

Pediatric HIV/AIDS Cases* in Florida, through 2003

**Bureau of HIV/AIDS
HIV/AIDS Surveillance Section
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***HIV/AIDS cases infected UNDER 13 years of age.
Includes adult HIV/AIDS cases, diagnosed with a pediatric risk
AFTER 12 yrs of age. Data as of 07/31/04.**

This pediatric epidemiological profile is updated and posted on the HIV/AIDS web site each year. For copies of either the pediatric epi profile and/or the pediatric slide set, please visit our website or contact the Data Analysis Unit at (850) 245-4430.

IMPACT OF HIV/AIDS AMONG PEDIATRICS (AGES 0-12)

The HIV/AIDS Epidemic Among Children

Worldwide

It is estimated that 3.2 million children (under 15 years of age) worldwide are living with HIV infection, with over 2,000 new infections each day and an average of 1,600 dying of HIV each day. Furthermore, an estimated 14 million children living today have lost one or both parents due to AIDS. Approximately 80% of these children, 11 million, live in sub-Saharan Africa (UNAIDS Joint United Nations Programme on HIV/AIDS, December 2002). Ninety percent of children are infected at birth or through their mother's breast milk. Of these, almost nine-tenths were in sub-Saharan Africa.

The AIDS Epidemic Among Children

United States

Historically, Florida has been second, behind New York, in the number of pediatric AIDS cases reported for a given year. However, in 2002, Florida led the United States in the number of pediatric AIDS cases (<13 years of age), reporting 40 (25%) of the total cases (N=158). New York reported 23 cases (15%), California reported 11 (7%) and New Jersey reported 8 (5%) of the pediatric AIDS cases (Table 1 and Figure 1). Cumulatively, Florida ranks second in the number of reported pediatric AIDS cases in the country.

Table 1. Reported Pediatric AIDS Cases by State*

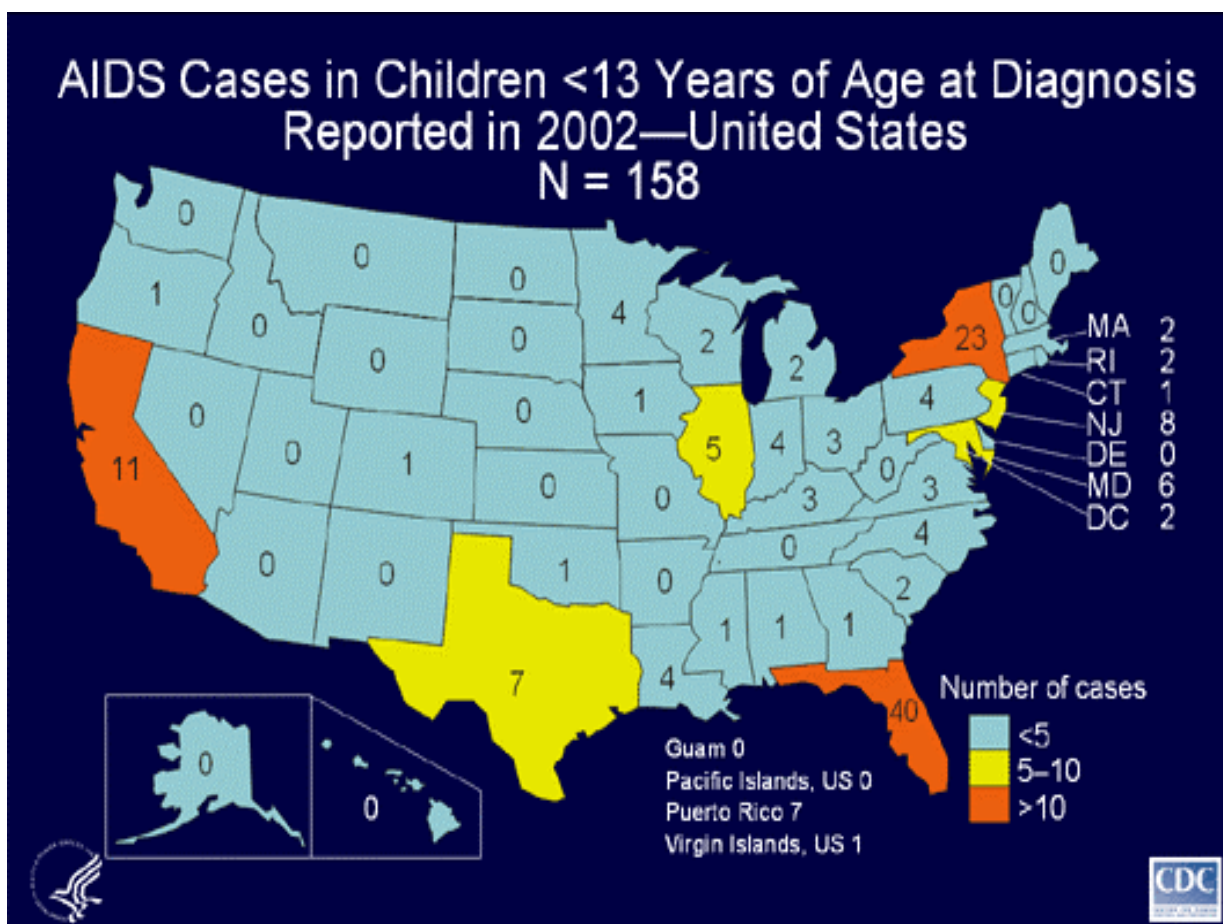
Reporting State	January - December 2002		Cumulative through 12/2002	
	# of Cases	% of Total	# of Cases	% of Total
New York	23	15%	2,298	26%
Florida	40	25%	1,473	17%
New Jersey	8	5%	764	9%
California	11	7%	630	7%
Texas	7	4%	392	4%
Pennsylvania	4	3%	340	4%
Maryland	6	4%	313	4%
Illinois	5	3%	277	3%
Louisiana	4	3%	130	1%
North Carolina	4	3%	120	1%
Indiana	4	3%	53	1%
Minnesota	4	3%	27	0%
Remainder of U.S.**	38	24%	1,987	23%
Total Cases	158	100%	8,804	100%

*Source: CDC, HIV/AIDS Surveillance Report, Vol. 14.

**Remainder of US AIDS cases also include US Territory data.

These territories include Guam, US Pacific Islands, Puerto Rico and US Virgin Islands.

Figure 1. Pediatric AIDS cases reported by state, United States, 2002.

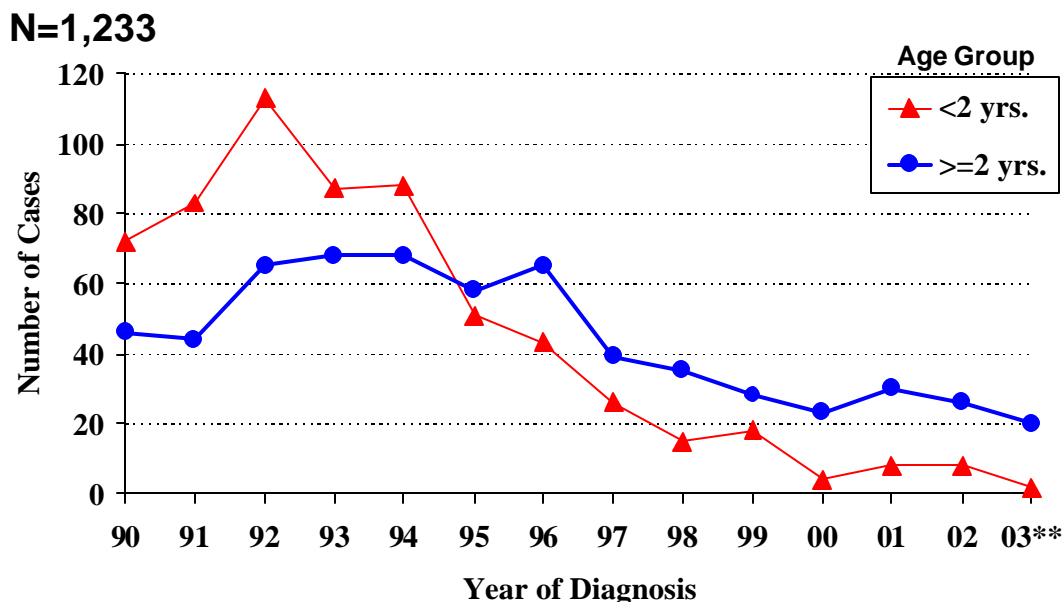


The HIV/AIDS Epidemic Among Children

Florida (data through 07/31/04)

The incidence of AIDS in children under age 2 reached a high of 113 cases in 1992; this decreased to only two cases for children under two in 2003 (Figure 2). HIV testing of pregnant women, combined with the introduction of zidovudine (ZDV) to prevent perinatal HIV transmission, has resulted in a 93% reduction in perinatal HIV/AIDS cases in infants born in Florida since 1992. Consequently, it is important for all pregnant women to know their HIV status (94% of the 1,897 pediatric HIV/AIDS cases reported in Florida through 2003 were perinatally acquired). Florida law requires health care providers who attend a pregnant woman to counsel her and offer HIV testing at the initial prenatal care visit and again at 28 – 32 weeks gestation). Pregnancy Risk Assessment Monitoring System data (PRAMS) indicate that in 2002, 90.2% of pregnant women received an HIV test during pregnancy, an increase of 4% over the previous year. Pediatric AIDS cases reported at age two and later have also sharply declined since 1994. This is partially due to the maternal use of ZDV to prevent perinatal transmission of HIV, along with the use of prophylactic medicines by HIV-infected pediatric cases to prevent AIDS opportunistic infections.

