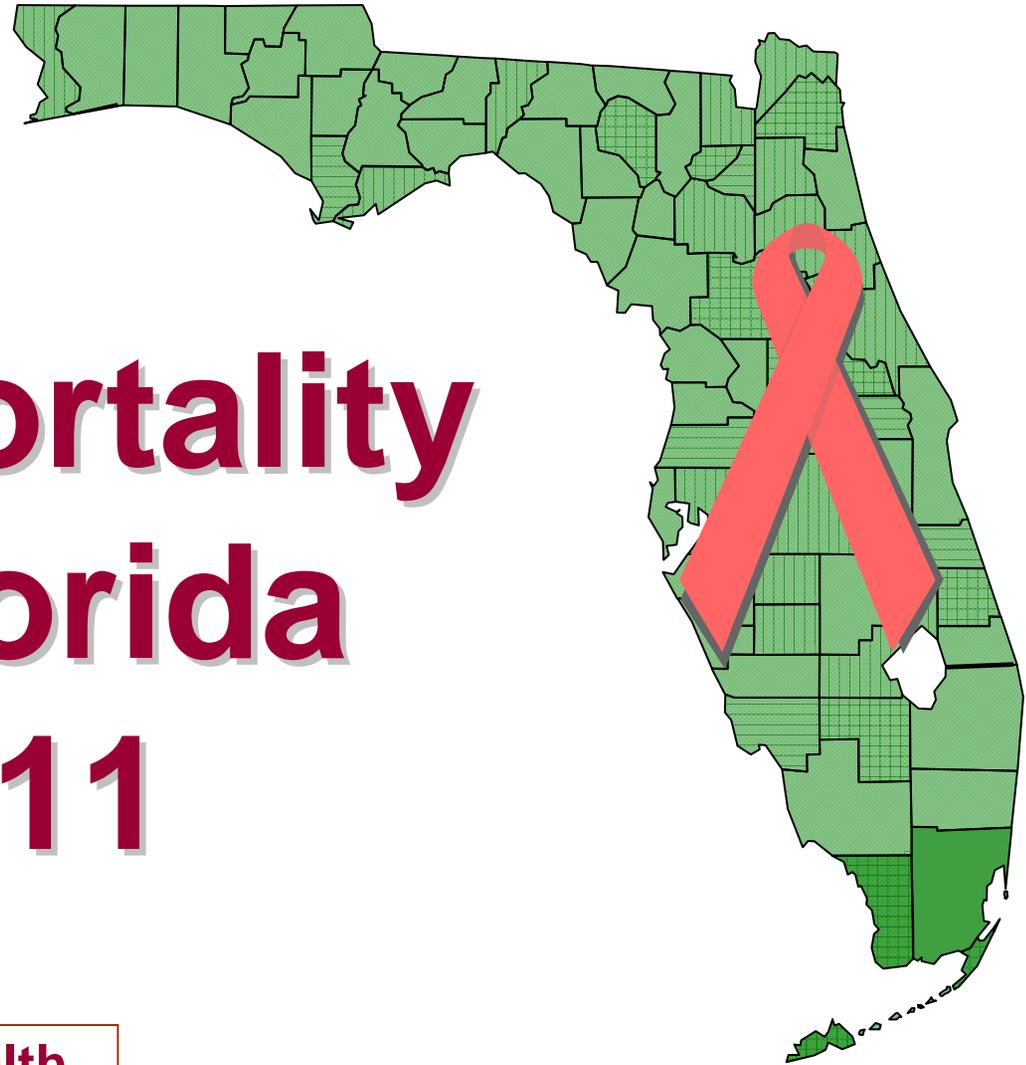


Created: 07/31/12

Revision: 10/10/12

HIV Mortality in Florida 2011



**Florida Department of Health
HIV/AIDS & Hepatitis Program**
Death data as of 07/12/2012

The Epidemic in Florida, 2011

Population: 18.8 million →
(4th in nation)

