (Note: Baseline is based on 1998 statistics.)

Description	1998 Baseline	Target
Total (persons > 12 years old)	9.1	5.4

Race	1998 Baseline	Target
White	6.0	5.4
African-American	46.5	5.4
Hispanic	33.2	5.4
Asian/Pacific Islander	*	*
American Indian/Alaska Native	*	*

Gender and race	1998 Baseline	Target
Total males	**16.5**	**10.2**
White males	11.3	10.2
African American males	79.2	10.2
Hispanic males	59.2	10.2
Asian/Pacific Islander males	*	*
Am.Indian/Alaska Native males	*	*
Total females	**2.2**	**1.1**
White females	1.2	1.1
African American females	15.1	1.1
Hispanic females	6.4	1.1
Asian/Pacific Islander females	*	*
Am. Indian/Alaska Native females	*	*

** Number of reported cases too small to complete baselines and projections*

Target Setting Methods: Ten percent improvement in the lowest rate of AIDS cases among whites, African Americans and Hispanics in 1998. These groups comprise 99.5 percent of the total number of adult adolescent AIDS cases diagnosed in 1998. Baselines are calculated from year of diagnosis adjusted for reporting delays.

Data Source: Kentucky HIV/AIDS Surveillance System

21.1.b. Confine annual number of diagnosed AIDS cases among adolescents and adults to no more than 184 cases. (Note: Baseline is based on 1998 statistics.)

Please note that Kentucky decided to add *Other/undetermined* as a risk exposure category to these objectives, as it represents a sizable population. Perinatal transmission is included under a separate objective.

Description:	**1998 Baseline**	**Target**
Total (persons > 12 years old)	295	184
Male exposure category:		
Men who have sex with men (MSM)	147	88
Injecting drug use (IDU)	33	20
Heterosexual contact	25	15
Other/Undetermined	51	30
Female exposure category:		
Injecting drug use (IDU)	10	9
Heterosexual contact	16	13
Other/Undetermined	11	11

Target Setting Methods:
Baselines are calculated from year of diagnosis adjusted for reporting delay. Total case target was calculated by estimating the total number of cases based on a target rate of 5.4 per 100,000 (See *objective 21.1a*) and Kentucky State Data Center population projections for adults and adolescents in the year 2010. The same percentage distributions of the 1998 mode of exposure baselines were used to set the targets for each exposure category.

....Data Sources: Kentucky HIV/AIDS Surveillance System; Kentucky State Data Center

Implementation Strategies for 1a and 1b:

- Identify the key persons/agencies to reach the objective and then collaborate with them to define our roles.
- Develop joint objectives with the HIV Counseling and Testing Program to increase the numbers of at-risk persons knowing their serostatus.
- Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services and provision of funding.
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions.
- Increase Insurance Program to cover a greater number of HIV positive individuals.
- Continue an aggressive statewide comprehensive HIV prevention plan.
- Ensure accessibility to education and prevention efforts for all populations.

- Place special emphasis on providing reinforcement for behavioral change and adoption of safer sex practices among those living with HIV infection.
- Place special effort on funding street outreach in order to reach those hard to reach at-risk populations.
- Encourage reduction in substance use/abuse and/or encourage harm reduction activities.
- Prompt investigation of removal of barriers to needle exchange programs.
- Support continued research on prevention and treatment.

21.2. (Developmental): **Reduce the annual incidence of diagnosed HIV infection in adolescents and adults.**

Potential Data Source: Kentucky HIV/AIDS Surveillance System

In recent years, treatments that delay the progression of HIV disease and prevent opportunistic infections have allowed people to live longer and healthier lives. Although it is still important to track annual incidence of diagnosed AIDS cases to determine where the epidemic is occurring, these new treatments have made the reporting of AIDS cases alone less indicative of recent trends in the epidemic.

As of January 1998, 31 States were conducting pediatric HIV case surveillance; 28 of the 31 were also conducting adolescent and adult HIV surveillance. The December 10, 1999 *Morbidity and Mortality Weekly Report (MMWR)* recommends that "all states and territories conduct case surveillance for HIV infection as an extension of current AIDS surveillance activities." Although 31 States conduct HIV case surveillance, combined these States represent roughly 30 percent of the AIDS cases. Without complete information from all states it is difficult to estimate a national representative number of HIV infections. Kentucky does conduct HIV surveillance; however, cases are reported by initials not by name. For this reason, the CDC does not count Kentucky's HIV cases in the total HIV case number for the **nation.**

Implementation Strategies:

- Continue an aggressive statewide comprehensive HIV prevention plan.
- Ensure accessibility to education and prevention efforts for all populations.
- Ensure accessibility to treatment and services for all populations.
- Encourage every individual residing in Kentucky to seek HIV counseling and testing; especially those individuals with behaviors that may have placed them at increased risk.
- Place special emphasis on providing reinforcement for behavioral change and adoption of safer sex practices among those living with HIV infection.
- Place special effort on funding street outreach in order to reach those hard to reach at-risk populations.