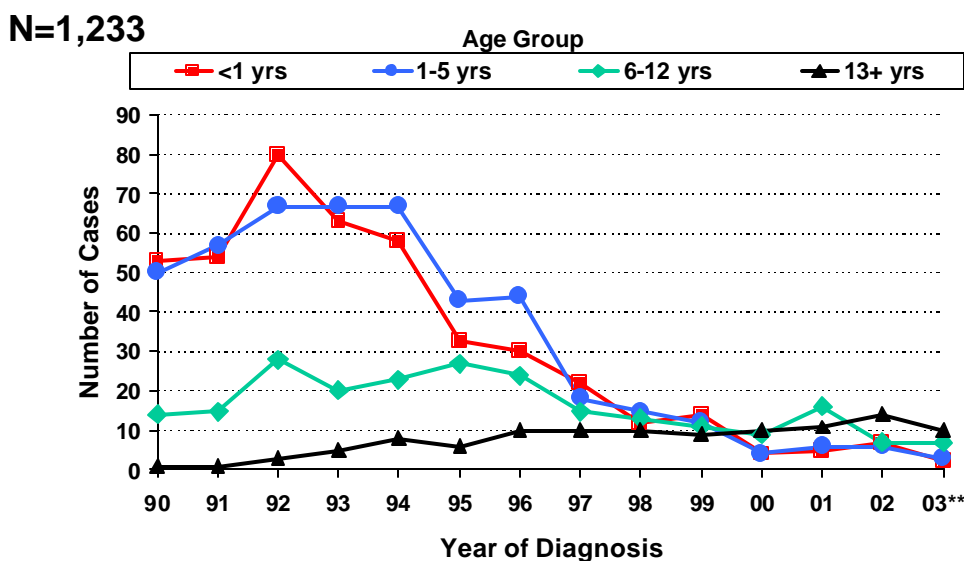
Figure 2. Pediatric AIDS cases by age group and year of diagnosis, Florida, 1990-2003



These data represent an 89% decline in pediatric AIDS cases diagnosed from 1992 (N=178) to 2003 (N=22).
 *Include cases in persons aged >12 yrs. at AIDS diagnosis with a ped risk aged <=12, (N=108).
 **2003 data are provisional. Data as of 07/31/04.

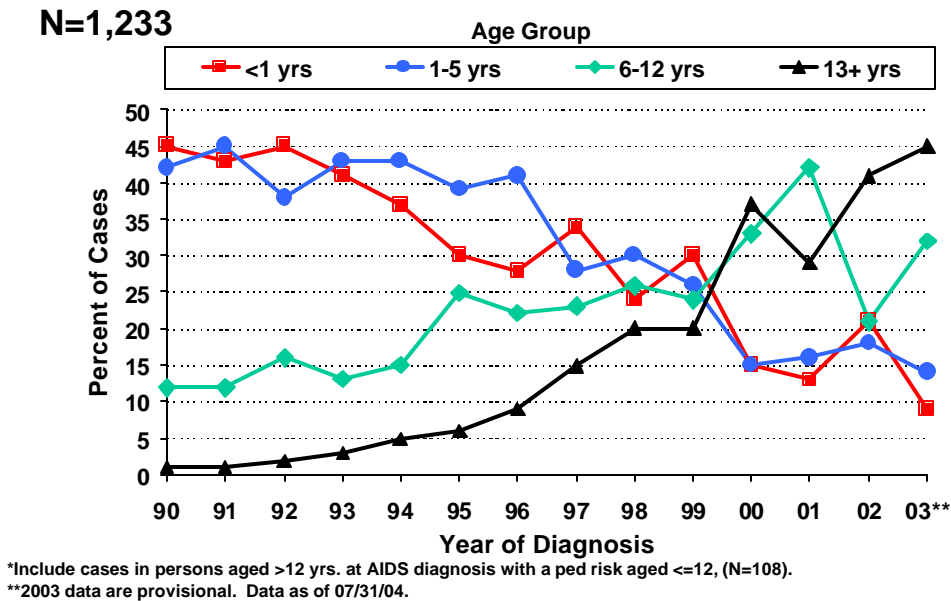
It is interesting to note that although there has been a steady decrease in the number of diagnosed pediatric AIDS cases since 1994 and a decrease in the number of pediatric AIDS cases in those under five years of age (Figure 3), the percentage of new AIDS cases for those aged six to twelve and those over age 12 has shown an increasing trend since 1990 (Figure 4). This trend might be attributed to the increased use of antiretroviral and other medical therapies that help to delay the onset of AIDS.

Figure 3. Pediatric AIDS Cases, by Age Group and Year of Diagnosis, Florida, 1990-2003.



*Include cases in persons aged >12 yrs. at AIDS diagnosis with a ped risk aged <=12, (N=108).
 **2003 data are provisional. Data as of 07/31/04.

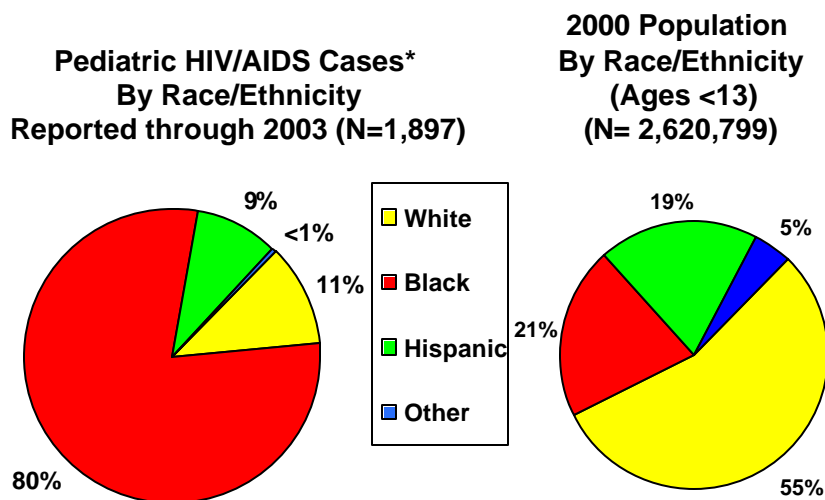
Figure 4. Percentage of Pediatric AIDS Cases, by Age Group and Year of Diagnosis, Florida, 1990-2003.



Pediatric HIV/AIDS cases by Race/Ethnicity

Of the 1,897 pediatric HIV/AIDS cases reported through 2003, 11% were white, 80% were black and 9% were Hispanic. When compared with the general population of persons less than 13 years of age, blacks are disproportionately affected by HIV/AIDS. Although only 21% of children in Florida are black, 80% of children reported with HIV/AIDS through 2003 were black (Figure 5).

Figure 5. Cumulative Pediatric AIDS cases by race/ethnicity, Florida, data reported through 2003.



*Include cases in persons aged >12 yrs. at HIV or AIDS diagnosis with a ped risk aged <=12, (N=115).
 **2003 data are provisional. Data as of 07/31/04.

Pediatric HIV/AIDS cases by mode of exposure -

Ninety-four percent of the 1,897 pediatric HIV/AIDS cases reported through 2003 were perinatally acquired. Five percent were related to other confirmed risks, which include hemophilia, transfusion or heterosexual contact with a partner of unknown HIV status or risk for HIV. The remaining 1% is still pending investigation to determine mode of transmission (Table 2). The majority of the perinatally acquired cases (80%) were black. A total of 104 of these cases were diagnosed with HIV or AIDS for the first time as an adult (>12 years of age). Of these 104 cases, 77% (N=81) had a perinatal risk. This indicates that more children who are born with HIV are now living into their teens prior to developing AIDS.

Table 2. Pediatric HIV/AIDS Cases by Mode of Exposure and Race/Ethnicity, Florida, through 2003.

Exposure Category	White		Black		Hispanic		Other Race		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Mom w/ HIV/AIDS Risk*	169	80%	1,469	98%	150	86%	9	100%	1,797	95%
Ped Other Risk**	41	19%	24	2%	15	9%	0	0%	80	4%
Ped Unknown Risk	1	0%	10	1%	9	5%	0	0%	20	1%
Total	211	100%	1,503	100%	174	100%	9	100%	1,897	100%

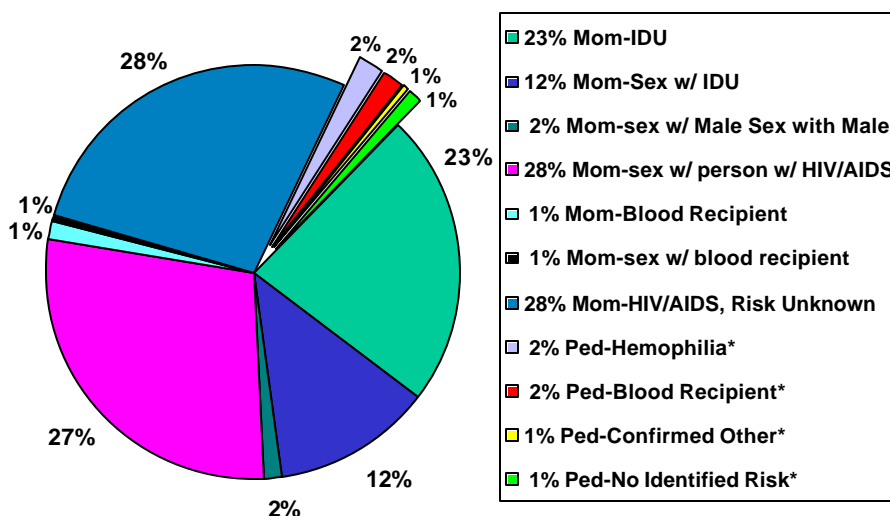
*Includes 99 AIDS and 5 HIV cases who were diagnosed >12 years of age with a perinatal risk.

**Ped Other Risk includes 3 female sex with male (sex abuse), 1 male sex with male, 2 transfusion and 21 hemophilia cases diagnosed with HIV under age 12, and with AIDS over age 12.

Modes of Exposure Among Pediatric HIV/AIDS Cases

Of the cumulative pediatric HIV/AIDS cases reported through 2003 (N=1,897), 94% were infected with HIV perinatally (mother with or at risk for HIV infection) (Figure 6). Two percent of pediatric cases were associated with hemophilia or coagulation disorder; 2% with receipt of blood, components or tissue; and 1% had another confirmed risk and 1% had no identified risk.

Figure 6. Cumulative Pediatric HIV and AIDS Cases By “Expanded” Exposure Category, Florida, Reported through 2003 (N=1,897).



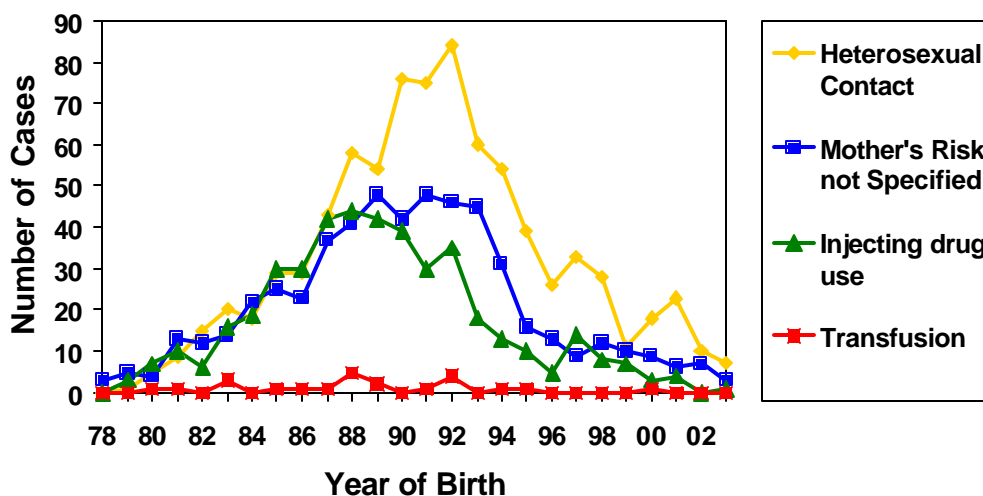
*Note: 6% (exploded pieces) are NOT perinatal transmission cases

Distribution of the mother's exposure category has changed over time for children who were infected perinatally. In the early 1980's, many of these women were exposed to HIV through injection drug use or heterosexual contact (Figure 7). Since 1989, the risk of injection use decreased as the risk of heterosexual contact continued to increase until 1992. Since 1992 a steady decline was observed for all of the risks as the annual number of perinatal cases decreased, first due to improved prophylaxis against OI's and then (in 1994) due also to use of ZDV by pregnant HIV-infected women. Throughout the entire reporting period, many of the mothers' risks were unknown. Most of the cases reported without a risk will be reclassified to the recognized risk categories as further information is reported. A review of data on women who were initially reported with no identified risk, and later reclassified, suggests that a high proportion (greater than 80%) of these women with no identified risk were exposed through heterosexual contact.