60% White
16% Black
22% Hispanic
2% Other*

Cumulative AIDS cases: 124,069
(3rd in nation)

Cumulative pediatric AIDS cases: 1,543
(2nd in nation)

Cumulative HIV (not AIDS) cases: 47,695
(2nd in nation of 46 states with HIV name reporting)

Persons living with HIV/AIDS: 97,436 →

29% White
49% Black
20% Hispanic
2% Other*

HIV prevalence estimate: 130,666

**HIV Incidence Estimates are approximately
5,000 per year, 2006-2009**

Deaths due to HIV/AIDS: 1,005 (2011)

*Other = Asian/Pacific Islanders; American Indians/Alaskan Natives; multi-racial.
Trend data as of 12/31/2011, Living data as of 05/16/2012

HIV Mortality in Florida

🚫 Resident HIV deaths due to HIV disease represent persons who resided in Florida and whose underlying cause of death was HIV disease, regardless if they were reported with HIV disease in Florida or not.

- The data source is death certificate data from the Florida Department of Health, Office of Vital Statistics.

🚫 HIV case deaths are known cases of HIV disease (regardless of AIDS status) reported in Florida and are known to be dead, regardless of the cause of death. It is important to understand if any known HIV/AIDS cases died in any given year for estimates of the current burden of HIV/AIDS care and treatment needs within the state.

- The data source is the Florida HIV/AIDS Reporting System (eHARS) from the Florida Department of Health, Bureau of HIV/AIDS.

HIV Mortality in Florida (con't)

Rates are expressed as deaths per 100,000 population based on 2008 Population Estimates, DOH, Office of Planning, Evaluation and Data Analysis

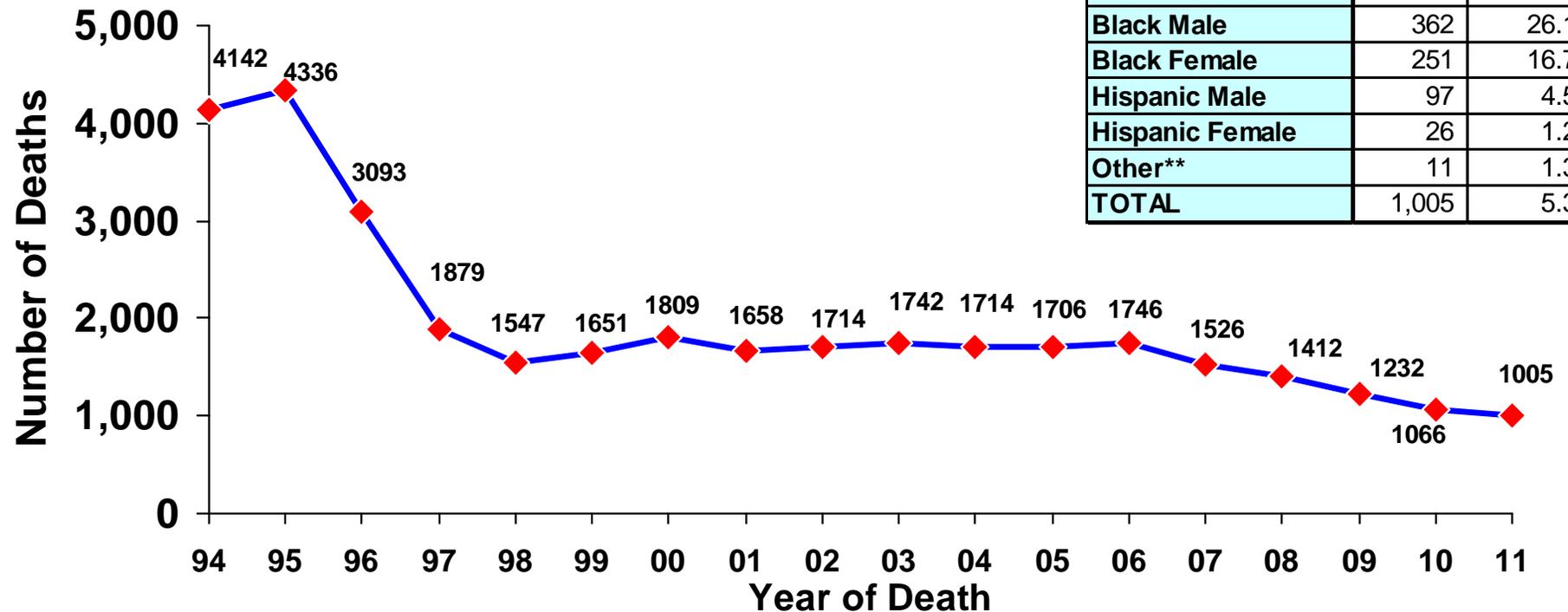
A new national system for coding death certificates (ICD-10) began in 1999, which resulted in an increase of approximately 14% in the annual number of HIV/AIDS deaths.

