



Epidemiologic Profile on Pediatric* HIV/AIDS Surveillance in Florida, 2014



**Florida Department of Health
Division of Disease Control and Health Protection
Bureau of Communicable Diseases
HIV/AIDS Section - Surveillance Program
4052 Bald Cypress Way, Bin A-09, Tallahassee, FL 32399
Office Phone: 850-245-4430**

For copies of either the pediatric epidemiological profile report and/or the pediatric Microsoft PowerPoint slide show, please visit our website at <http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/index.html> or contact the HIV/AIDS Section, Surveillance Program, Data Analysis Unit at (850) 245-4430.

* HIV/AIDS cases infected UNDER 13 years of age.
Data as of 06/30/2015
Due to reporting lags, 2014 data are provisional.

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Overview

The Florida Department of Health (FDOH), Bureau of Communicable Diseases, HIV/AIDS Section collects, analyzes, and disseminates surveillance data on HIV infection. These surveillance data are one of the primary sources of information on HIV and AIDS in Florida. For instance, HIV and AIDS surveillance data are used by the FDOH's public health partners in other health departments, federal agencies, not-for-profit organizations, academic institutions, and the general public to help focus prevention efforts, plan services, allocate resources, and monitor trends in HIV infection. This epidemiological profile report summarizes information about perinatally acquired HIV infection cases and HIV infection cases classified as AIDS in Florida.

Report Organization

This epidemiologic profile report is organized in to 16 sections which are as follows:

1. Interpretation of HIV/AIDS Data
2. Worldwide View: Impact of HIV/AIDS Among Children (Ages 0 – 14)
3. Pediatric HIV/AIDS Cases in the United States
4. Pediatric HIV/AIDS Cases in Florida
5. AIDS-Defining Conditions
6. Perinatally Acquired HIV Infected Cases
7. Missed Opportunities
8. Geographical Distribution of Perinatally Acquired HIV Infection Cases in Florida
9. Perinatally Acquired HIV Infection Cases Born in Selected South Florida Counties
10. Prevalence of Perinatally Acquired HIV Infection Cases in Florida
11. The Continuum of HIV Care among Pediatric Cases
12. Prevention is the Key to Success
13. Perinatal Programs for Women
14. Prenatal HIV Testing Among Women during Pregnancy in Florida
15. National AIDS Education and Training Center
16. Targeted Outreach for Pregnant Women Act Program

1. Interpretation of HIV/AIDS Data

All HIV/AIDS data are current as of December 31, 2014.

- HIV infection reporting represents newly reported HIV cases, regardless of AIDS status at time of report.
- HIV infection cases and AIDS cases by year of report are NOT mutually exclusive and CANNOT be added together.
- Frozen databases of year-end data are generated at the end of each calendar year. These are the same data used for Florida Community Health Assessment Resource Tool Set (CHARTS) and all grant-related data where annual data are included.
- HIV prevalence data are generated later in the year, usually in July, when most of the estimated death data are complete.
- Adult cases represent ages 13 and older, pediatric cases are those younger than the age of 13.
- Pediatric AIDS cases include those pediatric HIV cases that have developed AIDS, regardless of age at AIDS diagnosis.
- For data by year, the age is by age at diagnosis.
- For living data, the age is by current age at the end of the most recent calendar year, regardless of age at diagnosis.
- Unless otherwise noted, race/ethnicity reference to white residents and black residents represent persons who are white non-Hispanic and black non-Hispanic, respectively. Also, all references to Hispanic for race/ethnicity represent persons of Hispanic heritage regardless of race.
- Total statewide data will include Department of Correction Cases (DOC) unless otherwise noted. County data will exclude DOC cases.
- HIV incidence estimates are approximations of the numbers of people who are newly infected, which include those whose infection has not yet been diagnosed or reported.

Limitations to Pediatric HIV Surveillance

- HIV/AIDS Surveillance data are always being updated as newly diagnosed pediatric cases are identified, even if years later. As a result, data that were generated previous years ago are outdated.
- The first pediatric AIDS cases was born in 1979, diagnosed in 1982 and reported in 1983.
- HIV (not AIDS) reporting began in July of 1997.

HIV/AIDS Exposure Mode Categories are as follows:

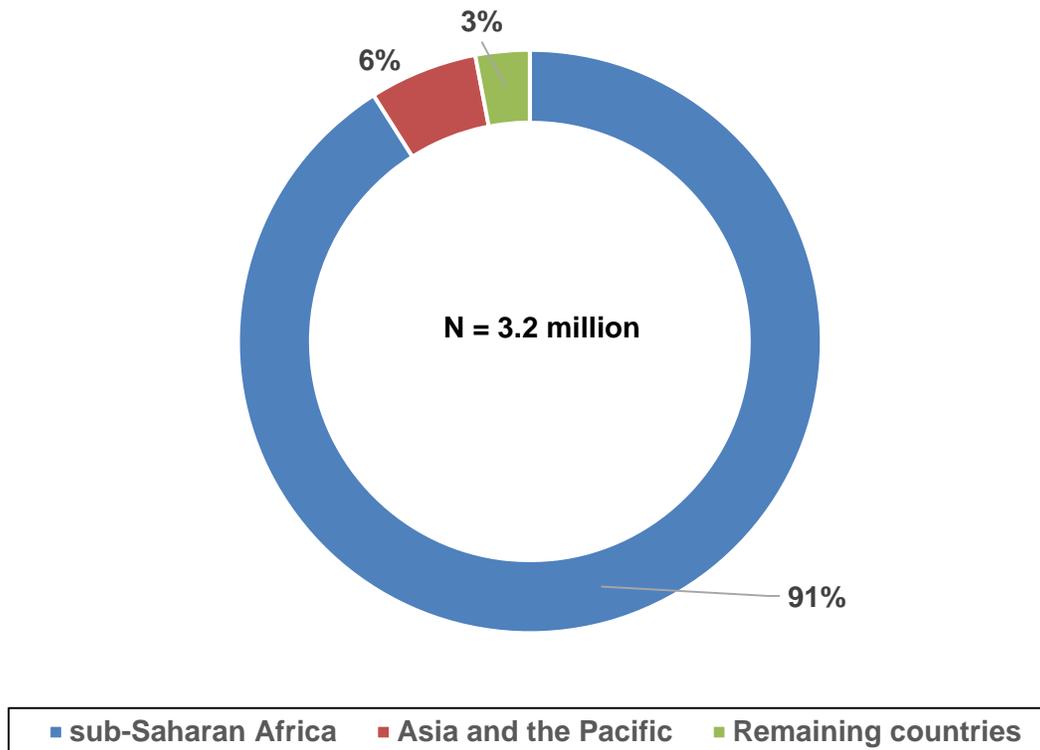
- MSM = Men who have sex with men or male-to-male sexual contact with person with HIV/AIDS or known HIV risk
- IDU = Injection Drug User
- MSM/IDU = Men who have sex with men or male to male sexual contact and injection drug user
- Heterosexual = Heterosexual contact with person with HIV/AIDS or known HIV risk
- Other = Includes hemophilia, transfusion, perinatal, other pediatric risks and other confirmed risks
- NIR = Cases reported with No Identified Risk
- Redistribution of NIRS = This illustrated the effect of statistically assigning (redistributing) the NIRs to recognize exposure (risk) categorized by applying the proportions of historically reclassified NIRs to the unresolved NIRs.

2. Worldwide View: Impact of HIV/AIDS among Children (Ages 0 – 14)

According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), at the end of 2013 there are approximately 3.2 million children younger than 15 years of age living with HIV worldwide, comprising 9.1% of all people living with HIV.¹ Of the 3.2 million children living with HIV, 91% live in sub-Saharan Africa, 6% live in Asia and the Pacific and the remaining 3% are situated in the rest of the world (Figure 1).¹ It is estimated that 650 children become newly infected with HIV and 520 children die of AIDS-related illnesses every day.² Globally there has been progress in stopping new HIV infections among children. In 2013, approximately 240,000 children were newly infected with HIV. This is 58% lower than 580,000 children who became newly infected with HIV in 2002, which was the year with the highest number.¹ UNAIDS estimates that providing access to antiretroviral medicines for pregnant women living with HIV has averted more than 900,000 new HIV infection among children since 2009.¹

Although progress toward preventing the spread of HIV has been made over the years, there are notable shortcomings to overcome. For instance, the number of children receiving antiretroviral therapy is only 24%. There are 76% of children living with HIV are not receiving HIV treatment.¹ Without treatment, about 33% of children living with HIV die by their first birthday and nearly half die by their second.¹

Figure 1. Children (aged 0 – 14 years) living with HIV, Worldwide, 2013



Source: UNAIDS 2013 estimates.

3. Pediatric HIV/AIDS Cases in the United States

According to the Centers of Disease Control and Prevention (CDC) of the estimated 159 pediatric HIV infection cases reported in the United States in 2014, Florida (n=15) ranks third behind California (n=18) and Texas (n=16).⁴ Of the 104 estimated pediatric AIDS cases reported in the U.S. in 2014, Florida (n=10) ranks second behind Tennessee (n=34).⁴ With regard to the number of cumulative pediatric AIDS cases reported through 2014, Florida ranks second behind New York (Table 1).

Table 1. Cumulative Pediatric AIDS Cases for Selected States in the U.S., Reported through 2014

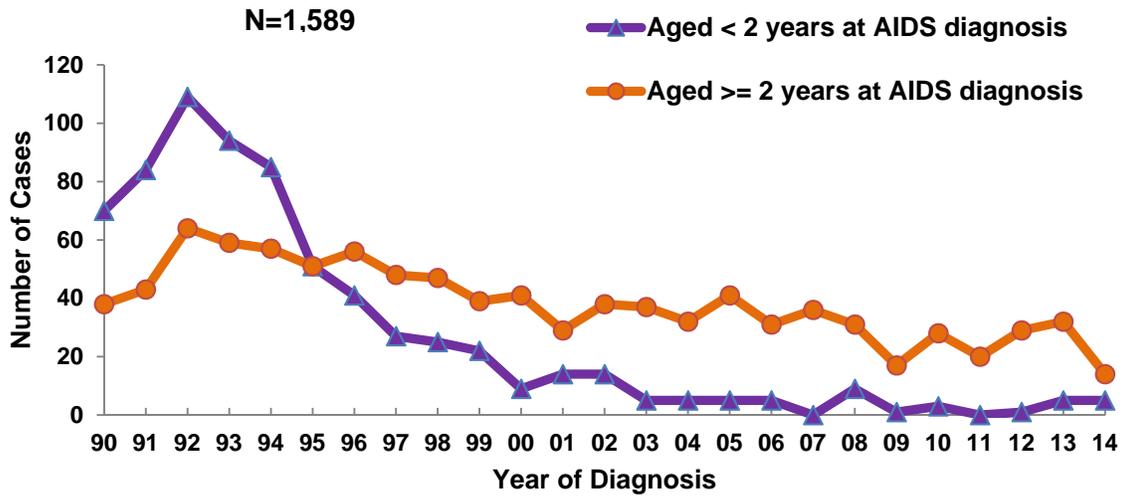
Reporting State	Number of Cases	Percent of Total
New York	2,443	25%
Florida	1,568	16%
New Jersey	806	8%
California	706	7%
Texas	407	4%
Pennsylvania	373	4%
Maryland	338	4%
Illinois	289	3%
Georgia	262	3%
Massachusetts	229	2%
Virginia	191	2%
District of Columbia	196	2%
Remaining States	1,780	19%
Total Cases	9,588	100%

Source: Cumulative Data from CDC, HIV Surveillance Report, 2014, Vol. 26, Table 23

4. Pediatric HIV/AIDS Cases in Florida

The incidence of AIDS in children under age two reached a high of 111 cases in 1992; this decreased to zero cases for children under the age of two since 2007 (Figure 2). HIV testing of pregnant women, combined with the introduction of zidovudine (ZDV) to prevent perinatal HIV transmission, has resulted in an 87% 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. Florida law requires health care providers who attend a pregnant woman to test her for HIV at the initial prenatal care visit and again at 28 – 32 weeks gestation, unless she refuses. Pregnancy Risk Assessment Monitoring System data (PRAMS) indicate that in 2012, approximately 86% of pregnant women received an HIV test during pregnancy.⁵ Pediatric AIDS cases reported at age two and older have also sharply declined since 1994. This is partially due to the maternal use of antiretroviral treatment to prevent perinatal transmission of HIV, as well as the use of prophylactic medicines in HIV-infected pediatric cases to prevent AIDS opportunistic infections.