PERINATALLY ACQUIRED HIV AND AIDS CASES IN FLORIDA

Since perinatal data revolves around the child's birth, the following data are based on year of birth, not year of report. Therefore, the number of cases born through 2002 will be higher than those reported through 2002, since some of these cases were reported in 2003.

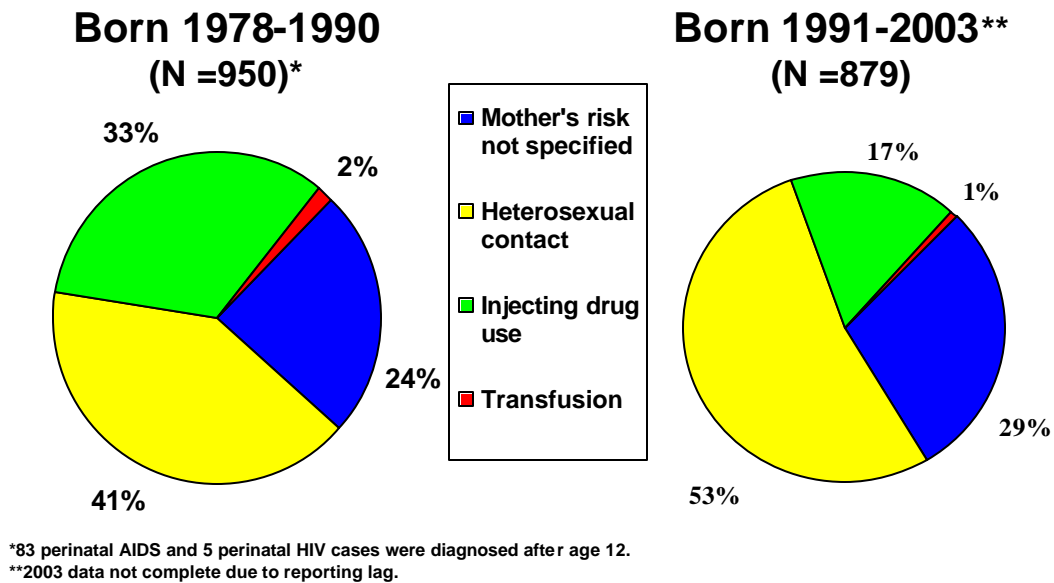
Figure 7. Mother's exposure category by year of the child's birth for perinatal HIV/AIDS, 1978-2003*, Florida, N=1,829.



*2003 data not complete due to reporting lag.
 ** 83 perinatal AIDS and 5 perinatal HIV cases were diagnosed after age 12.
 Note: HIV Infection Reporting Began 7/97.

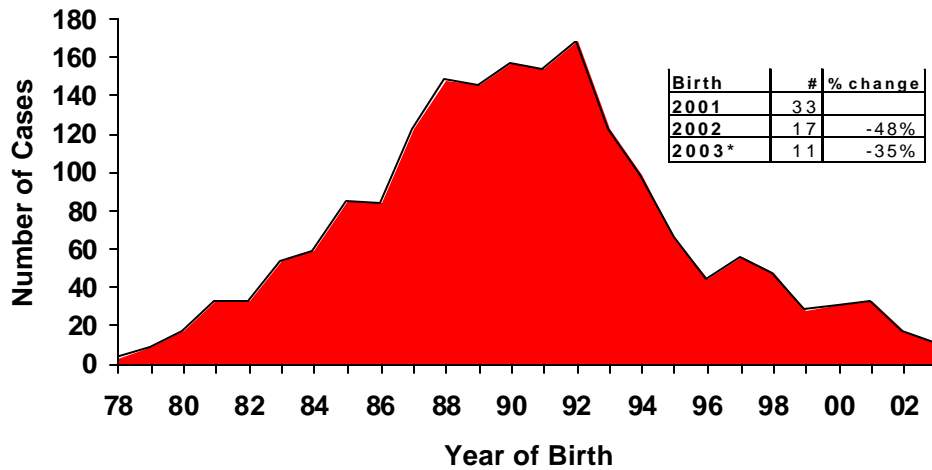
Among children who were infected perinatally with HIV/AIDS, the distribution of their mother's exposure categories has changed over time (Figure 8). Of the perinatal HIV and AIDS cases who were born through 1990, 41% were attributed to the mother's exposure to HIV through heterosexual contact, compared to 53% for those born 1991-2003. Injection drug use accounted for 30% of the cases born between 1978-1990, but only 17% for those born between 1991-2003. Cases where the mother's risk was unknown represented nearly one-third of the cases for both time periods.

Figure 8. Mother's exposure category for perinatally acquired HIV/AIDS cases by year of child's birth, Florida.



Of the 1,829 perinatally HIV-infected babies born through 2003, three were born as early as 1978 (Figure 9). Since that time, the birth of HIV-infected babies continued to rise through 1992. In April 1994, the Public Health Service released guidelines for ZDV use to reduce perinatal HIV transmission, and in 1995 recommendations for HIV counseling and voluntary testing for pregnant women were published. The mandatory offering of HIV testing to pregnant women became law in Florida in October 1996. Since then, the percent of perinatally HIV-infected children who received ZDV or whose mothers received ZDV has increased markedly (Figures 12 & 13). Through enhanced perinatal surveillance systems, it has been documented that ZDV use among exposed infants and mothers of HIV-infected children has increased at the prenatal, intrapartum, delivery and neonatal stages. In the past few years, the use of other medical therapies, including protease inhibitors has supplemented the use of ZDV for both infected mothers and their babies. The use of these medical therapies has been accompanied by a decrease in the number of perinatally HIV-infected children and is responsible for the dramatic decline in perinatally acquired HIV/AIDS since 1994. Furthermore, as noted in detail later in this text, numerous initiatives have contributed to the reduction in these cases: provider education, social marketing etc. These initiatives have helped to further educate local providers in the importance of testing pregnant women for HIV and then offering effective treatment during the pregnancy and at delivery to further decrease the chances of vertical transmission. As a result, significant decreases in annual perinatal births have been observed since 2001 with annual statewide average decreases of 30% (Figure 9).

Figure 9. Perinatally acquired HIV/AIDS cases by year of birth, 1978-2003, Florida, N=1,829.

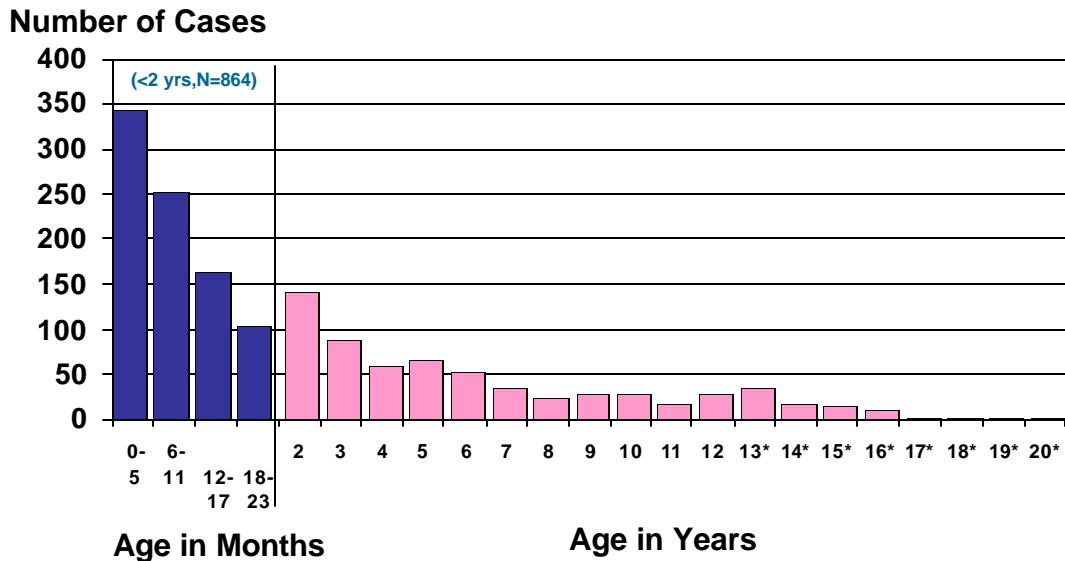


* These data represent a 93% decline in HIV-perinatally infected births from 1992 (N=169) to 2003 (N=11).
 **83 perinatal AIDS and 5 perinatal HIV cases were diagnosed after age 12.
 Note: HIV Infection Reporting Began 7/97.
 *2003 Data are provisional, data as of 07/31/04

Age at Diagnosis of Perinatally Infected HIV/AIDS Cases

Fifty-seven percent (57%) (N=864) of the perinatal AIDS cases born through 2003 (N=1,515), were diagnosed with AIDS prior to the age of two (Figure 10). The number of AIDS cases diagnosed after age two decreases with age. Eighty-three cases (5%) were not diagnosed with AIDS until *after* the age of twelve.