Other includes Asian/Pacific Islander, American Indian/Alaska Native, Multiracial and/or Other/Unknown races. Males and females are combined per the low number of resident deaths.

Note: HIV/AIDS deaths decreased markedly from 1996-1998, associated with the advent of HAART in 1996. Yearly declines since 2007 appear promising.

Source: Office of Vital Statistics and Bureau of HIV/AIDS, death certificates coded to HIV/AIDS as underlying cause.

Resident Deaths due to HIV Disease, by Year of Death, 1994-2011, Florida

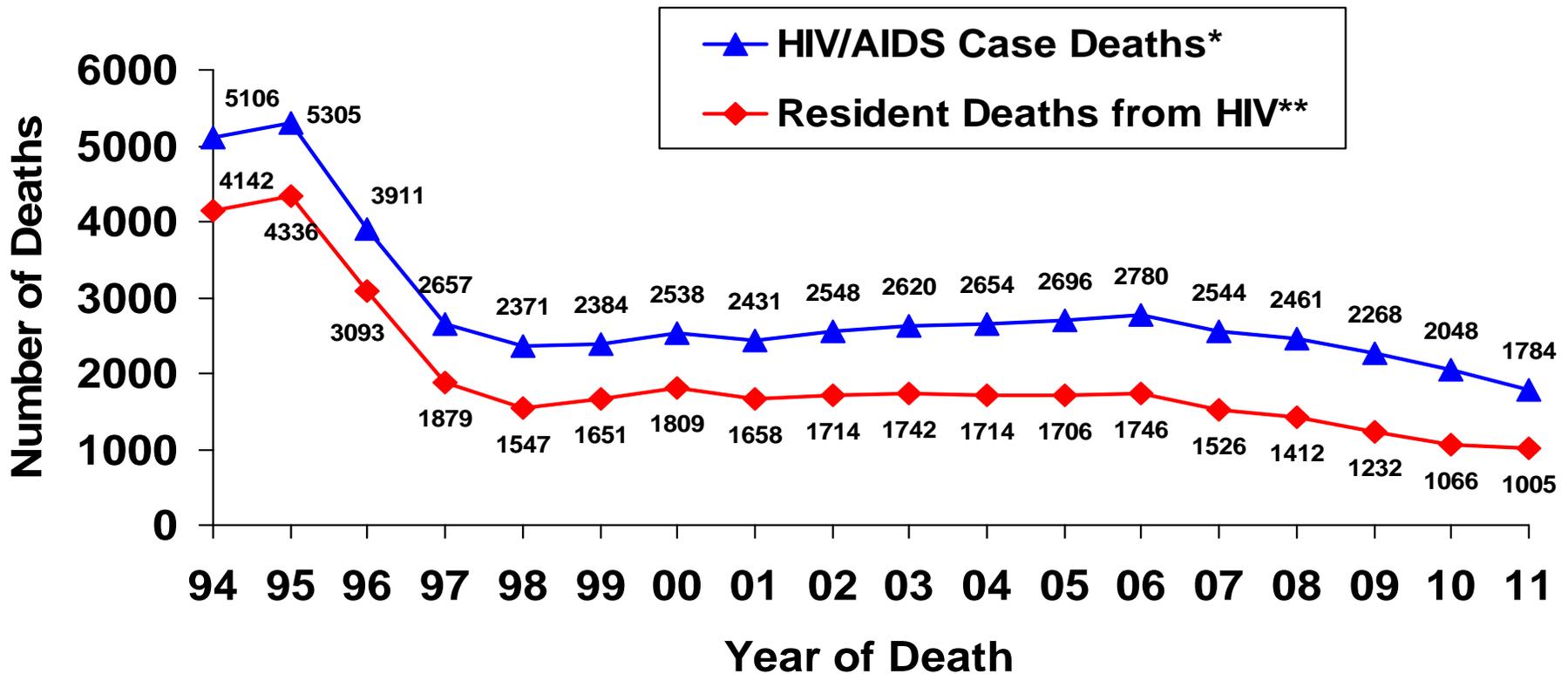


Race/Ethnicity	2011	
	No.	rate*
White Male	201	3.8