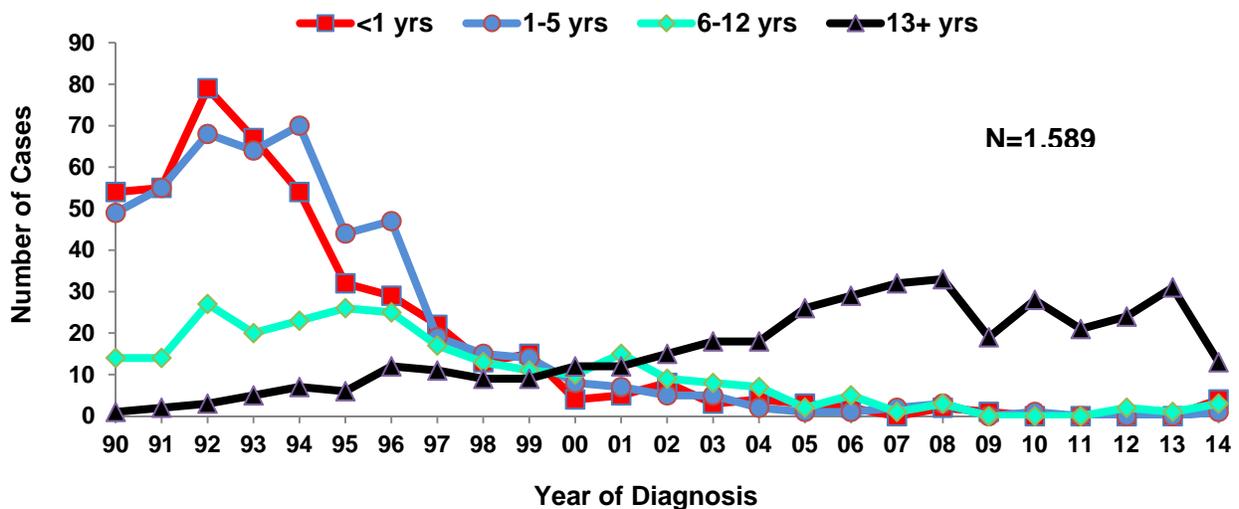
Figure 2. Pediatric AIDS Cases by Age Group at Diagnosis and Year of Diagnosis, 1990 – 2014, Florida



Note: These data represent an 89% decline in pediatric AIDS cases by year of diagnosis from 1992 (n=177) to 2014 (n=21). Due to reporting lags, 2014 data by year of diagnosis are provisional. Data as of 06/30/2015.

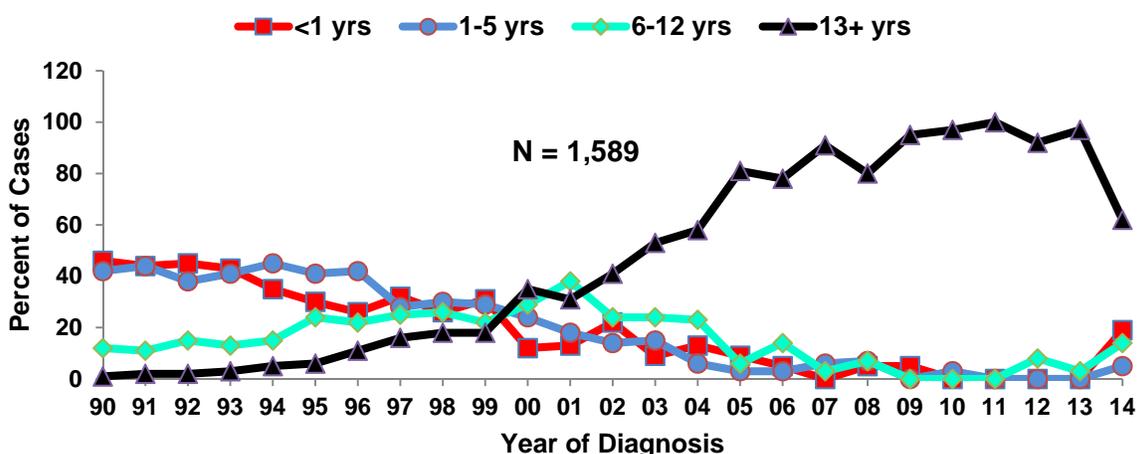
Overall, there has been a steady decrease in the total number of diagnosed pediatric AIDS cases since 1992 (Figure 3). In particular, there has been a steady decrease in the number of pediatric AIDS cases in those under 12 years of age. For example, the actual number of AIDS cases diagnosed in 2014 who were older than the age of twelve is 62, compared to only one AIDS case diagnosed in 1990.

Figure 3. Pediatric AIDS Cases, by Age Group and Year of Diagnosis, 1990 – 2014, Florida



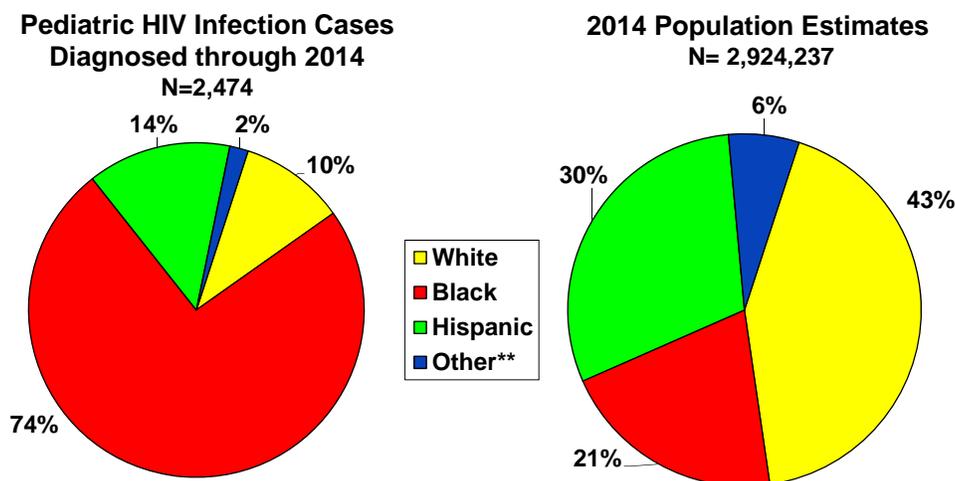
It has been observed that pediatric HIV cases are more likely to not develop AIDS until after age 12. For instance, the proportion of new AIDS cases for those older than age 12 has shown an increasing trend from less than 1% in 1990 to 62% in 2014 (Figure 4). This trend is most likely attributable to early diagnosis of HIV (prior to birth or shortly after) along with the increased use of antiretroviral and other medical therapies that help to delay the onset of AIDS.

Figure 4. Percentage of Pediatric AIDS Cases, by Age Group and Year of Diagnosis, 1990 – 2014, Florida



Of the 2,474 pediatric HIV infection cases diagnosed through 2014, 10% were white, 74% were black, and 14% were Hispanic. When this racial/ethnicity composition is compared with the racial/ethnic distribution of the general population of persons less than 13 years of age in Florida, black children are disproportionately affected by HIV (Figure 5). For example, black children less than 13 years of age make up 21% of the Florida’s 13 and younger population, however they account for 74% of pediatric HIV infection cases.

Figure 5. Pediatric HIV Infection Cases and State Population* in Children Less than 13 Years of Age, by Race/Ethnicity, Diagnosed Through 2014, Florida

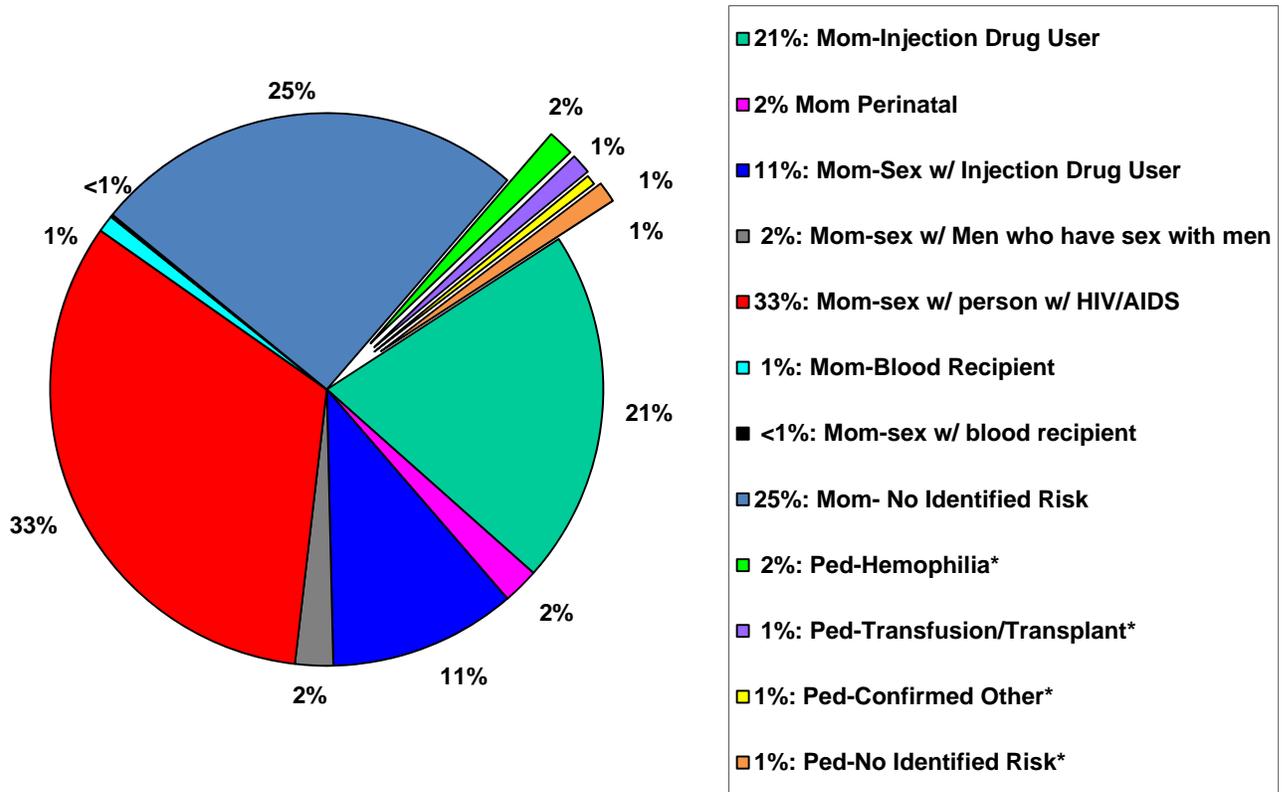


* Source: Population estimates are provided by Florida CHARTS as of 7/9/2015.