- Encourage reduction in substance use/abuse and/or encourage harm reduction activities.
- Urge removal of barriers to needle exchange programs.
- Support continued research on prevention and treatment.
- Improve the HIV surveillance system in order to meet national standards and collect the most complete as well as accurate information to monitor trends in the HIV epidemic.

21.3. (Developmental): **Reduce the annual incidence of perinatally acquired HIV infection to zero cases.**

Baseline: To be determined, target is zero incidences.

Potential Data Source: Kentucky HIV/AIDS Surveillance System

Implementation Strategies:

- Continue HIV Care Coordinator education of infected women of childbearing age about perinatal HIV transmission and appropriate prevention measures.
- Develop and implement prenatal care provider education programs.
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions.
- Increase Insurance Program to cover a greater number of HIV positive individuals.
- Improve the HIV surveillance system in order to meet national standards and collect the most complete as well as accurate information to monitor trends in the HIV epidemic.

21.4. (Developmental): **Increase proportion of sexually active unmarried people age 18 and older who reported that a latex condom was used at last sexual intercourse.**

Potential Data Source: Special questions developed for the BRFSS

Implementation Strategies:

- Continue public awareness campaigns related to the effectiveness of the use of latex condoms in preventing HIV and other Sexually Transmitted Diseases (STDs).
- Continue active street outreach especially to those hard to reach at-risk populations.
- Continue Public Sex Environment Outreach.
- Encourage continued distribution of free latex products (condoms, dental dams, etc.) by all local health departments, Community Based Organizations and AIDS Service Organizations.

21.5. To increase to at least 68 percent the number of sexually active, unmarried high school-aged youth who used a latex condom at last sexual intercourse.

Baseline: 59 percent of high school youth, 1997

Target: 68 percent of high school youth

Target Setting Methods: 15 percent improvement

Data Source: Kentucky YRBS

Implementation Strategies:

- Continue public awareness campaigns related to the effectiveness of the use of latex condoms in preventing HIV and other STDs.
- Prompt investigation into removal of barriers to HIV and STD prevention education in classrooms.
- Ensure accessibility to education and prevention efforts for all populations.
- Encourage dissemination of HIV/STD education and prevention of all types not just abstinence based programs.
- Support continued research on prevention and treatment.

21.6. (Developmental): **Increase the proportion of clients who are screened for common bacterial STDs (chlamydia, gonorrhea, and syphilis) and immunized against hepatitis B in confidential federally funded HIV counseling and testing sites.**

Potential Data Source: HIV Counseling and Testing Surveillance System
STD Surveillance

Implementation Strategies:

- Ensure accessibility of Counseling, Testing, Referral, and Partner Notification (CTRPN) to all populations.
- Prompt the education of all health care providers to the importance of CTRPN for all populations.
- Establish off site counseling and testing sites.
- Increase public awareness of the importance of knowing one's serostatus.
- Continue linkage between HIV, STD, and Tuberculosis programs.

21.7. (Developmental): **Increase the proportion of persons entering treatment for injecting drug use who are also offered HIV counseling and voluntary testing.**

Potential Data Source: Department for Mental Health/Mental Retardation, Division of Substance Abuse.

Injecting drug users may continue to use drugs and engage in high-risk sexual behavior that place them at risk of HIV infection. Treatment approaches must include persistent efforts to counsel injecting drug users about both high-risk behaviors and the risk of HIV infection. Many children with AIDS who were infected with HIV perinatally come from families where one or both parents are injecting drug users. Drug treatment services should encourage education, counseling, and testing to reduce risk and to prevent HIV transmission. Drug treatment models targeted toward this population should be culturally appropriate and gender specific and include HIV prevention and intervention strategies to reverse the trends of the HIV epidemic.

21.8 Increase to 63 percent the proportion of 25 to 44 year olds with reported tuberculosis who also have knowledge of their HIV serostatus.

Baseline: 42 percent of 25 to 44 year olds, 1997

Target: 63 percent of 25 to 44 year olds

Target Setting Method: 50 percent improvement

Data Source: Kentucky TB Surveillance System

The rapid progression of active TB disease among HIV positive patients after infection with *Mycobacterium tuberculosis* has been well documented. Early detection of HIV in TB patients allows for early intervention and treatment that may prevent or delay the development of other HIV related illnesses and AIDS. In fact, many individuals who are diagnosed with TB related to compromised immunity caused by HIV are unaware of their HIV status. TB patients receive HIV testing only after counseling and informed consent from the patient. Because testing is voluntary, some patients may decline HIV testing.

Implementation Strategies:

- Ensure accessibility of CTRPN to all populations.
- Prompt the education of all health care providers to the interaction of HIV and TB.
- Establish off site counseling and testing sites.
- Increase public awareness of the importance of knowing one's serostatus.
- Continued linkages between HIV, STD, and TB programs.

21.9. Increase to 100 percent the proportion of schoolchildren who receive classroom education on HIV and STDs.

Baseline: 88 percent of high school children, 1997

Target: 100 percent of high school children

Target Setting method: 15 percent improvement

Data Source: YRBS

Implementation Strategies:

- Prompt investigation into removal of barriers to HIV and STD prevention education in classrooms.
- Ensure accessibility to education and prevention efforts for all populations.
- Encourage dissemination of HIV/STD education and prevention of all types not just abstinence based programs.
- Support continued research on prevention and treatment.