White Female	57	1.0
Black Male	362	26.1
Black Female	251	16.7
Hispanic Male	97	4.5
Hispanic Female	26	1.2
Other**	11	1.3
TOTAL	1,005	5.3

Note: The number of HIV-related deaths decreased by 6% from the previous year, and 77% since the peak year in 1995. Since 2007, deaths have continued declining each year, down to 1,005 in 2011.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012). Population data are provided by FloridaCHARTS.

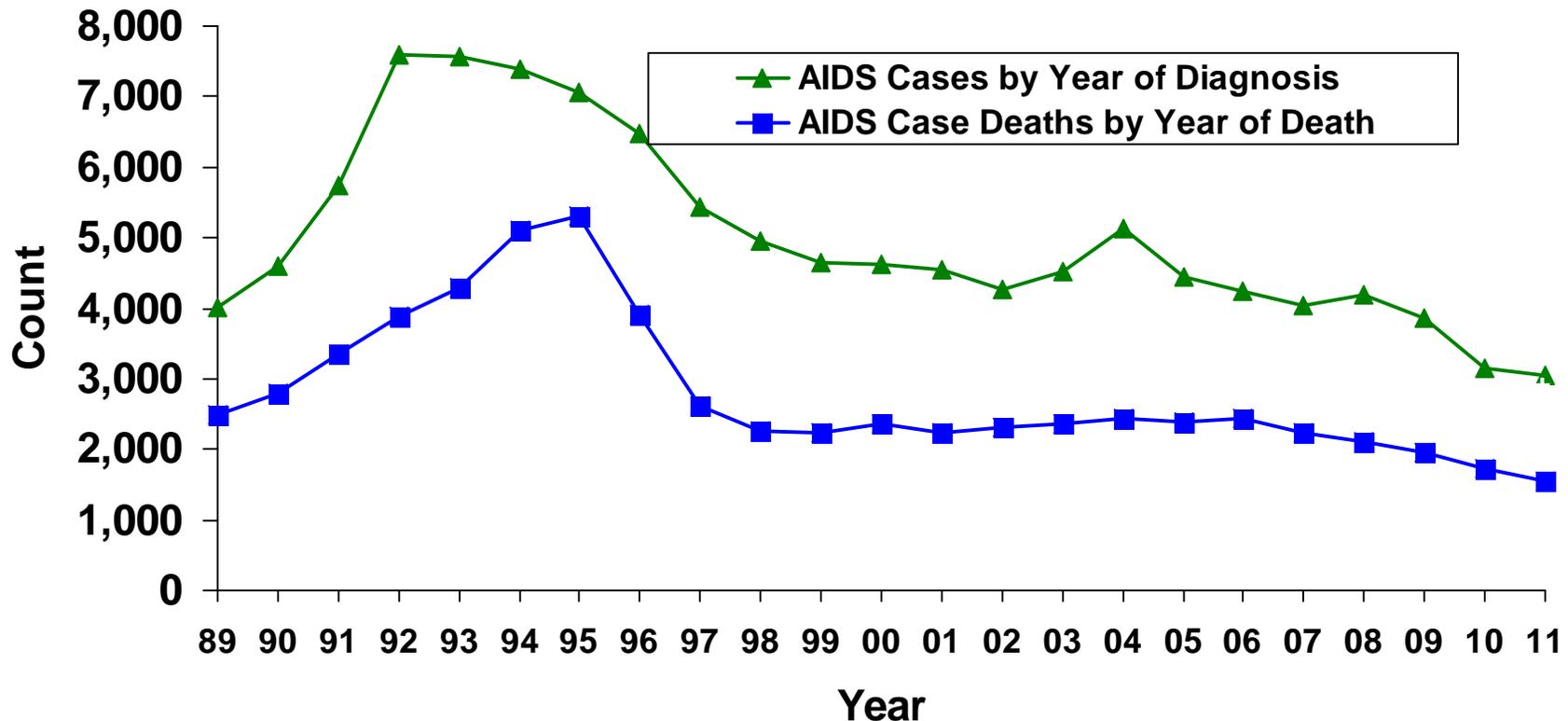
Resident Deaths* due to HIV Disease Compared to HIV/AIDS Cases** Known Dead, Regardless of Cause, by Year of Death, 1994-2011, Florida