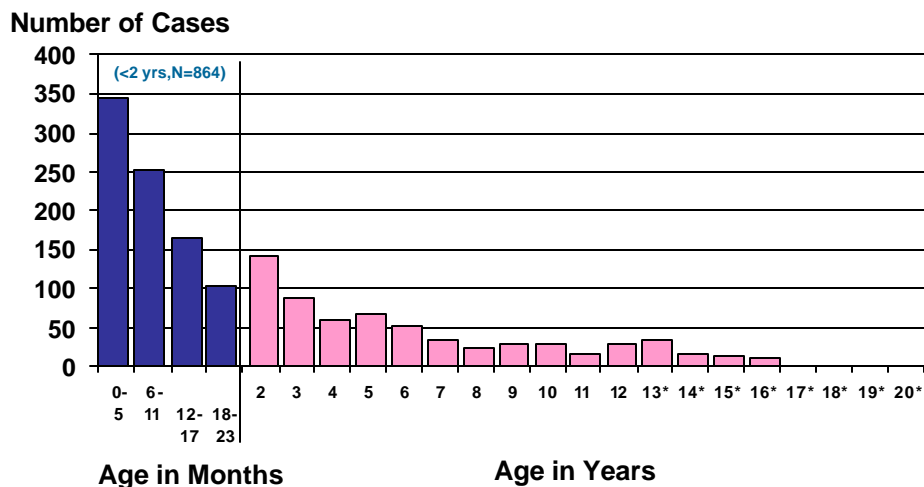
Figure 10. Perinatally acquired AIDS cases by age at diagnosis, Florida, born through 2003 (N=1,515).



*Cases in persons aged >12 yrs. at AIDS diagnosis that were perinatally acquired (N=83).

Thirty-six percent (N=113) of the 314 perinatal HIV (not AIDS) cases born through 2003 were diagnosed within the first 6 months of life (Figure 11). Nearly one-half (153, 49%) of these perinatal HIV cases were not diagnosed until after age 2, and five of these were not diagnosed until *after* the age of twelve.

Figure 11. Perinatally acquired HIV (not AIDS) cases by age of report, Florida, born through 2003 (N=314).



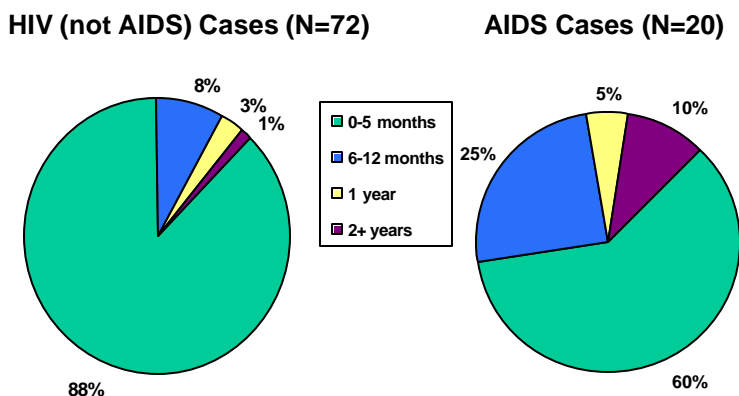
*Cases in persons aged >12 yrs. at AIDS diagnosis that were perinatally acquired (N=83).

HIV and AIDS Perinatal Cases Born Since 2000, Florida (N=92).

Eighty-eight percent (88%) of the HIV (not AIDS) cases who were perinatally infected and born since 2000, were diagnosed with HIV within the first 6 months of life (Figure 12). Ninety-six percent (96%) were diagnosed within the first year of life.

Eighty-five percent (85%, N=20) of those perinatally infected children with AIDS who were born since 2000 developed AIDS within the first year of life. The onset of perinatally acquired AIDS could be postponed until later in life, if more HIV-infected childbearing women become aware of their HIV status and that of their child, and seek medical care for the HIV-infected child early in their infant’s life.

Figure 12. Percent of perinatal AIDS and HIV cases born 2000-2003, by age at diagnosis, Florida.



It is important for HIV-infected pregnant women to know their HIV status so they can make informed decisions about the use of ZDV and other antiretroviral therapy to reduce perinatal transmission of HIV to their infants. Seventy-five percent (75%) of the mothers of HIV-infected children born between 2000 and 2003 knew their HIV status *before* their child was born. Two percent of these were diagnosed at delivery. Twenty-three percent (23%) did *not* know their status until *after* their child was born. This usually occurs in perinatal cases who are first identified as being infected a year or more after the birth of the infected child. In many instances, it was the diagnosis of the child that led to the diagnosis of the mother. The data demonstrates that in most instances, these mothers received no prenatal care and presented at the hospital ready to deliver, with no time for HIV assessment. In other instances, mothers who were diagnosed as HIV negative during pregnancy were never re-tested prior to birth, thus delivering the baby on the history of that negative HIV test. These data stress the importance of offering HIV testing, preferably with a rapid test, at labor and delivery to women of unknown HIV status. Florida law requires women who appear at delivery with no record of an HIV test during pregnancy to be counseled and offered HIV testing.

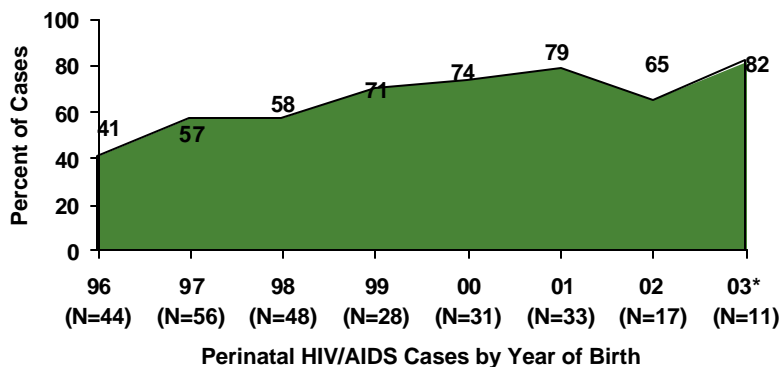
Table 3. Time of maternal HIV testing among perinatal AIDS and HIV cases born 2000 - 2003, Florida (N=92).

	TOTAL	
	No.	Percent
Before Pregnancy	45	49%
During Pregnancy	22	24%
At Delivery	2	2%
After Birth	21	23%
Unknown	2	2%
TOTAL	92	100%

*2003 data not complete due to reporting lag.

The percent of mothers of HIV-infected children who knew their HIV status prior to birth has increased from 41% in 1996 to 82% in 2003 (Figure 13). Based on recommendations from the CDC, Florida has a priority initiative to reduce HIV transmission from mother to children by promoting voluntary maternal testing and ZDV therapy.

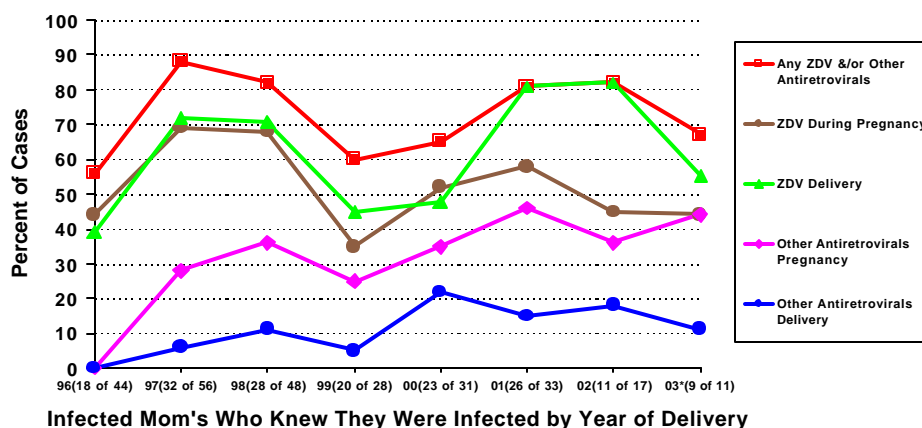
Figure 13. Percent of mothers of perinatal HIV/AIDS cases who were known to be HIV positive prior to birth, by year of birth, 1996-2003, Florida (167 of 268 births).



*2003 data not complete due to reporting lag.

Since 1995, there has been an increase in the use of ZDV and/or other antiretroviral medications by HIV-infected pregnant mothers who gave birth to an HIV-infected child and who knew they were infected prior to birth (Figure 14). This has resulted in the sharp decline of HIV-infected births since that time period. However, not all HIV-infected mothers are receiving ZDV during their pregnancy and/or delivery. In 1996, the percentage of mothers of HIV-infected children who knew their HIV status prior to birth was 41% (18 of 44 births). This increased to 82% in 2003 (9 of 11 births). In 1996, 10 of the 18 (55%) mothers who delivered an HIV-infected infant and knew their HIV status prior to birth, received ZDV and/or other antiretroviral drugs at some point in their pregnancy or delivery. In 2003, 6 of the 9 (67%) mothers who delivered an HIV-infected infant and knew their HIV status prior to birth, received ZDV and/or other antiretroviral drugs at some point in their pregnancy or delivery.

Figure 14. Percent of perinatal HIV/AIDS cases born 1996-2003, whose mothers knew they were infected prior to birth and received any ZDV and/or other antiretroviral therapies*, Florida (167 of 268 births).



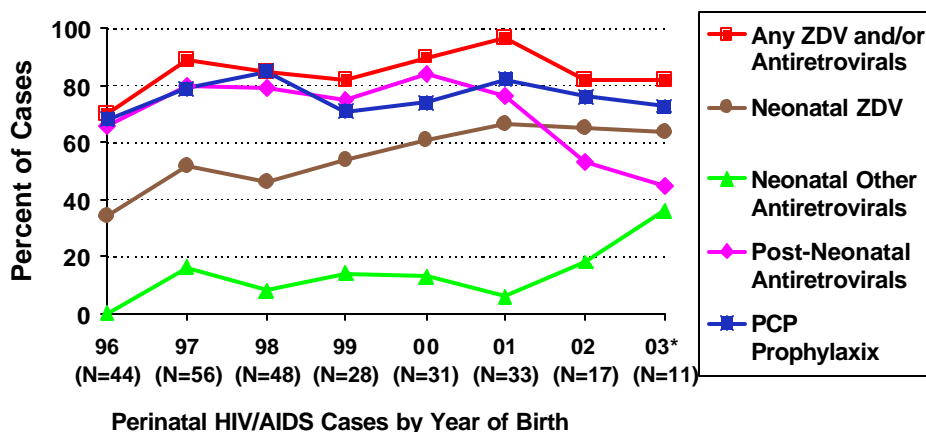
*2003 data not complete due to reporting lag.
 **The same mother can be in multiple categories

The administration of ZDV and/or other antiretroviral and prophylactic therapies to HIV-infected children has remained high at 82% of the children born in 2003 (9 of 11), compared to 70% of the children born in 1996 (31 of 44) (Figure 15). As previously noted (Figure 4), the percent of perinatal AIDS cases being diagnosed later in life has increased over the past five years. These data further demonstrate the positive benefits of treating HIV-infected children with antiretrovirals and other prophylactic therapies shortly after birth; thus delaying the onset of AIDS.