** Other includes Asian/Pacific Islanders, Native Alaskans/American Indians and Multi-racial individuals.

Approximately 95% of 2,444 pediatric HIV infection cases reported through 2014 were perinatally acquired. Nearly four percent were related to other confirmed risks, which include hemophilia, transfusion or pediatric sexual abuse cases. The remaining one percent is pending investigation to determine mode of exposure (Figure 6).

Figure 6. Cumulative Pediatric HIV Infection Cases, by “Expanded” Modes of Exposure, Reported through 2014, Florida, N = 2,619



* Note: 5% (exploded pieces) are *NOT* perinatal transmission cases.

5. AIDS-Defining Conditions

Of the 2,619 pediatric HIV/AIDS cases reported through 2014, 1,946 (74%) have developed AIDS. The most commonly reported AIDS-defining conditions among all pediatric AIDS cases reported through 2014 are listed below (Table 2). More than one-fourth (26%) of children with AIDS have been diagnosed with pneumocystis pneumonia (PCP). Nearly one-fourth (22%) were diagnosed with recurrent bacterial infections, 22% with esophageal candidiasis and 19% 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 2014 have not changed much from those reported in earlier years.

Table 2. Prevalence of AIDS-Defining Conditions* Most Commonly Reported among Pediatric Cases, Reported through 2014, Florida

AIDS Defining Condition	# Cases	% Cases
Pneumocystis pneumonia	499	26%
Bacterial infections	432	22%
Candidiasis, esophageal	413	22%
Wasting syndrome	375	19%
Lymphoid interstitial pneumonia	303	16%
HIV encephalopathy	260	13%
Cytomegalovirus disease	144	7%
Herpes simplex	119	6%
Candidiasis, bronchi or lungs	84	4%
Cryptosporidiosis	82	4%
No Disease (Immune suppressed only)**	305	16%
Total Cases	1,946	

Note: Some children may have had more than one condition; therefore the total exceeds 100%.

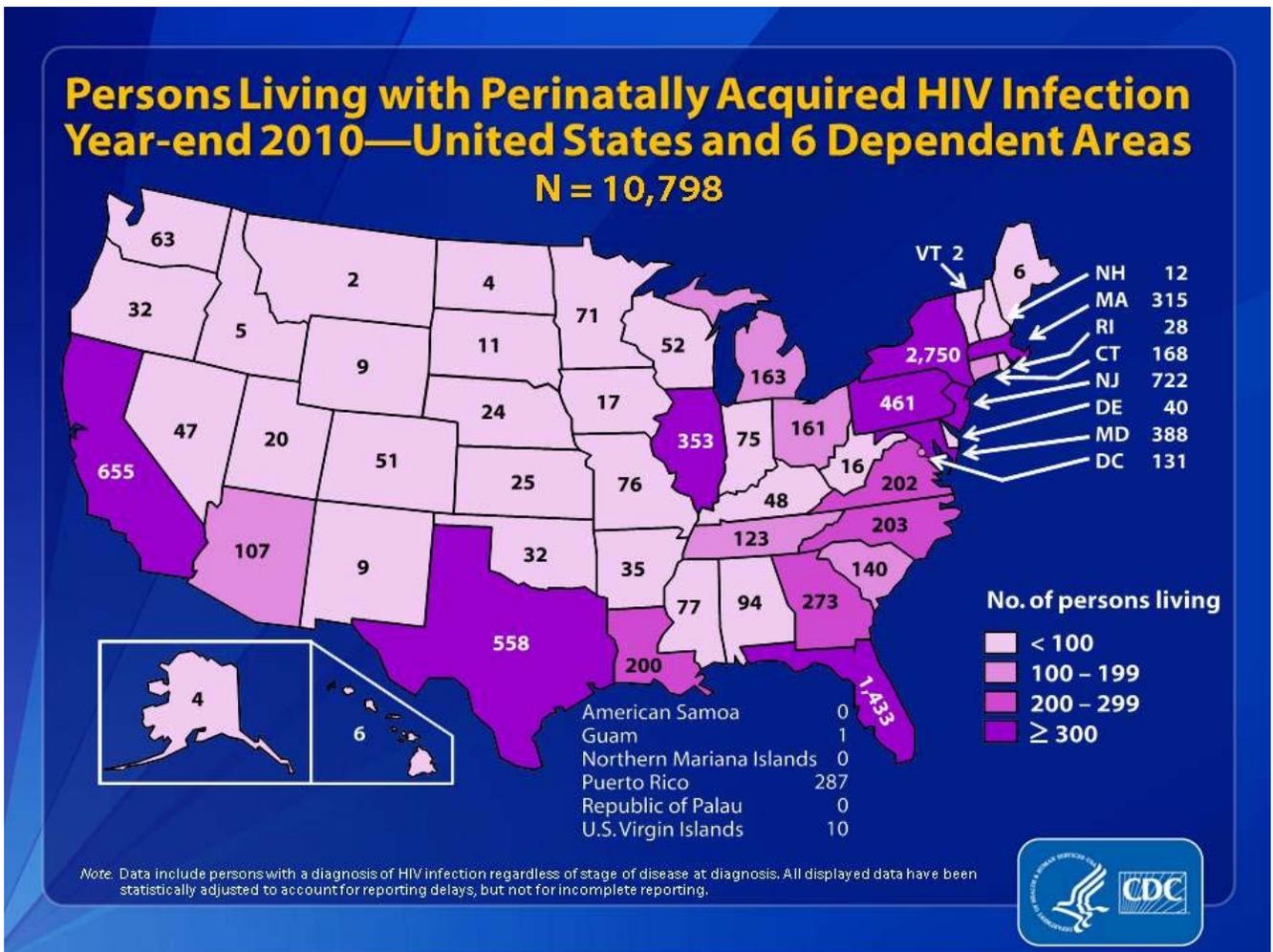
* Data are NOT mutually exclusive, many cases have more than one disease.

** Immune suppressed: CD4 count <200 μ l or CD4 percent <14%.

6. Perinatally Acquired HIV Infected Cases

As of December 31, 2010, an estimated 10,798 persons with perinatally acquired HIV infection were living in the United States and six dependent areas (Figure 7).³ The highest number of persons living with perinatally acquired HIV infections were in New York (n=2,750) and Florida (n=1,433). The lowest numbers were in American Samoa (n=0), the Northern Marian Islands (n=0), the Republic of Palau (n=0), Guam (n=1), Montana (n=2), and North Dakota (n=4).³ A total of 53 perinatally acquired HIV infected babies were born in the United States in 2011, of which 3 were in Florida.

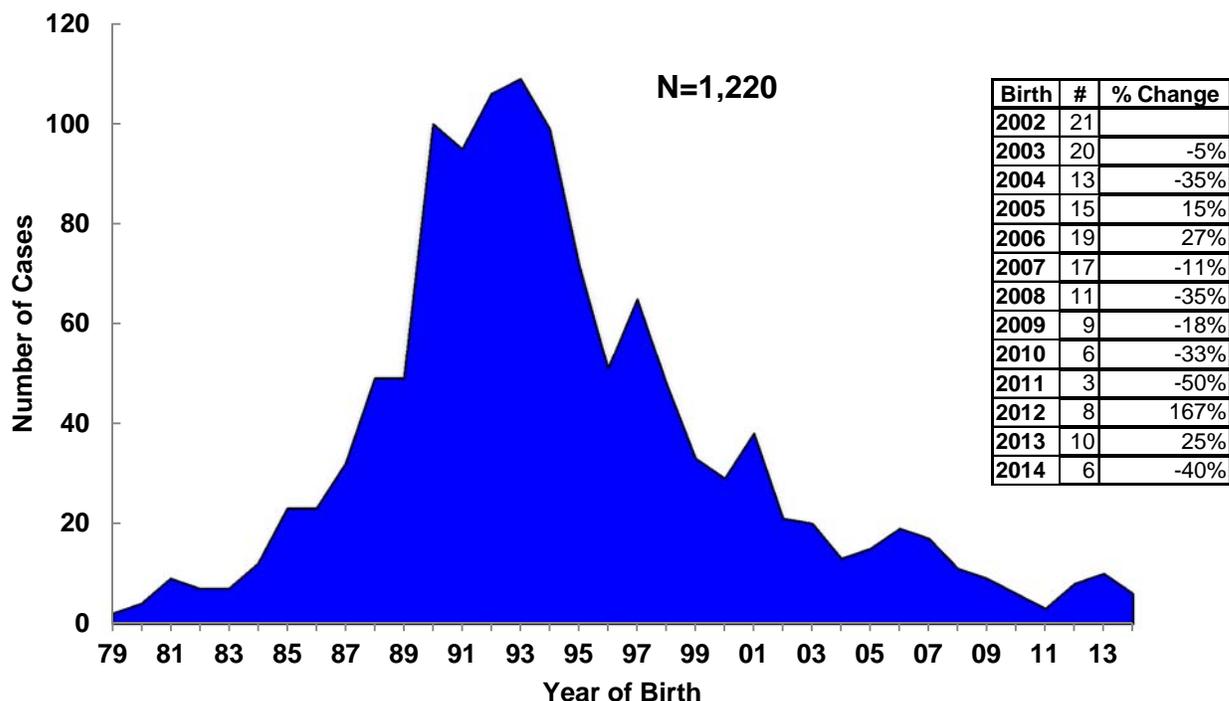
Figure 7. Persons Living with Perinatally Acquired HIV Infection in the U.S., 2010



The documentation of births of babies born in Florida to HIV-infected mothers became reportable by law on 11/20/2006. Of the 1,220 perinatally infected babies born in Florida from 1979 through 2014, two were born as early as 1979. The birth of HIV-infected babies continued to rise through 1993 (Figure 8). In April 1994, the U.S. Public Health Service released guidelines for zidovudine (ZDV) also known as azidothymidine (AZT), used to reduce perinatal HIV transmission, and in 1995 recommendations for HIV counseling and voluntary testing for pregnant women were published. Florida law, beginning in October 1996 required the offering of HIV testing to pregnant women. As a result of this increase in testing for HIV infection, more HIV positive women could be offered ZDV during their pregnancy. Enhanced perinatal surveillance systems have documented increased use of ZDV among exposed infants and HIV-infected mothers at the prenatal, intrapartum, delivery and neonatal stages.