21.10. (Developmental): **Increase the percentage of HIV-infected adolescents and adults in care who receive treatment consistent with current Public Health Service treatment guidelines.**

This objective is included in planning even though this will be very difficult to establish baseline and target numbers. The national objective references the Adult Spectrum of Disease (ASD) surveillance project, but the CDC has not sponsored that project in Kentucky. Technical assistance will be required from federal agencies on how a non-project area is to track these data.

It should also be noted that the objectives themselves have not been defined. For example, *CD4 testing* is a diagnostic procedure that should occur every three to six months, but the frequency is determined by the clinician. Also, the two diseases listed were presumably included as standards for prophylaxis, yet these would only be applicable to those persons with CD4+ cell counts <200. More specific definitions of the applications of the PHS standards mentioned are needed. For these reasons, we have not broken down each PHS guideline listed by the individual categories until further information is received.

Baseline data and Targets will be developed for the following areas:

- CD4 testing
- Viral load testing
- Any antiretroviral therapy
- Tuberculin skin testing (TST)
- *Pneumocystis carinii* pneumonia (PCP)
- *Mycobacterium avium* complex (MAC)
- Pneumococcal vaccination

Potential Data Sources: To be determined.

Implementation Strategies:

- Develop data sources to establish the baseline numbers and targets.
- Identify the key persons/agencies to reach the objective and then collaborate with them to define our roles.
- Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services and provision of funding.
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions.
- Increase Insurance Program to cover a greater number of HIV positive individuals.

21.11. Reduce mortality due to HIV infection to no more than 1.0 per 100,000 population, and then by ethnicity and gender, as indicated below.

Description	1998 baseline	Target
Total for all persons	2.0	1.0
Race		
White	1.2	1.0
African-American	11.3	1.0
Hispanic	6.6	1.0
Asian/Pacific Islander	*	*
American Indian/Alaska Native	*	*
Gender and race		
Total males	**3.5**	**2.0**
White males	2.4	2.0
African American males	16.3	2.0
Hispanic males	13.2	2.0
Asian/Pacific Islander males	*	*
Am. Indian/Alaska Native males	*	*
Total females	**0.6**	**0.2**
White females	0.2	0.2
African American females	6.1	0.2
Hispanic females	*	*
Asian/Pacific Islander males	*	*
Am. Indian/Alaska Native males	*	*

* *number of reported cases too small to complete baselines and projections*

Target Setting Methods: 15 percent reduction in the lowest mortality rate due to HIV infection among whites, African Americans and Hispanics in 1998. These groups comprised 99.5 percent of all AIDS cases diagnosed in 1998.

Data Sources: Kentucky HIV/AIDS Surveillance System

Implementation Strategies:

- Identify the key persons/agencies to reach the objective and then collaborate with them to define our roles.
- Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services and provision of funding.
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions.
- Increase Insurance Program to cover a greater number of HIV positive individuals.

21.12. (Developmental): **Increase years of healthy life of all individuals with HIV by extending the interval between an initial diagnosis of HIV infection and AIDS diagnosis, and between AIDS diagnosis and death.**

Potential Data Source: Kentucky HIV/AIDS Surveillance System

In 1996, Kentucky AIDS deaths dropped 29 percent from 1995, and death rates have continued to decline through 1998. Not only are new therapies delaying progression from AIDS to death, but with early diagnosis and treatment, these therapies also are helping to delay the progression from HIV infection to an AIDS diagnosis for many individuals. It is important not only to continue to reduce the number of deaths by increasing access to treatment and care, but also to target prevention efforts at groups disproportionately affected.

HIV infected individuals should be identified at the earliest possible opportunity and referred to appropriate medical, social, and preventive services that may preserve their health, help them avoid opportunistic infections and reduce sexual and drug-use behaviors that may spread HIV. To enable HIV infected persons to benefit from treatment advances, HIV counseling and testing programs must better facilitate early diagnosis of HIV infection and ensure that HIV infected persons have access to such services.

Implementation Strategies:

- Conduct further studies to determine the causes for short intervals between diagnosis with HIV and AIDS, and AIDS and death.
- Develop joint objectives with the HIV Counseling and Testing Program to increase the numbers of at-risk persons knowing their serostatus.
- Identify the key persons/agencies to reach the objective and then collaborate with them to define our roles.

- Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services and provision of funding.
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions.
- Increase Insurance Program to cover a greater number of HIV positive individuals.

21.13. (Developmental): **Increase the estimated percentage of individuals who engage in injecting drug use during the past year who are enrolled in drug abuse treatment programs.**

Potential Data Source: Department of Mental Health/Mental Retardation, Division of Substance Abuse.

Implementation Strategies:
- Prompt awareness and utilization of harm reduction principles.
- Ensure accessibility to education and prevention efforts for all populations.
- Ensure accessibility to treatment and services to all populations.
- Encourage every individual residing in Kentucky to seek HIV counseling and testing; especially those individuals with behaviors that may have placed them at increased risk.
- Prompt investigation into removal of barriers to substance abuse treatment.

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