*Source: Florida Department of Health, Bureau of HIV/AIDS, HIV/AIDS Reporting System (as of 07/12/2012)

**Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012)

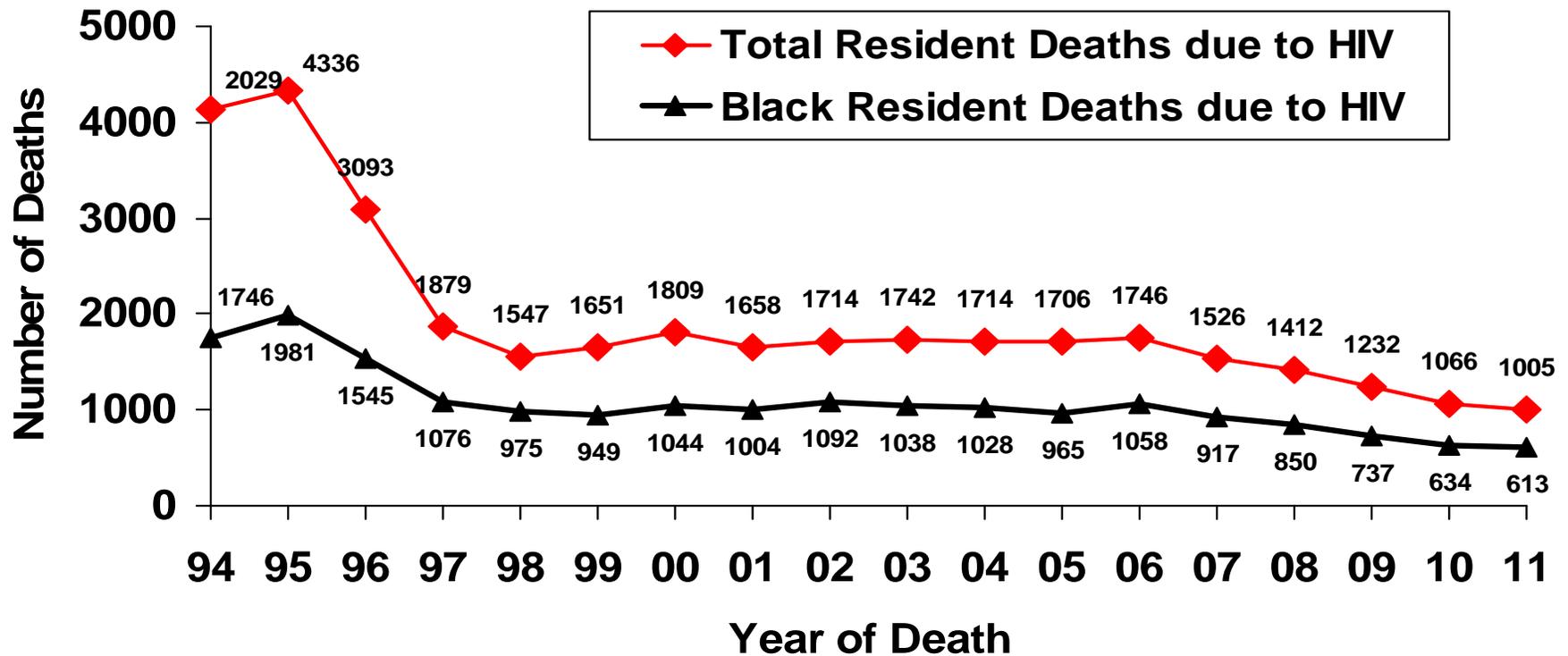
AIDS Cases, by Year of Diagnosis, Compared to AIDS Cases Known Dead, by Year of Death, 1989-2011, Florida*