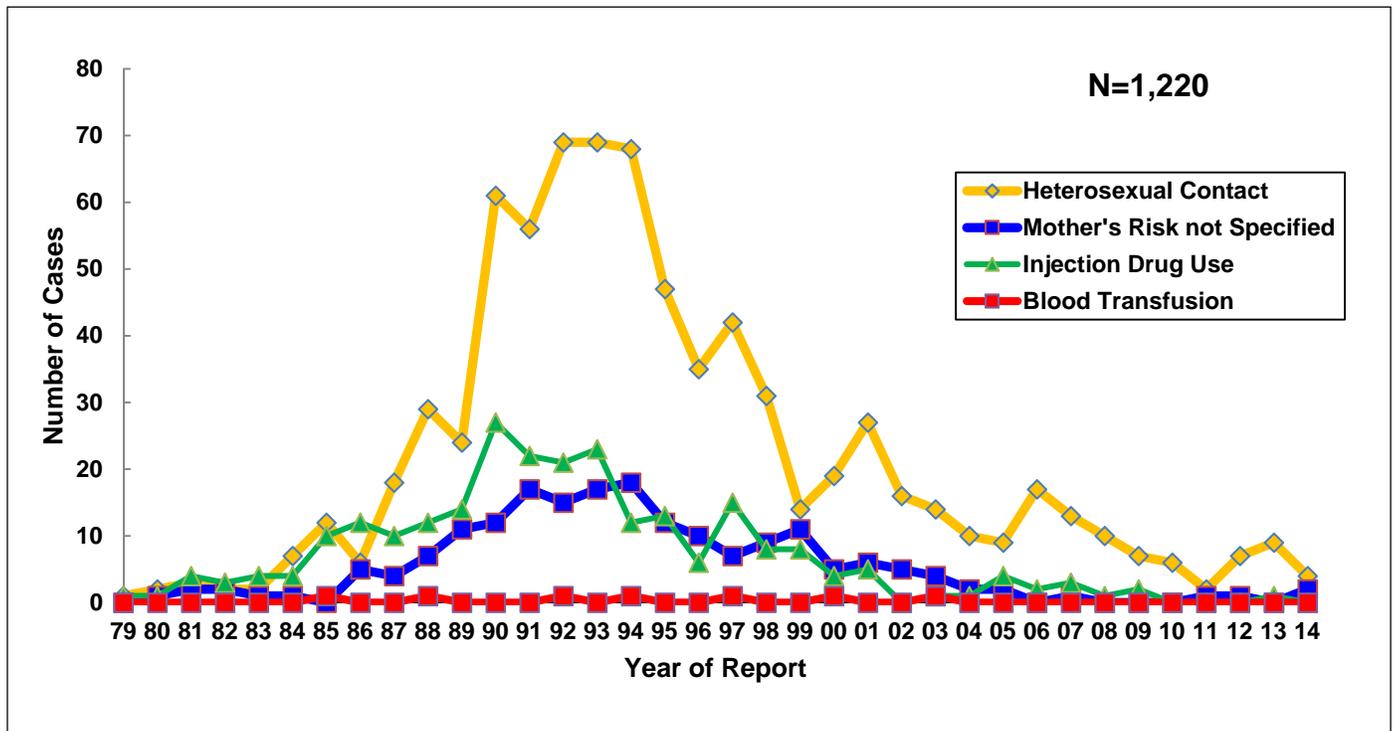
Prevention of perinatal HIV remains a very high priority in Florida. The use of other medical therapies, including protease inhibitors, has supplemented the use of ZDV for both infected mothers and their babies. The use of these medical therapies has been accompanied by a decrease in the number of perinatally HIV-infected infants and is responsible for the dramatic decline in perinatally acquired HIV/AIDS since 1994. Furthermore, numerous initiatives have contributed to the reduction in these cases. Major initiatives include: seven Targeted Outreach to Pregnant Women Act (TOPWA) programs, three perinatal nurses located in the most heavily impacted counties, social marketing, and provider education. These initiatives have helped to further educate local providers in the importance of testing pregnant women for HIV and then offering effective treatment during pregnancy and at delivery to further decrease the chances of vertical transmission. A sharp decrease was observed in 1993, then an approach toward leveling was observed from 2002 to 2007, followed by another declining trend from 2008 onward (Figure 8). In summary, combined, these successful initiatives have resulted in a 95% decline in perinatally-infected births in Florida from 109 cases in 1993 to 6 cases in 2014.

Figure 8. Perinatally Acquired HIV Infected Cases, Born in Florida, by Year of Birth, 1979 -2014



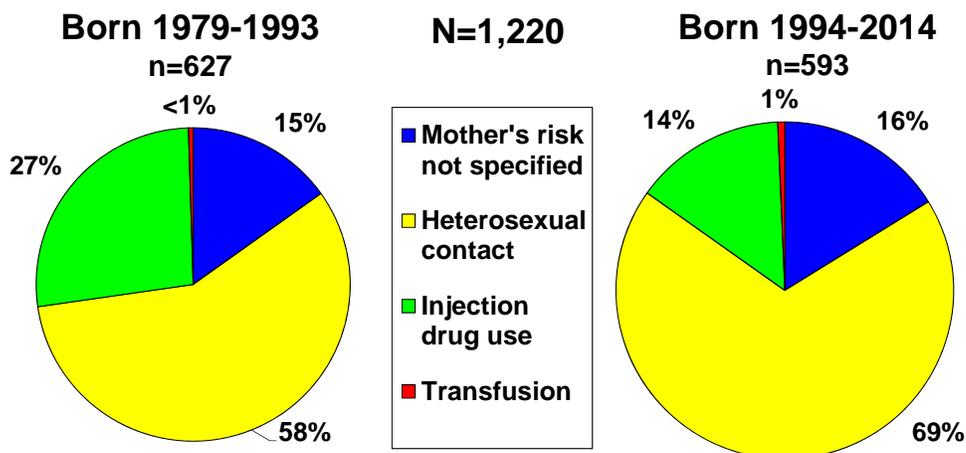
The distribution of the mother's exposure category has changed over time for children who were infected perinatally. In the early 1980's many of these women were exposed to HIV through injection drug use or heterosexual contact (Figure 9). From 1989 – 1992, the risk of injection use decreased as the risk of heterosexual contact continued to increase. Since 1992 a steady decline was observed for all risks as the annual number of perinatal cases decreased, due to improved prophylaxis against opportunistic infections (OI) and the use of combination antiretroviral therapy by pregnant women with HIV since 1994. 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 greater than 85% of women with no identified risk were exposed through heterosexual contact. Since perinatal data resolves around the child's birth, the following data are based on year of birth, not year of report.

Figure 9. Perinatally Acquired HIV Infection Cases Born in Florida, by Mother's Mode of Exposure and Year of Birth, 1979 – 2014



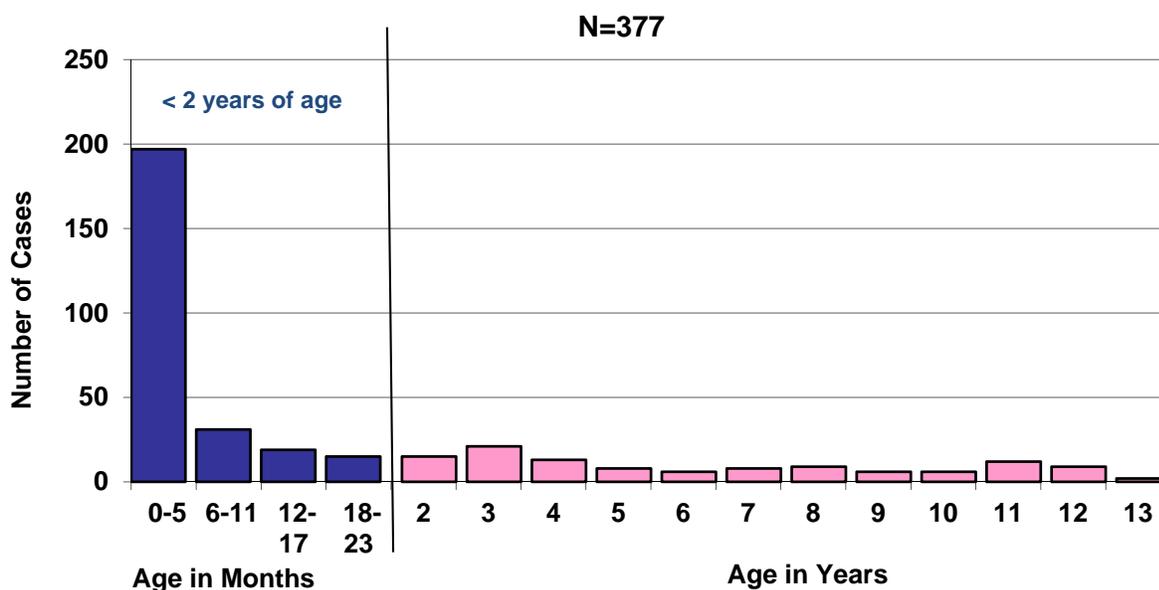
Among children who were infected with HIV, the distribution of their mothers' exposure categories has changed over time (Figure 10). Of the perinatally acquired HIV infection cases who were born from 1979 through 1993, 58% were attributed to the mother's exposure to HIV through heterosexual contact, compared to 69% for those born from 1994 through 2014. Injection drug use accounted for 27% of the cases born between 1979 and 1993, compared to accounting for 14% of the cases born between 1994 and 2014.

Figure 10. Perinatally Acquired HIV Infection Cases Born in Florida, by Mother’s Mode of Exposure and Year of Birth, 1979 – 2014



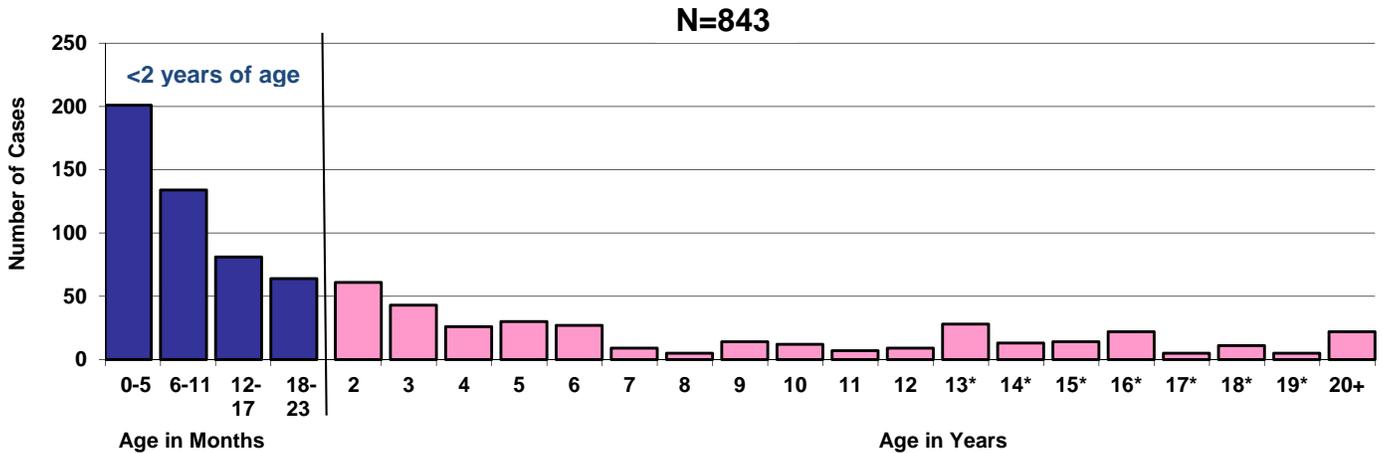
More than one half (55%, n=207) of the 377 perinatal HIV (not AIDS) cases born through 2014 were diagnosed less than the first six months of life (Figure 11). Over two-thirds (69%, n=262) of these perinatal HIV cases were diagnosed under the age of two. Furthermore, less than 1% (n=2) were diagnosed with a perinatal risk after the age of 12.