Documentation of the prescription of ZDV and other antiretroviral therapies during the pregnancy, and/or during delivery, and/or postpartum, may not be complete based on the initial case report. This may explain the lower than expected use of these drugs by both mothers and babies. Field staff use the Enhanced Perinatal Surveillance Form as tool while reviewing prenatal and birth records to obtain more complete documentation of the prescription of these drugs and other related information on the mother and child. As this information is updated into

the HIV/AIDS Reporting System (HARS), future data runs may depict higher percentages of HIV-infected mothers and babies who received medical intervention.

Figure 15. Percent of perinatal HIV/AIDS cases born 1996-2003, who received any ZDV and/or other antiretroviral therapies*, Florida (N=268).



*2003 data not complete due to reporting lag.
 **The same child can be in multiple categories

Missed Opportunities

There are several possible missed opportunities where interventions could have taken place to prevent HIV perinatal transmission among HIV/AIDS cases born 2000 – 2003 (Table 4). These data include three immigration cases (cases born outside the United States). These cases are counted in the Florida data because they were diagnosed with HIV as a resident in Florida, however, since the pregnancy and birth did not take place in Florida, the mothers did not access our services during pregnancy. Other missed opportunities include: inadequate prenatal care, no prenatal antiretroviral therapies (ART), no ART at delivery, no neonatal ART, and/or the mother breast-fed. Other contributing factors include: the mother abused drugs and/or she acquired a sexually transmitted disease (STD) during her pregnancy.

Table 4. Possible Missed Opportunities to Prevent Perinatal Transmission of HIV Among HIV/AIDS Cases Born 2000-2003, Florida (N=92).

Missed Opportunities	Number*	Percent
Immigrant Peds (born outside of US)	3	3%
Mom's HIV Status NOT Known Before Birth	21	23%
Inadequate Prenatal Care**	63	68%
No Prenatal ART	55	60%
No ART at Delivery	45	49%
No Neonatal ART	32	35%
Breast Fed	8	9%
Other Contributing Factors	Number***	Percent
Mom was a substance abuser	22	24%
Mom acquired an STD	31	34%
TOTAL BIRTHS 2000 - 2003*	92	100%
* 2003 data not complete due to reporting lag.		
** Inadequate prenatal care indicates prenatal care after the 4th month and less than 50% of expected visits		
***The same child can be in multiple categories		

AIDS-Defining Conditions

The most commonly reported AIDS-defining conditions among all pediatric AIDS cases reported through 2003 are listed below (Table 5). Some children may have had more than one condition; therefore the total exceeds 100%. Nearly one-third (28%) of children with AIDS have been diagnosed with pneumocystis pneumonia (PCP). More than one-fourth (26%) were diagnosed with recurrent bacterial infections, 23% with esophageal candidiasis and 21% with wasting syndrome. The list of conditions presented is based on cumulative data since the beginning of the epidemic; however, the most commonly reported conditions for children diagnosed in 2003 have not changed much from those reported in earlier years.

Table 5. Prevalence of AIDS defining conditions most commonly reported among children <13 years of age, reported through 2003, Florida, N=1,584.

DISEASE / CONDITION	NUMBER	% OF CASES
Pneumocystis pneumonia	452	28%
Bacterial infections	418	26%
Candidiasis, esophageal	365	23%
Wasting syndrome	336	21%
Lymphoid interstitial pneumonia	293	18%
HIV encephalopathy	238	15%
Cytomegalovirus disease	129	8%
Herpes simplex	99	6%
Candidiasis, bronchi or lungs	79	5%
Cryptosporidiosis	77	5%

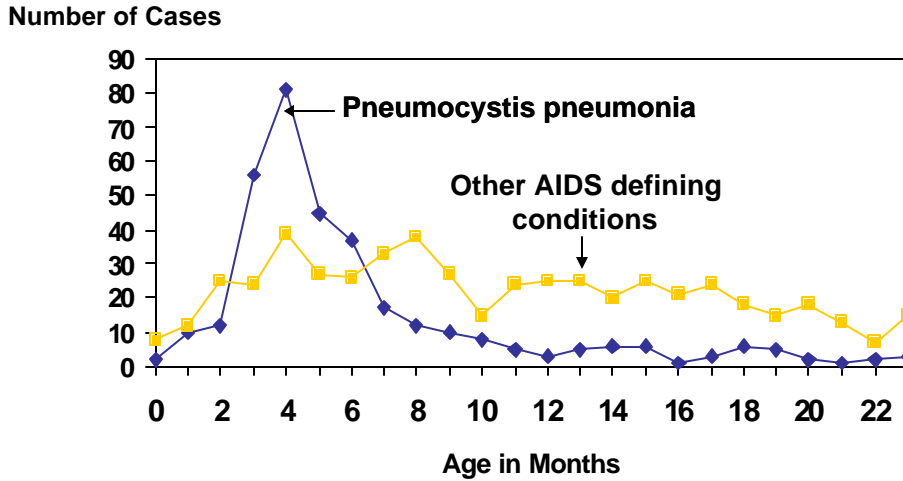
Note: data are NOT mutually exclusive, many cases have more than 1 disease.

*Include cases in persons aged >12 yrs. at AIDS diagnosis with a ped risk aged <=12, (N=115).

**2003 data are provisional. Data as of 07/31/04.

The peak of PCP in children with perinatally acquired AIDS is four months of age (Figure 16). The age at diagnosis for the other AIDS-defining conditions is much more evenly distributed during the first two years of life. Because of the early presentation of PCP, recommendations for all perinatally HIV-exposed children are for PCP prophylaxis to begin at six weeks of age. Once the child is proven to be uninfected, the PCP prophylaxis is discontinued. Early diagnosis, treatment and care of an HIV perinatally-infected child is crucial for helping to delay the onset of AIDS in that child.

Figure 16. AIDS defining conditions among perinatally-acquired AIDS cases under age two, by age at diagnosis, reported through 2003, Florida, N=862.

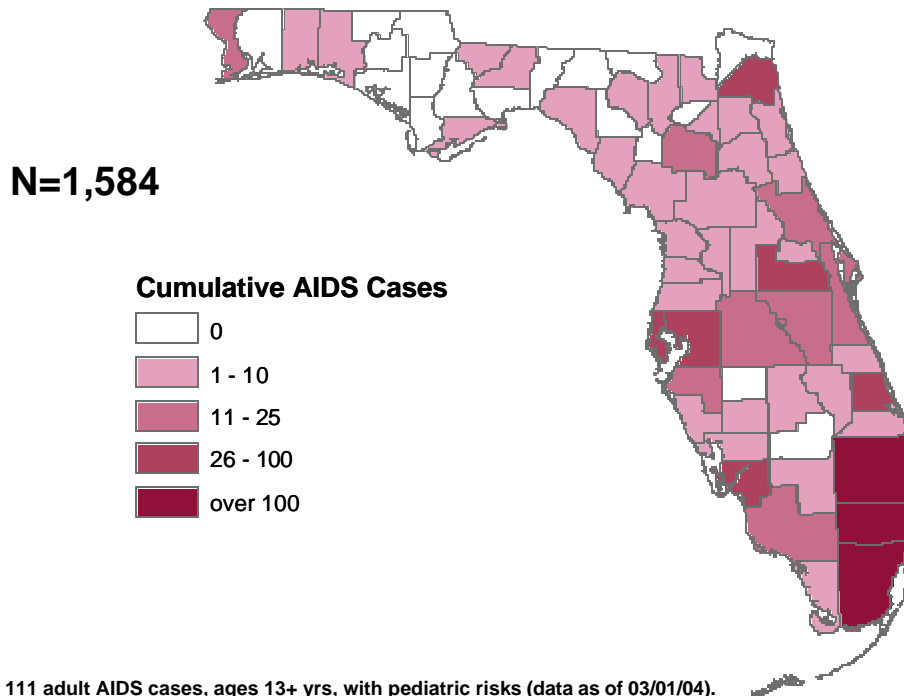


Distribution of Pediatric AIDS and HIV in Florida

Pediatric AIDS

Florida has reported a total of 1,584 pediatric (infected under <13 years) AIDS cases through 2003, with the majority (65%) of these cases reported from Miami-Dade (N=528), Broward (N=269) and Palm Beach (N=227) counties (Figure 17).

Figure 17. Cumulative reported pediatric AIDS cases by county, Florida, through 2003.

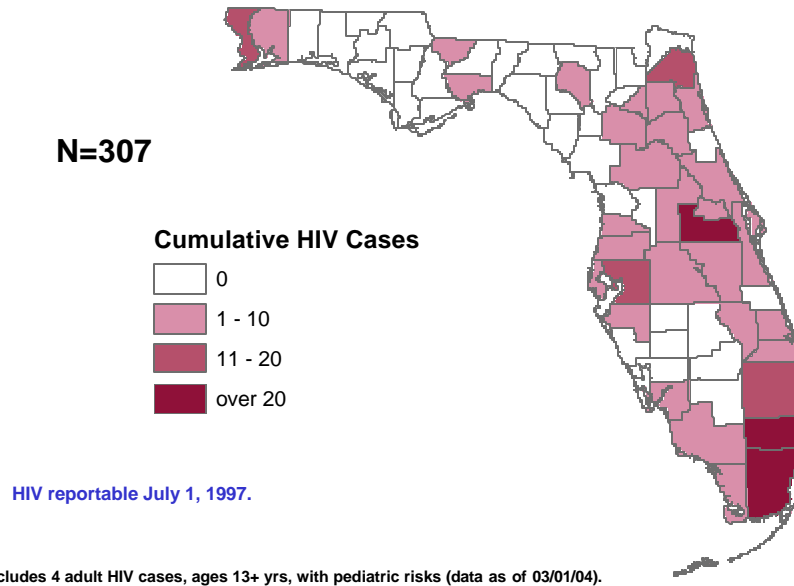


*Includes 111 adult AIDS cases, ages 13+ yrs, with pediatric risks (data as of 03/01/04).

Pediatric HIV

Florida has reported a total of 307 pediatric (infected under <13 years) HIV cases from July 1997 through 2003, with the majority (61%) of these cases reported from Miami-Dade (N=117), Broward (N=45) and Orange (N=25) counties (Figure 18). Other counties with a high number of reported HIV pediatric cases included: Hillsborough (N=17), Palm Beach (N=17), Duval (N=13) and Escambia (N=12).

Figure 18. Cumulative reported pediatric HIV cases by county, Florida, July 1997 through 2003.



Although there have been significant decreases in perinatal births since 1992, each of the top reporting areas have reported at least one perinatal HIV case since 2000. As noted above, efforts will continue to be made to educate providers to know the HIV status of all women during their pregnancy and at delivery and offer the best treatment available to aid in preventing vertical transmission.

Table 6. Perinatal HIV/AIDS Cases by Reporting Area of Diagnosis.