Figure 11. Perinatally Acquired HIV Infection Cases Born in Florida, 1979 – 2014, by Age at HIV Diagnosis



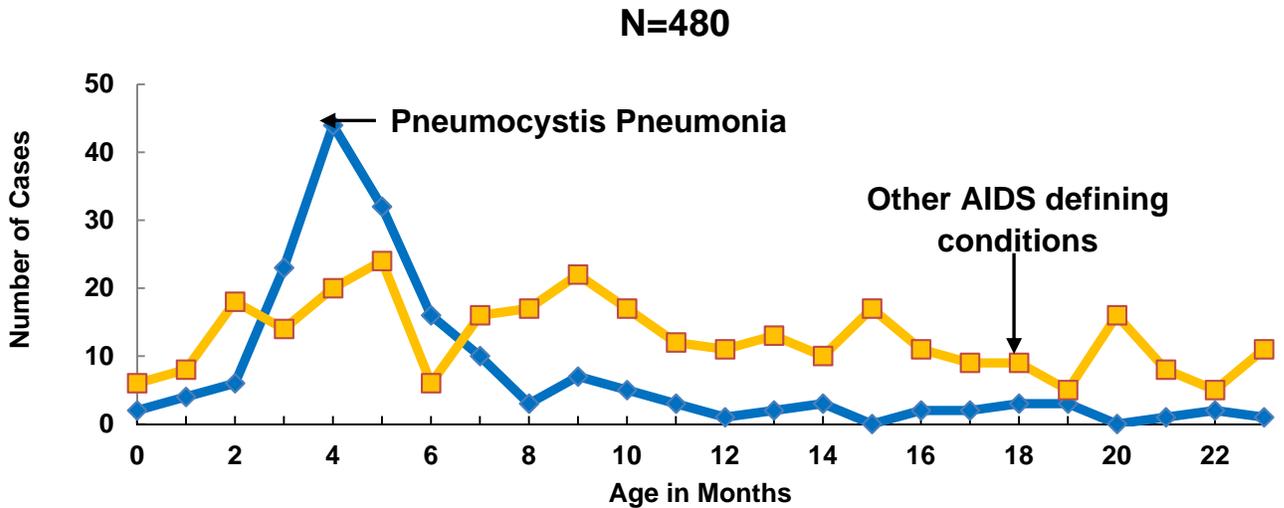
Nearly three-fifths (57%, n=480) of the 842 perinatal AIDS cases born through 2014, were diagnosed with AIDS prior to the age of two (Figure 12). The number of AIDS cases diagnosed after age two decreases by age. Fourteen percent (n=120) of the cumulative AIDS cases were not diagnosed with AIDS until after the age of 12. Early diagnosis of HIV is the key to infected children living longer as well as delaying the onset of AIDS.

Figure 12. Perinatally Acquired AIDS cases Born in Florida, 1979 – 2014, by Age at AIDS Diagnosis



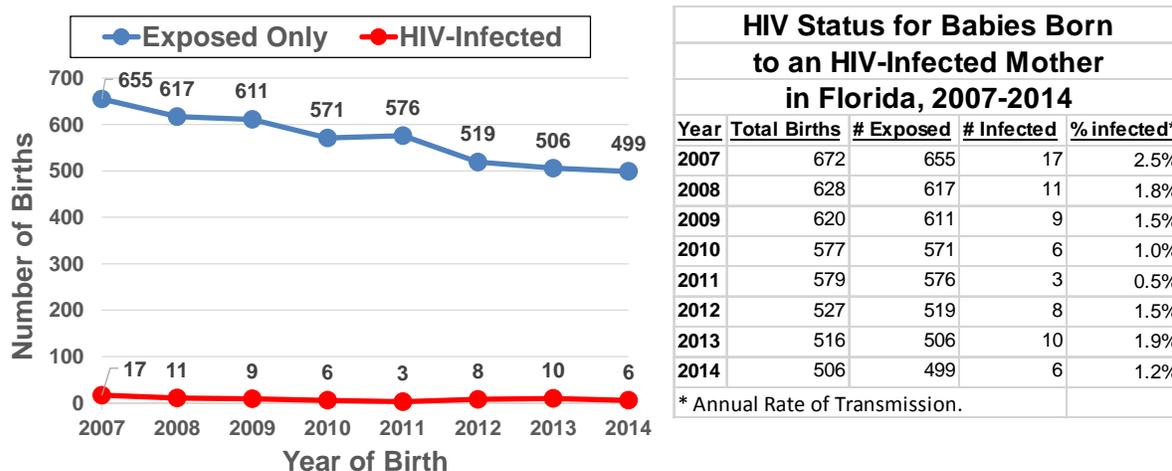
The peak of pneumocystis pneumonia (PCP) in children with perinatally acquired AIDS is four months of age (Figure 13). The age at diagnosis for the other AIDS-defining conditions is much more evenly distributed during the first two years of life. Because of the early presentation of PCP, recommendations for all perinatally HIV-exposed children are for PCP prophylaxis to begin at four to 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 in delaying the onset of AIDS.

Figure 13. AIDS-Defining Conditions for Perinatally Acquired AIDS Cases Less than Two Years of Age, Born in Florida, 1979 – 2014, by Age at AIDS Diagnosis



As of June 30, 2015, a total of 506 babies were known to be born to HIV-infected mothers in Florida in 2014. Of the 506 babies, 6 (1.2%) were known to be HIV-infected (Figure 14). From 2007 to 2014, the number of babies known to be born to HIV-infected mothers decreased 25%. Likewise, the number of HIV-infected babies decreased 65% from 2007 to 2014.

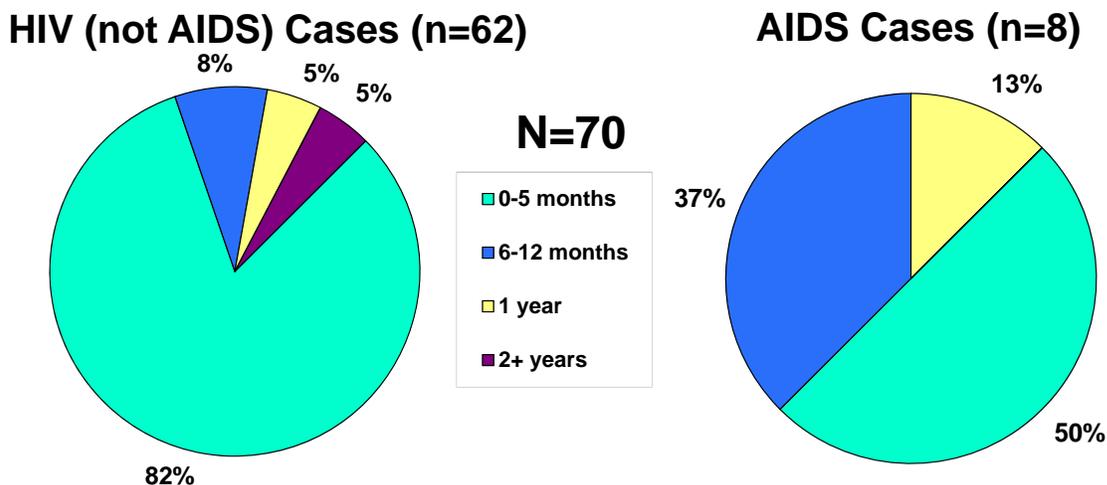
Figure 14. HIV Status for Babies Born to an HIV-Infected Mother in Florida, 2007 – 2014



Note: Perinatal exposure became reportable 11/20/2006, therefore 2007 is the first complete year of data collection.

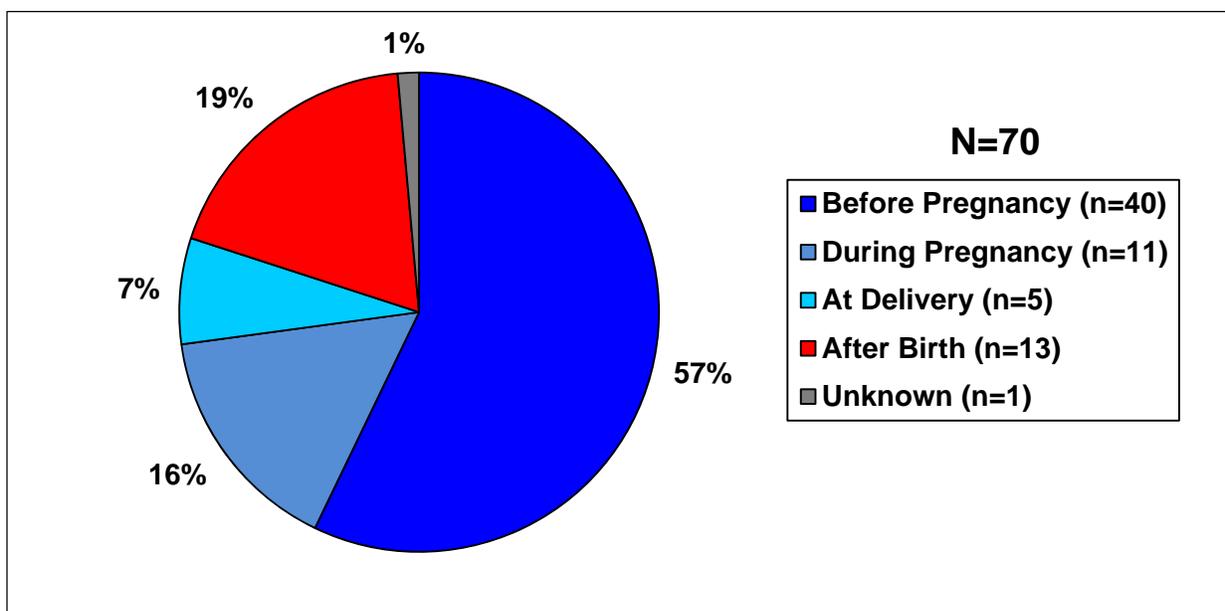
Of the 70 perinatally acquired HIV Infection cases that were born in Florida. Ninety percent (n=56) of the 62 HIV (not AIDS) cases perinatally infected and born in Florida between 2007 and 2014 were diagnosed with HIV within the first year of life (Figure 15). Thirteen percent (n=8) of the 70 perinatal cases born in Florida between 2007 and 2014 have been diagnosed and reported with AIDS as of 6/30/2015. One hundred percent of these cases (n=8 of 8) developed AIDS within the first year of life. As noted earlier, the onset of AIDS can be postponed in children perinatally infected with HIV if early detection and treatment occurs.

Figure 15. Perinatally Acquired HIV Infection Cases Born in Florida, 2007 – 2014, by Disease Status and Age Group



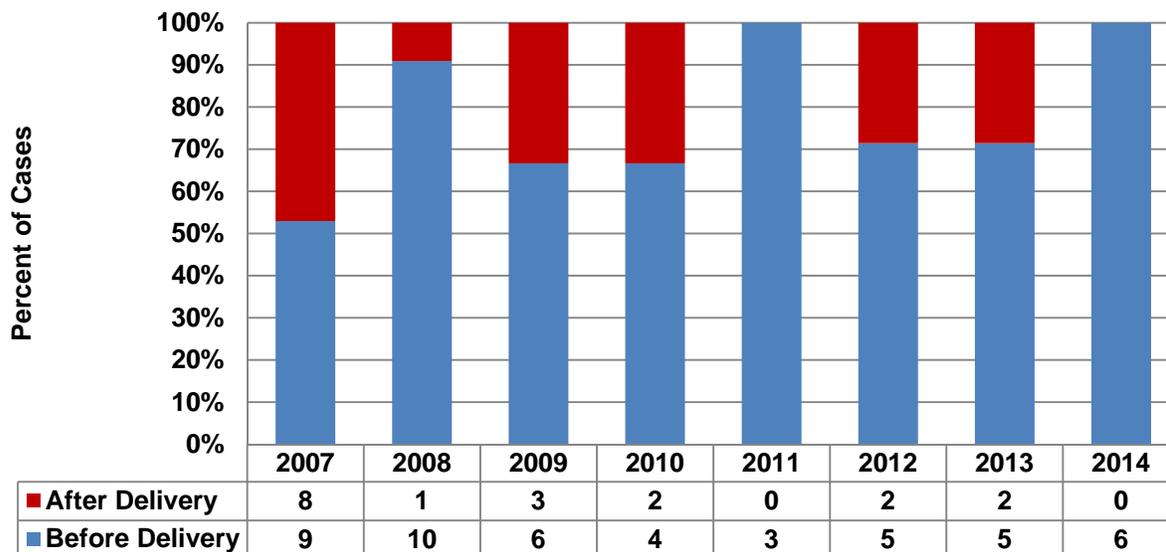
The U.S. Public Health Service recommends that all pregnant women be offered HIV counseling and voluntary HIV tests. It is important for HIV-infected pregnant women to know their HIV status so they can make informed decisions about the use of ZDV and other antiretroviral therapy to reduce perinatal transmission of HIV to their infants. Nearly two-thirds (57%, n=40) of the 70 HIV infected mothers who gave birth in Florida between 2007 and 2014 knew of their HIV status before their child was born (Figure 16). Seven percent (n=5) were diagnosed at delivery. Nineteen percent (n=13) did not know their HIV status until after their child was born. These data demonstrate that in some instances, these women received no prenatal care and presented at the hospital ready to deliver, with no time for HIV assessment. Often times, the mother receives no HIV test, even after delivery. In other instances, pregnant women were diagnosed HIV negative during pregnancy, were never re-tested prior to delivery, and a negative HIV status was assumed. These perinatal cases are usually not identified as being infected until a year or more after birth, when they or their mother get sick and get tested. In many instances, it was the diagnosis of the child that led to the diagnosis of the mother. These data stress the importance of offering HIV testing, preferably with a rapid test, at labor and delivery to women of unknown HIV status.

Figure 16. Time of Maternal HIV Testing Among Perinatally Acquired HIV Infected Babies Born in Florida, 2007 – 2014



The proportion of pregnant giving birth to a child diagnosed with HIV and who knew their status prior to delivery varies from year to year, ranging from 50% to 90% or higher (Figure 17). More specifically, these data illustrate those who are born HIV-infected between 2007 and 2014 are more likely to be born to a mother whose HIV status was known prior to birth.

Figure 17. Women Who Have Given Birth to Perinatally Acquired HIV Infected Babies in Florida by Mother’s Knowledge of HIV Status at Delivery by Year of Birth, 2007 – 2014



7. Missed Opportunities

Please bear in mind that these data do not include four perinatal cases reported in Florida who were born outside of the state, along with an additional five perinatal cases who were born outside of the U.S. The aforementioned 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 women did not access services in Florida during pregnancy. Therefore the following analysis will focus on the 70 perinatally acquired HIV Infection cases that were born in Florida between 2007 and 2014.

There are several possible missed opportunities where interventions could have taken place to prevent HIV perinatal transmission among infants born between 2007 and 2014 (N=70) (Table 3). These missed opportunities include: inadequate prenatal care, no prenatal antiretroviral therapies (ART), no ART at delivery, and/or no neonatal ART (with in the first 6 weeks of the infant’s life). Other contributing factors include some mother who breast-fed, abused drugs, or acquired a sexually transmitted disease (STD) during her pregnancy or a combination any of the previously mentioned contributing factors.

Table 3. Possible Missed Opportunities that Could Have Prevented Perinatal Transmission of HIV among HIV Positive Babies Born in Florida, 2007 – 2014

Total Born Florida, 2007 - 2014		
Missed Opportunities	Number	Percent
Mom's HIV Status NOT Known Before Birth	13	19%
Inadequate Prenatal Care*	59	84%
No Prenatal Antiretroviral Therapy	36	51%
No Antiretroviral Therapy at Delivery	29	41%
Non-Caesarean Birth	23	33%
No Neonatal Antiretroviral Therapy	13	19%
Breast Fed	6	9%
<i>Total</i>	70	100%
Other Contributing Factors**	Number	Percent
Mom was a substance abuser during pregnancy	28	40%
Mom acquired an STD during pregnancy	24	34%

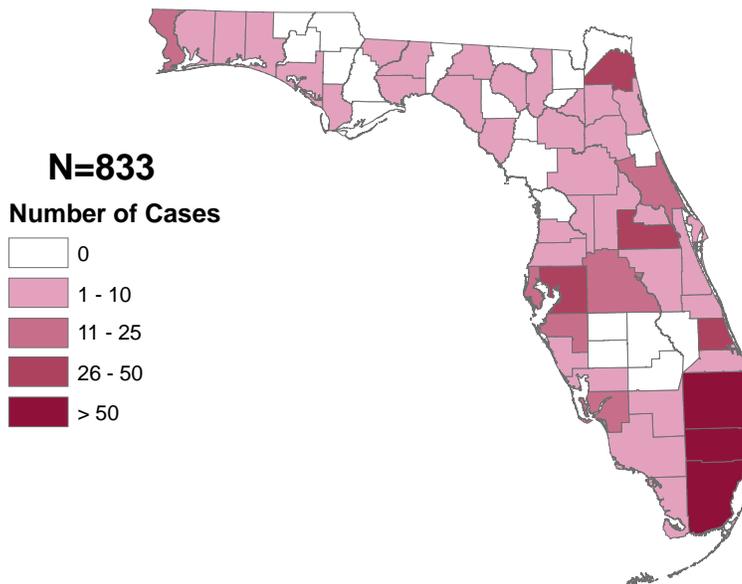
*Inadequate prenatal care indicates prenatal care after the 4th month and less than 5 visits
 **The same child can be in multiple categories

8. Geographical Distribution of Perinatally Acquired HIV Infection Cases in Florida

Florida reported 672 pediatric HIV (not AIDS) cases through 2014, with the majority (49%) of these cases were reported from Miami-Dade (n=173), Broward (n=103), and Palm Beach (n=56) counties. Similarly, Florida reported 1,947 pediatric AIDS cases through 2014, with the majority (62%) of these cases reported from Miami-Dade (n=621), Broward (n=333), and Palm Beach (n=246) counties (data not shown).

As of 6/30/2015, a total of 833 perinatally acquired HIV infection cases born in Florida through 2014 are still presumed to be alive (Figure 18). The majority (57%) of these cases were born in South Florida: Miami-Dade (n=236), Broward (n=134) and Palm Beach (n=101).

Figure 18. Living Perinatally Acquired HIV Infection Cases, by County of Birth, Born in Florida, 1979 through 2014



Although there have been significant decreases in pediatric HIV cases since 1992, each of the top reporting areas have reported at least one case since 2000 (Table 4). As previously noted, efforts continue to be made to educate providers about the value of knowing the HIV status of all pregnant women during prenatal care and at delivery, and for those pregnant women testing positive for HIV, to offer the best treatment available to prevent vertical transmission.

Table 4. Perinatally Acquired HIV Infection Cases, by Selected Regions of Birth, Born in Florida 2007 through 2014

Region of Birth	Born 2007-2014	
	# of cases	% of Total
Area 01 ^a	4	6%
Area 03 ^b	3	4%
Area 08 (Lee County Only)	3	4%
Area 08 (excl. Lee County) ^c	0	0%
Area 15 ^d	2	3%
Broward County	11	16%
Duval County	8	11%
Hillsborough/Pinellas Counties	5	7%
Miami-Dade County	14	20%
Orange County	8	11%
Palm Beach County	2	3%
Polk	2	3%
Remainder of state	8	11%
TOTAL CASES	70	100%

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

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

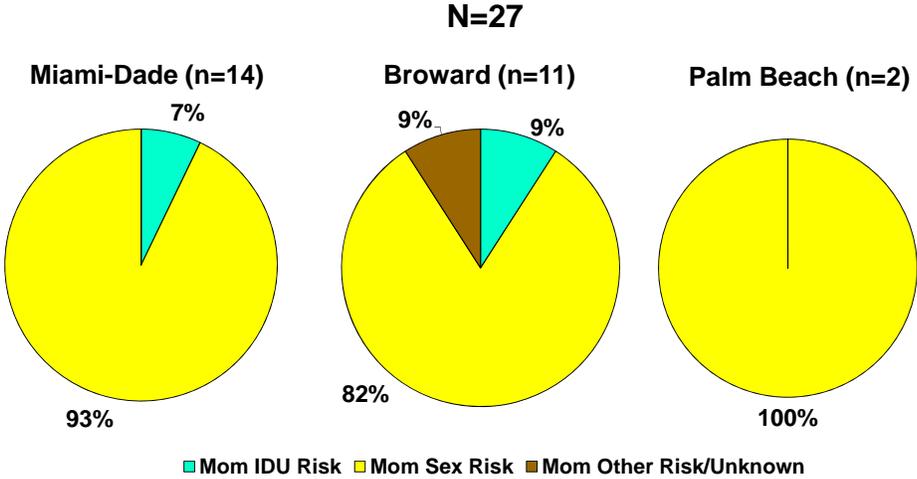
^c Area 8 (excl. Lee County) = Charlotte, Collier, DeSoto, Glades, Hendry & Sarasota Counties;

^d Area 15 = St. Lucie, Indian River, Martin, & Okeechobee Counties.

9. Perinatally Acquired HIV Infection Cases Born in Selected South Florida Counties

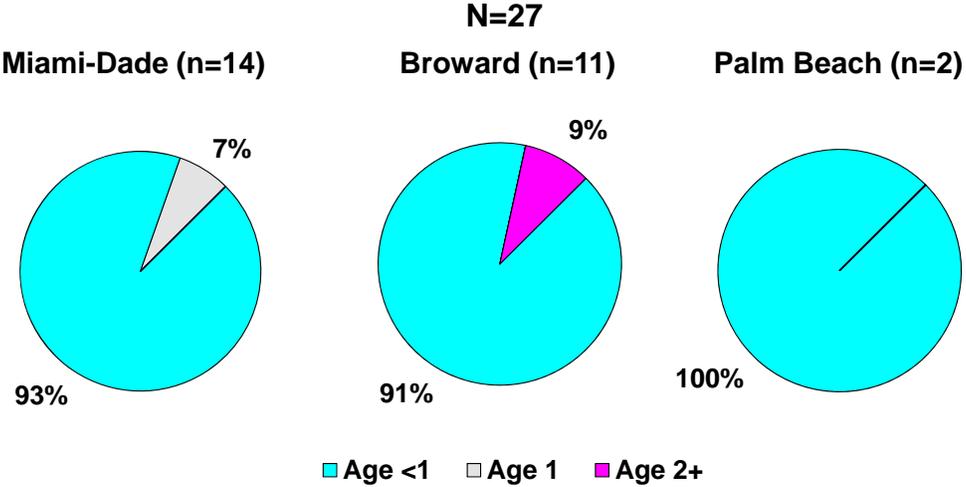
A total of 27 perinatal HIV and AIDS cases born between 2007 and 2014, were reported in Miami-Dade, Broward and Palm Beach counties. This represents 39% of the 70 perinatal HIV and AIDS cases born in Florida during this time period. All of the pediatric HIV/AIDS cases reported from these three counties were perinatally acquired. However, there is some variation with regard to the mode of exposure of the mother by selected South Florida counties (Figure 19).

Figure 19. Perinatally Acquired HIV Infection Cases Born in Selected South Florida Counties, 2007 – 2014, by Mother’s Exposure Category



Ninety-three percent (25 of 27) of the perinatally acquired HIV infection cases born in South Florida were diagnosed within 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 delaying the onset of AIDS.