REPORTING AREA	BORN 2000-2003		BORN THRU 2003	
	# OF CASES	% OF TOTAL	# OF CASES	% OF TOTAL
Area 01*	3	3%	34	2%
Area 03*	4	4%	30	2%
Area 08 (Lee Only)	2	2%	30	2%
Area 08 (not Lee)*	1	1%	39	2%
Area 15*	7	8%	57	3%
Broward County	15	16%	311	17%
Duval County	6	7%	79	4%
Hillsborough/Pinellas Counties	8	9%	125	7%
Miami-Dade County	28	30%	633	35%
Orange County	6	7%	83	5%
Palm Beach County	4	4%	236	13%
Polk	1	1%	27	1%
REMAINDER OF STATE	7	8%	145	8%
TOTAL CASES	92	100%	1,829	100%

*Area 1 = Escambia, Okaloosa, Santa Rosa & Walton Counties;

*Area 3 = Alachua, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Levy, Putnam Suwannee, & Union Counties;

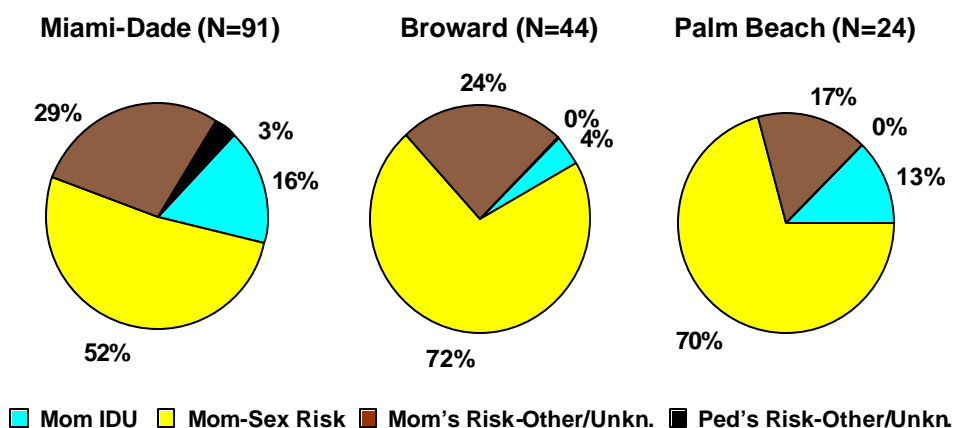
*Area 8 (not Lee) = Charlotte, Collier, DeSoto, Glades, Hendry & Sarasota Counties.

*Area 15 = St. Lucie, Indian River, Martin, and Okeechobee Counties.

Pediatric HIV/AIDS in South Florida

A total of 159 pediatric HIV/AIDS cases born between 1996 and 2003, were reported in Miami-Dade, Broward and Palm Beach counties, representing 63% of the 300 HIV and AIDS cases born in Florida during this time period. Overall, 98% of the pediatric HIV/AIDS cases reported from these three counties were perinatally acquired, although there are some variations by county (Figure 19). Among the three counties, Miami-Dade County represented the highest proportion (16%) of mothers with an injection drug use risk; whereas Broward County represented the highest proportion (72%) with a heterosexual risk.

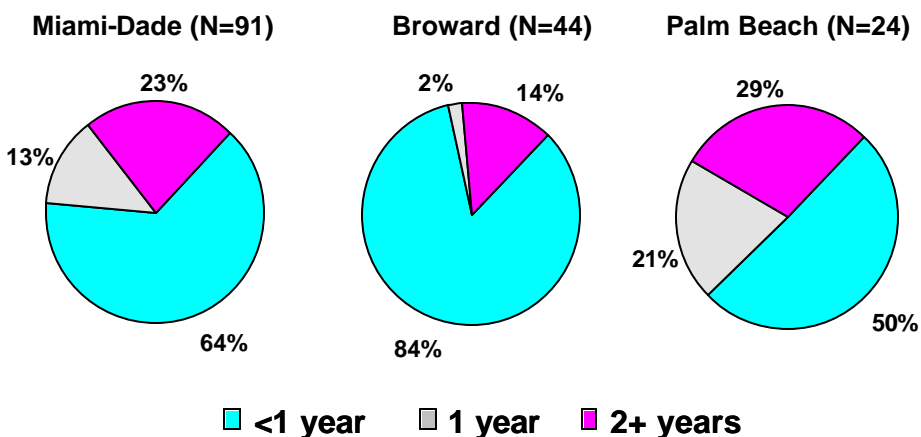
Figure 19. Mother's Exposure Category for Pediatric HIV/AIDS Cases Reported in Miami-Dade, Broward, and Palm Beach Counties, Born 1996 through 2003, (N=159).



*2002 data not complete due to reporting lag.

Two-thirds (67%, or 107 of 159) of the pediatric HIV/AIDS cases reported in South Florida were reported in the first year of life (Figure 20). As noted earlier, an early diagnosis of perinatally-acquired HIV infection allows the opportunity of early treatment, thus possibly prolonging the onset of AIDS.

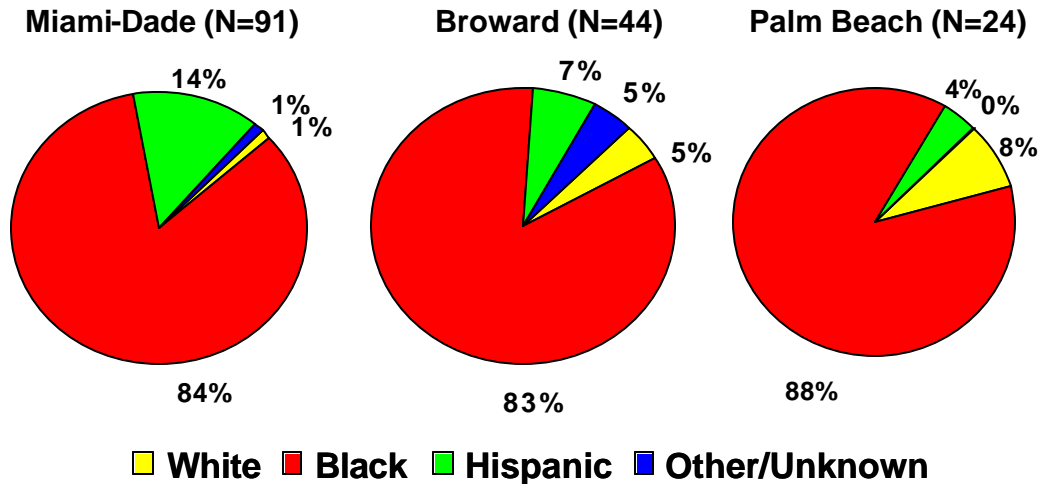
Figure 20. Pediatric HIV/AIDS Cases by Age at Diagnosis, Reported in Miami-Dade, Broward, and Palm Beach Counties, Born 1996 through 2003, (N=159).



*2002 data not complete due to reporting lag.

As previously mentioned, pediatric AIDS in Florida disproportionately affects non-Hispanic blacks. In South Florida, more than three-fourths (84% or 134 of 159) of the pediatric HIV/AIDS cases were among blacks (Figure 21). These data differ greatly from the population by race/ethnicity for women of childbearing age (15-44) living in these counties (Table 7).

Figure 21. Pediatric HIV/AIDS Cases by Race/Ethnicity, Reported in Miami-Dade, Broward, and Palm Beach Counties, Born 1996 through 2003, (N=159).



*2002 data not complete due to reporting lag.

Table 7. Percent of Population of Women of Childbearing Age* (15-44) by Race/Ethnicity for Miami-Dade, Broward and Palm Beach Counties.

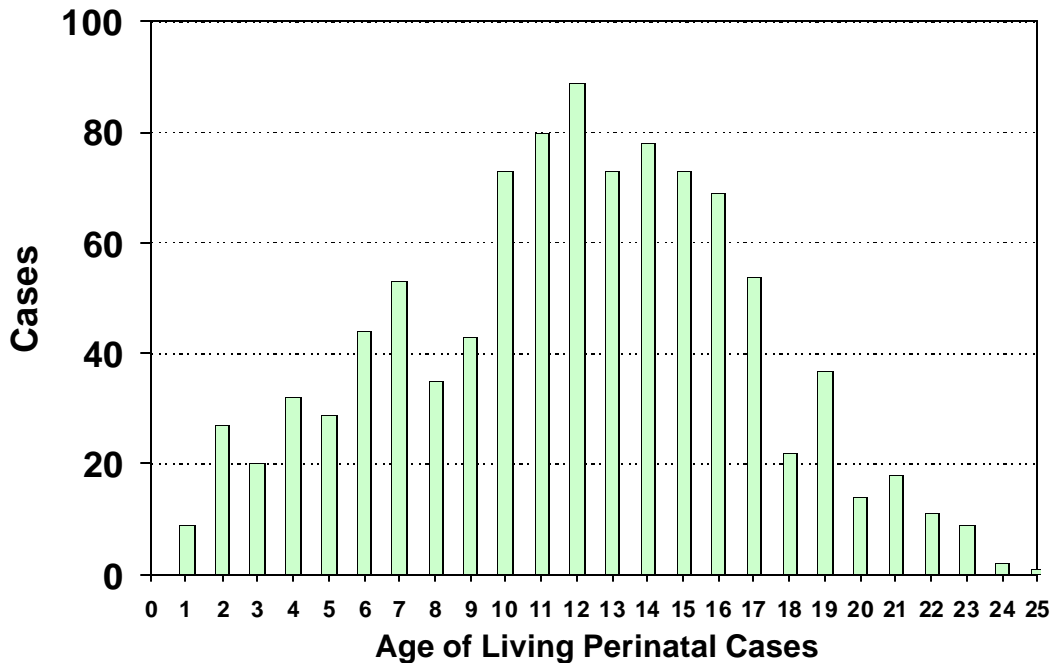
	White	Black	Hispanic	Other	Total
Miami-Dade	17%	21%	59%	4%	100%
Broward	49%	25%	20%	6%	100%
Palm Beach	61%	18%	16%	5%	100%

*Based on 2000 Census Data

Prevalence of Perinatal HIV/AIDS Cases in Florida

As of July 31, 2003, there were 995 perinatal HIV/AIDS cases in Florida who were reported and are presumed to be living through 2003. Their current ages range from 1 year to 25 years (Figure 22). Of these living cases, 66 AIDS and 5 HIV cases weren't reported until after age 12. Access to antiretroviral medications and prophylaxis against opportunistic infections has aided in prolonging the life of many of these perinatal cases.

Figure 22. Current age distribution* of persons presumed to be living with perinatal HIV/AIDS, reported through 2003, as of 07/31/04, Florida, (N=995).