Figure 20. Perinatally Acquired HIV Infection Cases Born in Selected South Florida Counties, 2007 – 2014, by Age at First Diagnosis



Perinatally acquired HIV infection in Florida disproportionately affect non-Hispanic blacks (Figure 21). In South Florida, 85% (23 of 27) of the pediatric HIV/AIDS cases were among blacks. These data differ greatly from the population by race/ethnicity for women of childbearing age (15-44) living in these counties (Table 5).

Figure 21. Perinatally Acquired HIV Infection Cases Born in Selected South Florida Counties, 2007 - 2014, by Race/Ethnicity

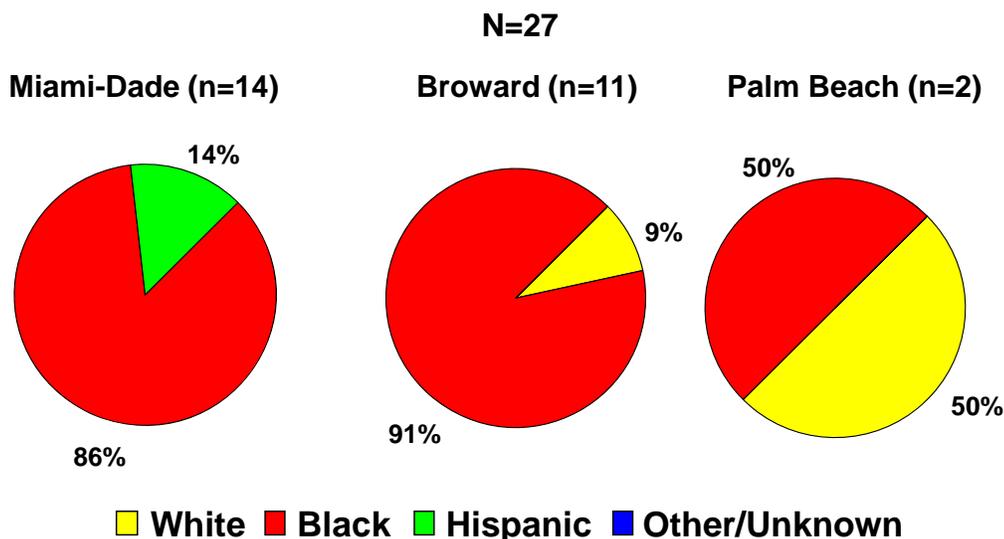


Table 5. Distribution of Women of Childbearing Age* (15-44) by Race/Ethnicity for Miami-Dade, Broward, and Palm Beach Counties

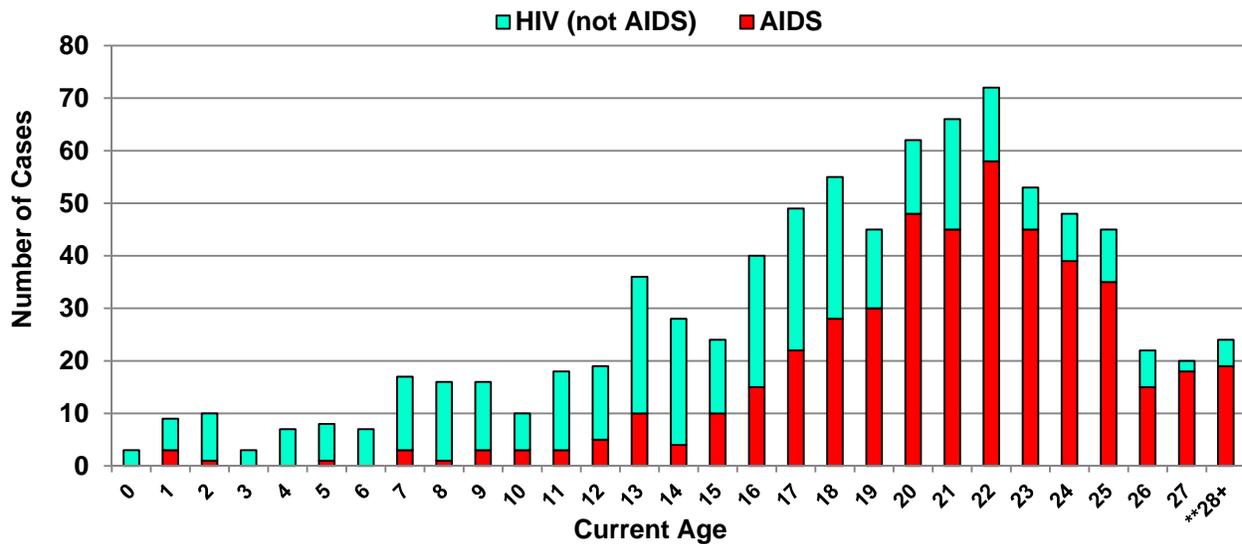
	White	Black	Hispanic	Other
Miami-Dade	12%	18%	67%	3%
Broward	32%	32%	30%	6%
Palm Beach	45%	23%	27%	5%

* Female population aged 15 to 44 are based on Florida CHARTS, data as of 7/9/2015

10. Prevalence of Perinatally Acquired HIV Infection Cases in Florida

As of December 31, 2014, there were 833 perinatally acquired HIV infection cases born in Florida through 2014 and presumed to be living (Figure 22). Their current ages range from 0 to 28+ years. Overall, 465 (56%) have developed AIDS. As expected, the majority of the cases under age 13 are diagnosed with HIV (not AIDS) and the majority of cases ages 13 or older have developed AIDS. Access to antiretroviral medications and prophylaxis against opportunistic infections has aided in prolonging the life of many of these perinatally acquired HIV infection cases.

Figure 22. Current Age* Distribution of Living Perinatally Acquired HIV Infection Cases by Disease Status, Born in Florida, 1979 through 2014



* Current age of presumed living perinatally acquired HIV infection cases born in Florida through 2014.

** The vital status for some of the cases born from 1986 or earlier could not be validated therefore some of these presumed living cases may be deceased. Data as of 6/30/2015

11. The Continuum of HIV Care among Pediatric Cases

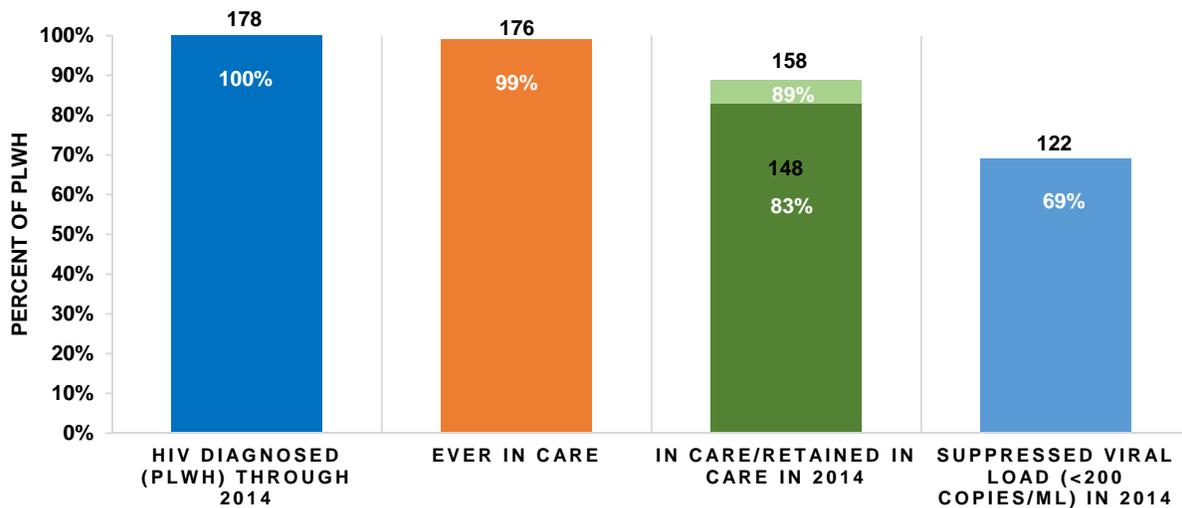
The HIV care continuum is a model that outlines the sequential steps or stages of HIV medical care that people living with HIV go through from initial diagnosis to achieving the goal of viral suppression (a very low level of HIV in the body), and shows the proportion of individuals living with HIV who are engaged at each stage (Figure 23).

The National HIV/AIDS strategy goals are to: (1) reduce the number of people who become infected with HIV; (2) increase access to care and improve health outcome for people living with HIV; (3) Reduce HIV-related health disparities. It is vital to improve engagement at every stage in a continuum of care that includes:

- HIV testing a subsequent diagnosis
- Linkage to HIV medical care
- Continuous engagement in HIV medical care (retention)
- Initiation of antiretroviral therapy (ART)
- Suppressed viral load (less than 200 copies per milliliter)

Florida Department of Health, Bureau of Communicable Diseases, HIV/AIDS section estimates that out of 178 persons diagnosed with HIV between the ages of 0 to 12, 176 (99%) had at least one documented viral load or CD4 (cluster of differentiation 4) lab, medical visit or prescription since HIV diagnosis. One hundred fifty eight (89%) of the 178 pediatric cases had at least one documented viral load or CD4 lab, medical visit or prescription in 2014. Furthermore, 148 (83%) had at least one documented viral load or CD4 lab, medical visits or prescriptions (at least 3 among apart) in 2014. One hundred twenty two (69%) out of 178 pediatric cases had a suppressed viral load (less than 200 copies/mL) in 2014.

Figure 23. Number and Percentage of Persons Diagnosed and Living with HIV (PLWH) Engaged in Selected Stages of the Continuum of HIV Care, 0 – 12 Years of Age, 2014



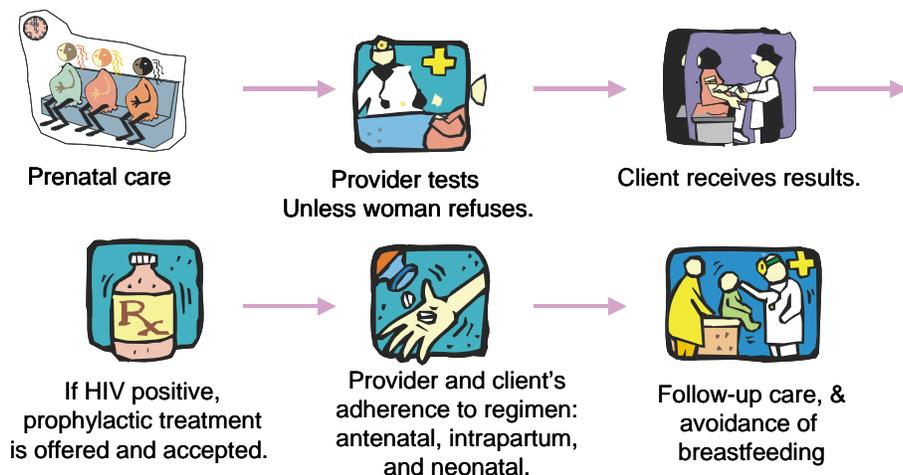
- 86% of those diagnosed with HIV in 2014 had documented HIV-related care within 3 months of diagnosis
- 77% of PLWH in care had a suppressed viral load in 2014

- (1) **HIV Diagnosed:** Persons diagnosed and living with HIV (PLWH) in Florida through the end of 2014.
 (2) **Ever in Care:** PLWH with at least 1 documented viral load (VL) or CD4 lab, medical visit or prescription since HIV diagnosis.
 (3) **In Care:** PLWH with at least 1 documented VL or CD4 lab, medical visit or prescription in 2014.
Retained in Care: PLWH with 2 or more documented VL or CD4 labs, medical visits or prescriptions (at least 3 months apart) in 2014.
 (4) **On ART:** This bar was omitted on tables with demographic and risk breakdowns because the estimated value is based on small numbers.
 (5) **Suppressed Viral Load:** PLWH with a suppressed VL (<200 copies/mL) on last VL in 2014.

12. Prevention is the Key to Success

According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), without appropriate medical therapy, up to 40% of babies born to pregnant women with HIV will be diagnosed with the virus.⁶ Infection can occur at any time during the pregnancy (usually preceding or during delivery), and can also occur through breastfeeding. Since infection can occur through breast milk, women with HIV are strongly encouraged not to breast feed their children. The risks of mother-to-child transmission of HIV can be reduced to below 1% by the appropriate use of HIV treatment during pregnancy and labor and by not breast feeding.⁷ Prevention is the key to success (Figure 24).

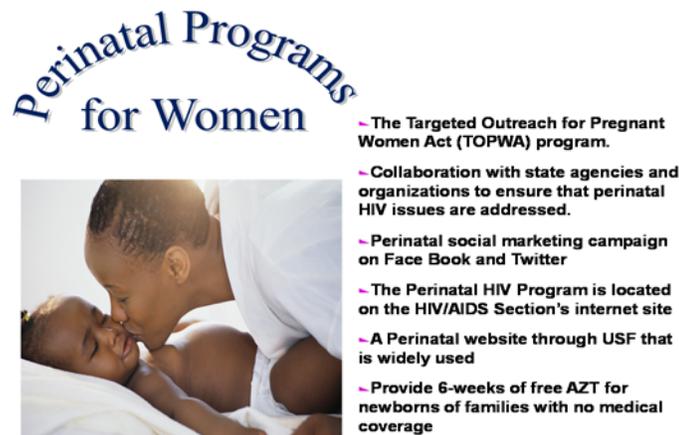
Figure 24. Steps to Prevention Success



13. Perinatal Programs for Women

Since 1994, Florida has implemented a comprehensive perinatal HIV prevention program designed to reduce the incidence of perinatal HIV transmission in the state (Figure 25). This comprehensive program is two-pronged as it designed to target 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 Communicable Diseases, HIV/AIDS Section's perinatal HIV prevention activities.

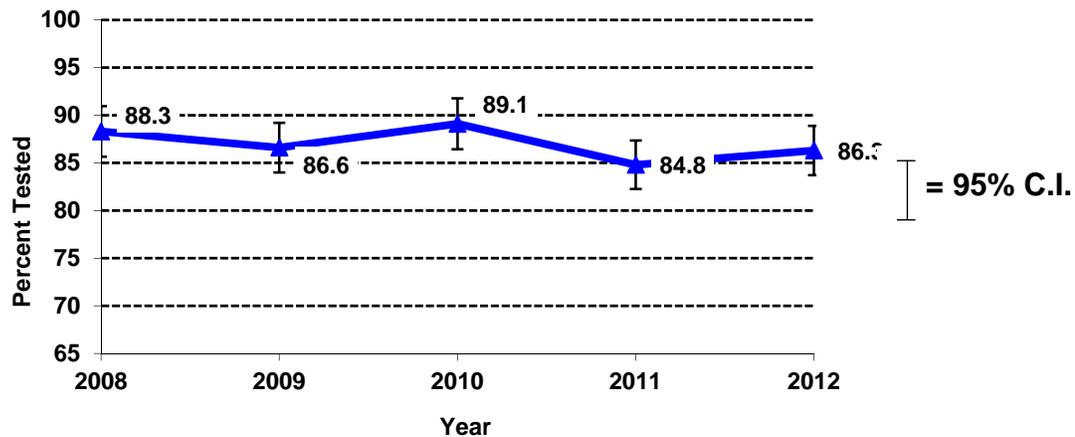
Figure 25. Perinatal Programs for Women



14. Prenatal HIV Testing Among Women during Pregnancy in Florida

Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) indicate that Florida's HIV testing rates for pregnant women is among the highest in the U.S., which has probably contributed to the continued decline in pediatric HIV/AIDS cases. However, Florida's HIV testing for pregnant women have decreased two percentage points from 2008 to 2012 (Figure 26). PRAMS is a joint surveillance project between the Florida Department of Health and the Centers for Disease Control and Prevention designed to monitor the physical, economic, and social health of Florida's mothers and newborns. Figure XX shows the percentage of women surveyed who state they were tested for HIV during their most recent pregnancy.

Figure 26. PRAMS: Prenatal HIV Testing Among Women During Pregnancy in Florida, 2008 – 2012



15. National AIDS Education and Training Center

The Florida Department of Health contract with the national 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.

16. Targeted Outreach for Pregnant Women Act Program

The Targeted Outreach for Pregnant Women Act (TOPWA) was created in 1999 to reduce the number of women and infants who become infected with HIV and prevent substance abuse during pregnancy. TOPWA works to reach high-risk women or HIV-infected pregnant women who are currently not receiving services and those who abuse substances. The program continues to offer assistance and support to women accessing prenatal care, substance abuse treatment and other services throughout their pregnancy.

TOPWA is unique in that outreach workers are employed to go into the community and public venues and enroll pregnant women who have yet to access available perinatal care. Outreach workers frequent locations such as laundromats, malls, apartment complexes, and local hangouts along with holding community- wide health fairs, baby showers, and collaborative events with local agencies. The hard work and efforts of TOPWA have been successful as the number of HIV-infected babies born in Florida has decreased from 37 in 2001 to 6 in 2014.

The TOPWA program is geared toward women considered to be high risk and of childbearing age in an effort to ensure mothers have safe pregnancies. The majority of women enrolled into the TOPWA program during the 2013-2014 year fell into the age range of 15-25 years. Although the numbers for the age ranges of 26-35 and 36-45 are lower, it does show that the TOPWA programs have made an effort to serve a wide range of pregnant women in need of services. Additionally, the majority of women enrolled in the TOPWA program were black, making up 56% of the TOPWA enrollments. Hispanic women made up 24% and white women made up 20%. Table 6 provides an overview of the women served by each TOPWA site.

Table 6. Women Enrolled in TOPWA by Age and Race/Ethnicity, Florida, 2013 – 2014

	White		Black		Hispanic		Total
	No.	Percent	No.	Percent	No.	Percent	No.
15 – 25 years old	153	20%	446	58%	169	22%	768
26 – 35 years old	189	22%	448	53%	207	25%	844
36 – 45 years old	24	11%	127	56%	74	33%	225
							1,837

One of the main components of the TOPWA program is to link clients to the services needed to ensure safe and healthy pregnancies. During the 2013-2014 year, a total of 4,853 referrals were made by the TOPWA sites. Of these services, 24% were Healthy Start referrals, 27% were prenatal care referrals, and 20% were WIC referrals; these three made up the majority. Although transportation is a major issue among TOPWA clients, the services available to remedy this issue are scarce. An additional 1,834 referrals were made during the 2013-2014 year to services other than what are listed above. These services include: adoption, clothing, doula, family planning, housing, maternal and child health care, parenting classes, HIV/AIDS counseling, pregnancy centers, smoking cessation, transportation, and workforce development.

Baby RxPress

Although the Baby RxPress Program is not an actual component of the TOPWA program, it is utilized by the program when the need arises. The purpose of the Baby RxPress Program is to assist HIV- infected mothers who have given birth to exposed babies with getting the medications their newborns need. The program, which began in 2008, provides up to six weeks of prophylaxis medications for the newborn through a voucher system with Walgreens Pharmacy. Payment is made through funds from the Bureau of Communicable Diseases.

During the 2013-2014 fiscal year medication was provided to 176 babies at a cost of \$4,866.34.

For further information on the TOPWA program or Florida’s perinatal HIV prevention program, please contact Jesse Kemper, Perinatal HIV Prevention Program Coordinator, Florida Department of Health, Division of Disease Control and Health Protection, Bureau of Communicable Diseases, HIV/AIDS Section at 850-245-4444 ext. 2563, or visit Florida’s HIV/AIDS perinatal website at <http://www.floridahealth.gov/diseases-and-conditions/aids/prevention/topwa1.html>

References

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Additional Resources

Additional information about HIV and AIDS can be found on the CDC's website in English and Spanish at <http://www.cdc.gov/hiv/basics/index.html>

Please visit the HIV/AIDS surveillance webpage to access additional reports including fact sheets, epidemiologic profiles, monthly surveillance report, slide shows and much more at <http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/index.html>

To locate services across the state please visit <http://www.floridahealth.gov/diseases-and-conditions/aids/index.html>

Website Links

Below are relevant website links.

http://www.cdc.gov	Centers for Disease Control and Prevention
http://www.who.int	World Health Organization
http://thebody.com/index.html	The Body
http://www.medscape.com	Medscape
http://www.paho.org/selection.asp?SEL=TP&LNG=ENG&CD=OAIDSNSTD	PAHO: HIV and Sexually Transmitted Infections
http://www.ashastd.org	The American Social Health Organization
http://www.unaids.org	UNAIDS
http://www.nastad.org	National Alliance of State and Territorial AIDS Directors
http://iapac.org	International Association of Physicians in AIDS Care
http://www.nap.edu/books/0309071372/html	National Academy Press, No Time To Lose (2000)
http://wemakethechange.com	We Make the Change
http://www.theaidsinstitute.org	The AIDS Institute
http://www.census.gov/population/international/data/hiv/	US Census Bureau
http://sis.nlm.nih.gov/HIV/HIVMain.html	National Library of Medicine

Contact Information

Below are contact phone numbers and email addresses should you need Hepatitis, HIV, AIDS, STD or TB data.

HIV/AIDS Case Reporting/ Epidemiology/ Prevalence

AIDS Case Reporting/Data Requests/Surveillance Main Number (850) 245-4430

- Lorene Maddox Lorene.Maddox@flhealth.gov ext. 2613
- Tracina Bush Tracina.Bush@flhealth.gov ext. 2612
- Madgene Moise Madgene.Moise@flhealth.gov ext. 2373

AIDS Drug Assistance Program/Patient Care Resources (850) 245-4335
AIDS Education & Prevention (850) 245-4336
HIV/AIDS Epidemiology/HIV Prevalence (850) 245-4448
Legal Issues (850) 245-4477

HIV/AIDS Incidence

- Jontae Sanders Jontae.Sanders@flhealth.gov (850) 245-4430

Hepatitis

Hepatitis Data Analysis/Vaccine and Testing/Educational Materials (850) 245-4334

- Phil Reichert Phil.Reichert@flhealth.gov

HIV Counseling and Testing Data

HIV Counseling and Testing/Seroprevalence & Special Studies (850) 245-4424

- Melinda Waters Melinda.Waters@flhealth.gov

Sexually Transmitted Disease Case Reporting

ICCR Clerk (850) 245-4325
STD Case Reporting/Data Requests/
STD Prevention & Control Main Number (850) 245-4303

- James Matthias James.Matthias@flhealth.gov

Tuberculosis Case Reporting

TB Control Main Number (850) 245-4302
TB Case Reporting and Surveillance
TB Surveillance and Epidemiology/Data Requests

- Jose Zabala Jose.Zabala@flhealth.gov

Other Important Numbers

Epidemiology (850) 245-4401
Florida AIDS Hotline (800) FLA-AIDS
National AIDS Hotline (800) 342-AIDS
National Data Requests (CDC fax) (404) 332-4565
TB Information Hotline (800) 4TB-INFO