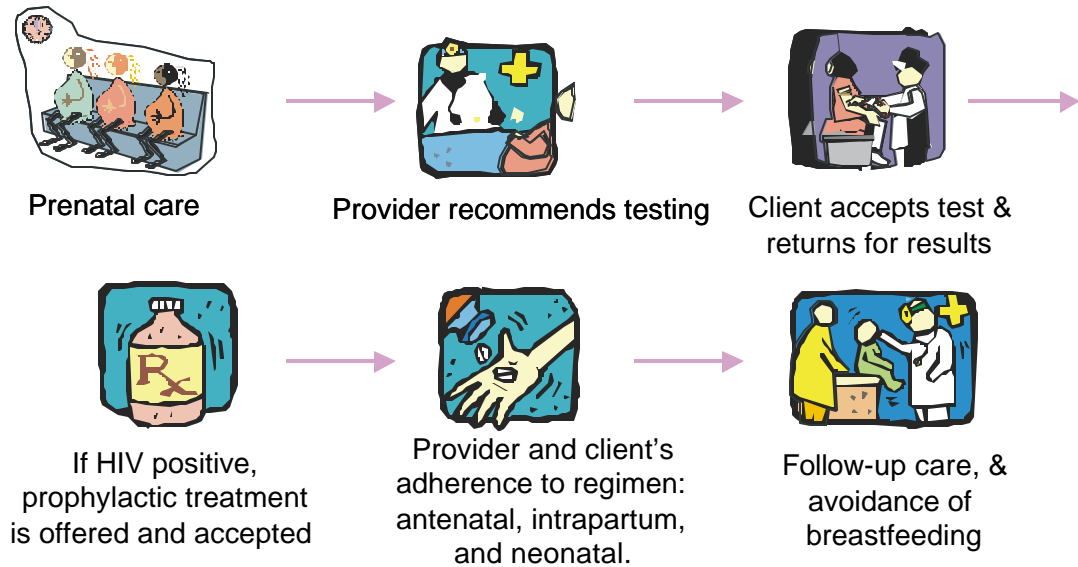
*Current age as of 07/31/04 of presumed living HIV/AIDS cases reported through 2003.

Note: Of these living cases, 66 AIDS and 5 HIV cases were not reported until after age 12.

Prevention is the Key to Success

Without appropriate medical therapy, about 30% of babies born to infected mothers in Florida will be HIV infected. Infection can occur at any time during the pregnancy (usually preceding or during delivery), and can also occur through breast-feeding. Because infection can occur through breast milk, women with HIV are strongly encouraged not to breast feed their children. Even with proper prenatal care and treatment, approximately 2% of babies born to HIV-infected women will become infected. Prevention is the key to success (Figure 24).

Figure 24. Steps to prevention success



Since 1994, Florida has had a comprehensive perinatal HIV prevention program designed to reduce the incidence of perinatal HIV transmission in the state. This comprehensive program is two-pronged; targeting both health care providers and consumers for education and support. The availability of Enhanced Perinatal Surveillance data, collected by local surveillance staff on all HIV-infected infants and a sample of exposed infants, has been particularly helpful in directing the Bureau of HIV/AIDS perinatal HIV prevention activities.

The Florida Department of Health contracts with the Florida/Caribbean AIDS Education and Training Center (AETC) to educate health care providers who care for pregnant women, about HIV testing and treatment guidelines. The goal of the AETC project is to deliver innovative training methods to health care providers, community-based organizations, and perinatal organizations, on Florida's requirements for the HIV testing of pregnant women, and the most up-to-date treatment options for reducing perinatal HIV transmission. In addition, the AETC is targeting hospital labor and delivery units for intensive technical assistance to promote appropriate intrapartum care and to assist in the development of written protocols, in particular the implementation of rapid testing for women presenting at delivery with no record of a blood test for HIV during pregnancy, and women with no prenatal care. The AETC has created a

number of social marketing materials for consumers and providers that incorporate information on the Florida statute pertaining to the HIV testing of pregnant women.

The AETC data presented were extracted from participant information forms that are completed by trainees at each training event. The data show the professional disciplines of providers trained, the number of training events conducted, the number of hours dedicated to training for each year of funding, the employment setting of trainees and the number of providers trained each year between 2000 and 2003. Table 8 summarizes the provider training events by discipline. It also shows the number of training events completed each year as well as the total number of training hours. Table 9 shows the principal employment setting of the providers trained.

Table 8. Florida/Caribbean AETC Perinatal Training by Professional Discipline, 2000 – 2003.

Table 1	2000		2001		2002		2003	
	Total	%	Total	%	Total	%	Total	%
Professional Discipline								
Physicians	13	27.7	149	21.1	48	4.0	231	11.7
Physician Assistants	0	0	6	0.9	5	0.4	7	0.35
Advanced Practice Nurses	7	14.9	31	4.4	60	5.0	98	5.0
Nurses	12	25.5	331	47.0	556	46.1	708	35.8
Other Health	3	6.4	99	14.0	241	20	284	14.4
Non Health	2	4.3	14	2.0	71	5.9	71	3.6
No Response/Unknown	10	21.2	75	10.6	224	18.6	578	29.2
Total Providers Trained	47	100.0	705	100.0	1205	100.0	1977	100.0
# of training events	4		28		57		152	
# of training hours	4		32.5		69.25		253.25	

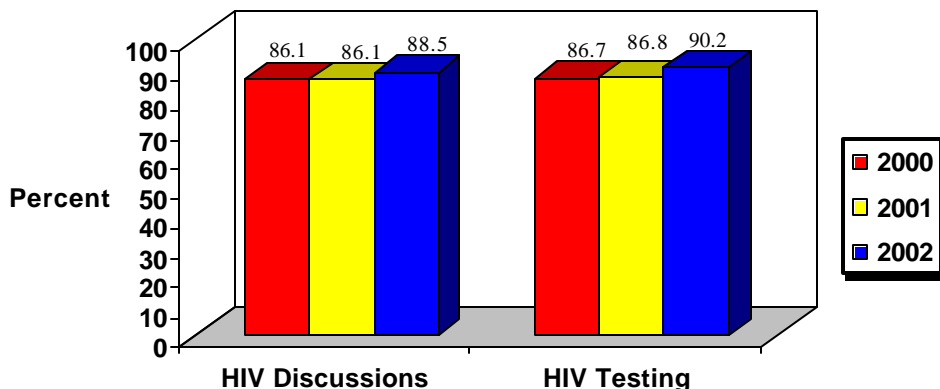
Table 9. Florida/Caribbean AETC Perinatal Training by Employment Setting, 2000 – 2003.

Table 2	2000		2001		2002		2003	
<i>Principal Employment Setting</i>	<i>Total</i>	<i>%</i>	<i>Total</i>	<i>%</i>	<i>Total</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Community Based Organization	6	12.8	26	3.7	81	6.7	59	3.0
Community/Migrant Health Center	0	0	64	9.1	49	4.1	137	6.9
Community Mental Health Center	0	0	6	0.9	20	1.7	10	0.5
Corrections Facility	6	12.8	32	4.5	1	0.1	31	1.6
Health Care for the Homeless	0	0	1	0.1	0	0	0	0
HMO/Managed Care	0	0	2	0.3	26	2.2	8	0.4
Home Health	0	0	1	0.1	0	0	0	0
Hospital/Hospital Based Clinic	13	27.6	229	32.5	355	29.5	748	37.8
MCH/Family Planning	0	0	3	0.4	0	0	0	0
Non-Health	1	2.1	3	0.4	55	4.6	28	1.4
Mental Health Facility	0	0	1	0.1	0	0	0	0
Not Working	1	2.1	14	2.0	71	5.9	29	1.5
Other Health Care	2	4.3	29	4.1	106	8.8	69	3.5
Other Public Health Agency	4	8.5	53	7.5	38	3.2	107	5.4
Social Service Agency	1	2.1	4	0.6	0	0	0	0
Solo/Group Private Medical Practice	3	6.4	119	16.9	155	12.8	127	6.4
STD/Family Planning Clinic	0	0	19	2.7	9	0.7	11	0.6
Substance Abuse Treatment	0	0	1	0.1	8	0.6	25	1.3
Tribal/Indian Health Service	0	0	19	2.7	0	0	0	0
No Response/Unknown	10	21.3	79	11.2	231	19.1	588	29.7
Total Providers Trained	47	100.0	705	100.0	1205	100.0	1977	100.0

The University of Florida recently completed a two-part study to review policies and procedures for HIV counseling, testing and treatment of pregnant women in select Florida hospitals. The first part included a review of written policies and protocols, as well as interviews with key staff; the second part of the study included chart reviews to study actual hospital practices. In addition, the University of Florida has completed a survey of prenatal care providers, including physicians, midwives, and nurse practitioners on HIV testing practices for pregnant women. The studies are now a component of the spectrum of data utilized to direct Florida's perinatal HIV prevention activities. Both reports may be accessed on the Bureau of HIV/AIDS perinatal website.

Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) indicate that Florida's HIV testing rates for pregnant women have increased significantly over the past few years. PRAMS is a joint surveillance project between the Florida Department of Health and the U.S. Centers for Disease Control and Prevention designed to monitor the physical, economic, and social health of Florida's mothers and newborns. Figure 25 shows the percentage of women surveyed who state their prenatal care provider discussed HIV testing with them and the percentage of women who state they were tested for HIV, during their most recent pregnancy.

Figure 25. PRAMS: Healthcare Provider Discussions About HIV Testing, and Pregnant Women Tested for HIV in Florida, 2000-2002



In addition to providing education and technical assistance to healthcare providers, Florida’s perinatal HIV prevention program also targets pregnant women for education. The “We Make the Change” perinatal social marketing campaign is implemented in counties with the highest incidence of HIV and AIDS cases in women of childbearing age and in emerging at-risk communities. Two new radio commercials, “Grandma” targeting African American women and “Sisters” targeting Hispanic women, incorporate a message on the Florida statute requiring pregnant women to be offered HIV testing at the initial prenatal visit and again at 28 – 32 weeks gestation.

The Bureau of HIV/AIDS has initiated a number of projects to address the underlying issues that place pregnant women at risk for HIV. Through enhanced collaborative activities with the Office of Infant, Maternal and Reproductive Health and other state partners, information on the importance of HIV testing and the availability of treatment for HIV-infected pregnant women is being disseminated to healthcare providers and consumers statewide, and barriers to the care and treatment of HIV-infected pregnant women are being addressed at both the community and state levels. In 2002 and 2003, a series of fourteen perinatal community integration meetings were held around the state bringing together health and social service providers working with pregnant women. Meeting participants discussed barriers to high-risk women accessing health care and began work on the development of effective client referral and linkage systems. As a result, multiple projects at both the state and community levels were initiated to address these issues of concern. Coordinators of the community meetings were recently brought together to share best practices and lessons learned, and to discuss ongoing barriers. The community resources, model protocols and reports from the integration meetings are available on the Bureau of HIV/AIDS perinatal website.

In 1999, the Targeted Outreach for Pregnant Women Act (TOPWA) program was established to find at-risk or HIV-infected pregnant women who are not receiving adequate prenatal care, and link them with services. The TOPWA program is currently in twelve Florida counties with

twelve community-based organizations providing services. Through 2003, TOPWA providers conducted over 24,000 outreach sessions in high-risk venues where the targeted population was likely to be found. Close to 96,000 women were screened for TOPWA and provided information on the importance of early and ongoing prenatal care, HIV prevention for women and preventing mother-to-child transmission, and the dangers of substance abuse. In order to identify pregnancy as early as possible, TOPWA conducted over 17,500 on-site pregnancy tests for women unsure of their pregnancy status, identifying 3,496 pregnant women.

Over 13,500 high-risk or HIV-infected pregnant women have been enrolled in TOPWA and assessed to determine their level of risk and service needs. Figure 26 shows the race/ethnicity of women screened for and enrolled in the TOPWA program. The program's emphasis on minority groups reflects the high numbers of non-white women becoming infected with HIV in Florida, and the Department of Health's commitment to eliminate racial and ethnic health disparities.

Figure 26. Proportion of women screened and enrolled in TOPWA by race/ethnicity, 1999-2003.

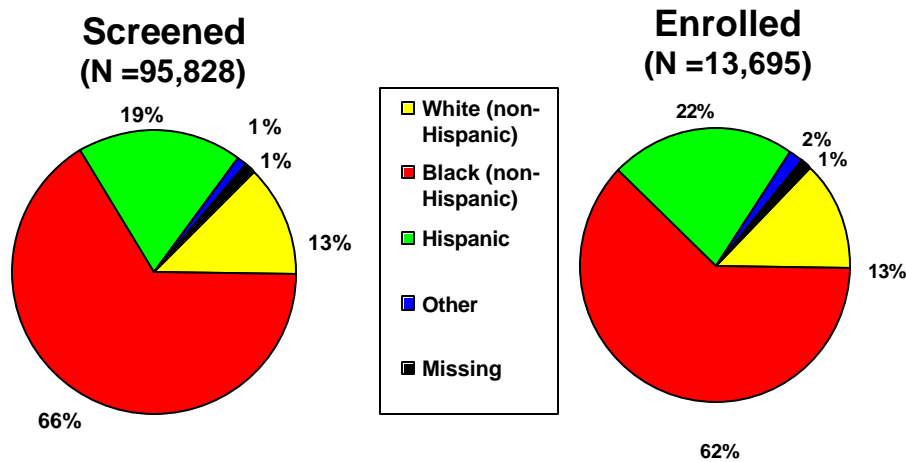
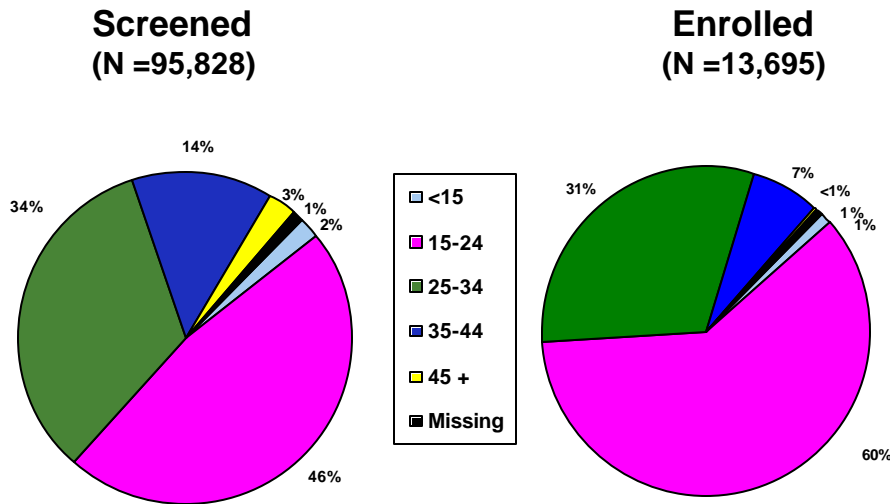


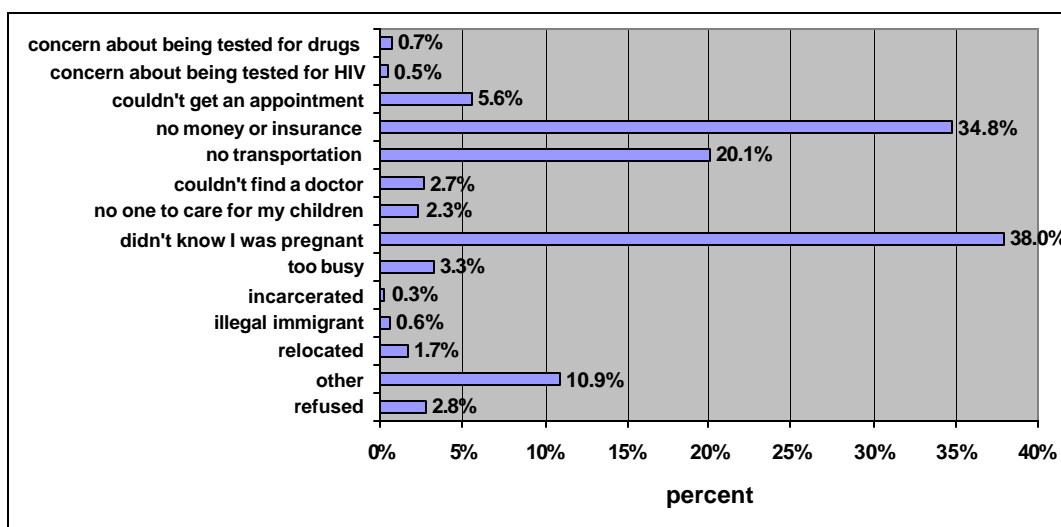
Figure 27 shows the age of women screened for and enrolled in the TOPWA program. Although 48% of women screened for TOPWA are age twenty-four and under, 61% of enrolled women are in this age group, reflecting TOPWA's focus on the most at-risk pregnant women. In addition, over 20% of enrolled pregnant women and close to 10% of enrolled HIV-infected pregnant women have been eighteen years of age and younger.

Figure 27. Proportion of women screened and enrolled in TOPWA by age, 1999 – 2003.



Of enrolled pregnant women, 43% were not in prenatal care at the time of TOPWA assessment. Figure 28 shows reasons given by TOPWA clients for not receiving adequate prenatal care (clients had the option to choose more than one category). The primary reason for inadequate care was not knowing pregnancy status, followed by no money or insurance to pay for prenatal care visits and not having transportation. All these issues are addressed by the TOPWA providers who assist clients with Medicaid and PEPW (Presumptive Eligibility for Pregnant Women) enrollment, or attempt to locate alternative prenatal care coverage. Providers often provide translation services to immigrant women facing language barriers to assist them in the enrollment process. Free on-site pregnancy testing is offered to all women to ensure early access to prenatal care services. Transportation to prenatal care appointments is provided when identified as a barrier to the client accessing care. Additional TOPWA data [not shown] indicate 54% of enrolled women had less than a high school education, 85% had an annual income of less than \$10,000, and 66% were unemployed at the time of assessment. Low levels of education and minimal employment skills place women at a disadvantage and at risk for poor health outcomes. TOPWA providers focus on empowering women to not only access needed services, but also to address the underlying issues that place them at risk such as domestic violence, substance abuse, homelessness, or for immigrant women a non-citizen status.

Figure 28. Reasons for no/inadequate prenatal care among women enrolled in TOPWA, 1999-2003 (N=13,695).



Enrolled TOPWA clients received close to 19,000 referrals, actively linking them to prenatal care and other needed services. All TOPWA referrals are tracked to ensure completion and clients followed through birth of the infant; HIV-infected clients are followed until there is a confirmed HIV status for the infant. In addition to street outreach, TOPWA program providers develop relationships with community agencies and health clinics that refer potential clients. Linkages with local county jails, domestic violence shelters, substance abuse centers, immigrant centers, the Healthy Start program, the WIC program, and other health and social service agencies have enabled TOPWA providers to access the target population and effectively link clients with services. The TOPWA program plays a particular role in locating clients that have fallen out of prenatal care or HIV/AIDS services and through partnerships with prenatal care clinics, Title IV providers and infectious disease specialists, will assist clients to return to care.

The TOPWA program offers on-site HIV testing with OraSure, allowing at-risk women to know their status in order to protect their health and the health of their children. Through December 2003, over 10,000 HIV tests had been conducted identifying 219 HIV-infected women. Over one quarter of the pregnant women enrolled in TOPWA had never been tested for HIV, and close to one third of the women identified as HIV positive through OraSure testing were also pregnant. Three hundred and sixty pregnant women known to be HIV infected have been enrolled in TOPWA.

In 2002, the first funded TOPWA jail program was established at the Palm Beach County jail. Since then, TOPWA programs have been implemented on-site at the Orange County jail, the Hillsborough County jail and the Miami-Dade County jail. All other TOPWA providers are required to link with either their local HIV/AIDS Jail Linkage program or directly with their county jail, to enroll incarcerated pregnant women upon release. The on-site jail programs screen female inmates for the TOPWA program and offer HIV testing with OraSure and pregnancy testing. Upon release, clients who have not yet delivered are linked to health and

social services for ongoing prenatal care. Incarcerated women are particularly at high risk for HIV infection and poor pregnancy outcomes, and this is reflected in the collected data. Through December 2003, the funded TOPWA jail programs had enrolled 287 pregnant women. Forty-eight percent (48%) of enrolled women had not received prior prenatal care, and 43% were using illegal substances at the time of their arrest. Twenty-seven percent (27%) of enrolled women admitted to a history of using crack cocaine. The TOPWA jail programs have conducted over 1,800 HIV tests, with a seropositivity rate of 3.2%.

As a result of these many initiatives, more providers have become in-tune with testing and treating HIV-infected pregnant women. This may have contributed to the significant decreases in annual perinatal births have been observed since 2001 with annual statewide average decreases of 30%. For further information on Florida's perinatal HIV prevention program please contact Frances Walker, M.S., Perinatal HIV Prevention Coordinator, Bureau of HIV/AIDS, Florida Department of Health at (850) 245-4424, or visit the Bureau of HIV/AIDS perinatal website at http://www.doh.state.fl.us/disease_ctrl/aids/Perinatal/PERINATAL.html