Note: The peak in AIDS diagnoses during 1993 can be associated with the expansion of the AIDS surveillance case definition implemented in January 1993. The overall declines in new AIDS cases and deaths of persons with AIDS are due in part to the success of highly active antiretroviral therapies, introduced in 1996. In recent years, AIDS diagnoses and deaths of persons with AIDS have continued to decrease.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).

Total Resident Deaths due to HIV Disease, Compared to Resident Deaths due to HIV Disease among Blacks, by Year of Death*, 1994-2011, Florida



Note: There was a 5.7 % decrease in total resident death due to HIV from 2010 to 2011. A similar trend was seen among blacks where there was a 3.3% decrease in deaths due to HIV in the same period.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).



Resident Deaths* due to HIV Disease, by Race/Ethnicity and Year of Death, 2006-2011, Florida

Deaths	Total		White		Black		Hispanic	
	#	% change	#	% change	#	% change	#	% change
2006	1,746		429		1058		235	
2007	1,526	-12.6%	389	-9.3%	917	-13.3%	202	-14.0%
2008	1,412	-7.5%	364	-6.4%	850	-7.3%	177	-12.4%
2009	1,232	-12.7%	323	-11.3%	737	-13.3%	160	-9.6%
2010	1,066	-13.5%	286	-11.5%	634	-14.0%	122	-23.8%
2011	1,005	-5.7%	258	-9.8%	613	-3.3%	123	0.8%

Note: Overall, there has been a 77% decline in the number of Florida resident deaths due to HIV disease in Florida from 1995 (the peak of resident HIV deaths) to 2011. As of 2011, blacks still constitute a majority of HIV-related deaths (61%) and had similar annual decreases to the total. Hispanics constitute a low proportion of HIV-related deaths (12%), however, there was a nearly 1% increase in the number of deaths from 2010 to 2011.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).



Resident Deaths* due to HIV Disease, Number and Rate** by Race/Ethnicity, Sex and Year of Death, 2007-2011, Florida

Race/Ethnicity	2007		2008		2009		2010		2011	
	#	Rate								
White Male	311	5.6	299	5.4	258	4.6	225	4.1	201	3.8
White Female	78	1.3	65	1.1	65	1.1	61	1.1	57	1.0
Black Male	526	37.1	533	37.8	438	31.0	388	27.5	362	26.1
Black Female	391	25.6	317	20.9	299	19.7	246	16.2	251	16.7
Hispanic Male	161	8.2	133	6.6	126	6.2	96	4.6	97	4.5
Hispanic Female	41	2.1	44	2.2	34	1.7	26	1.3	26	1.2
Other (both sexes)	18	3.8	21	4.4	12	2.5	24	4.9	11	1.3
TOTAL	1,526	8.1	1,412	7.5	1,232	6.5	1,066	5.7	1,005	5.3

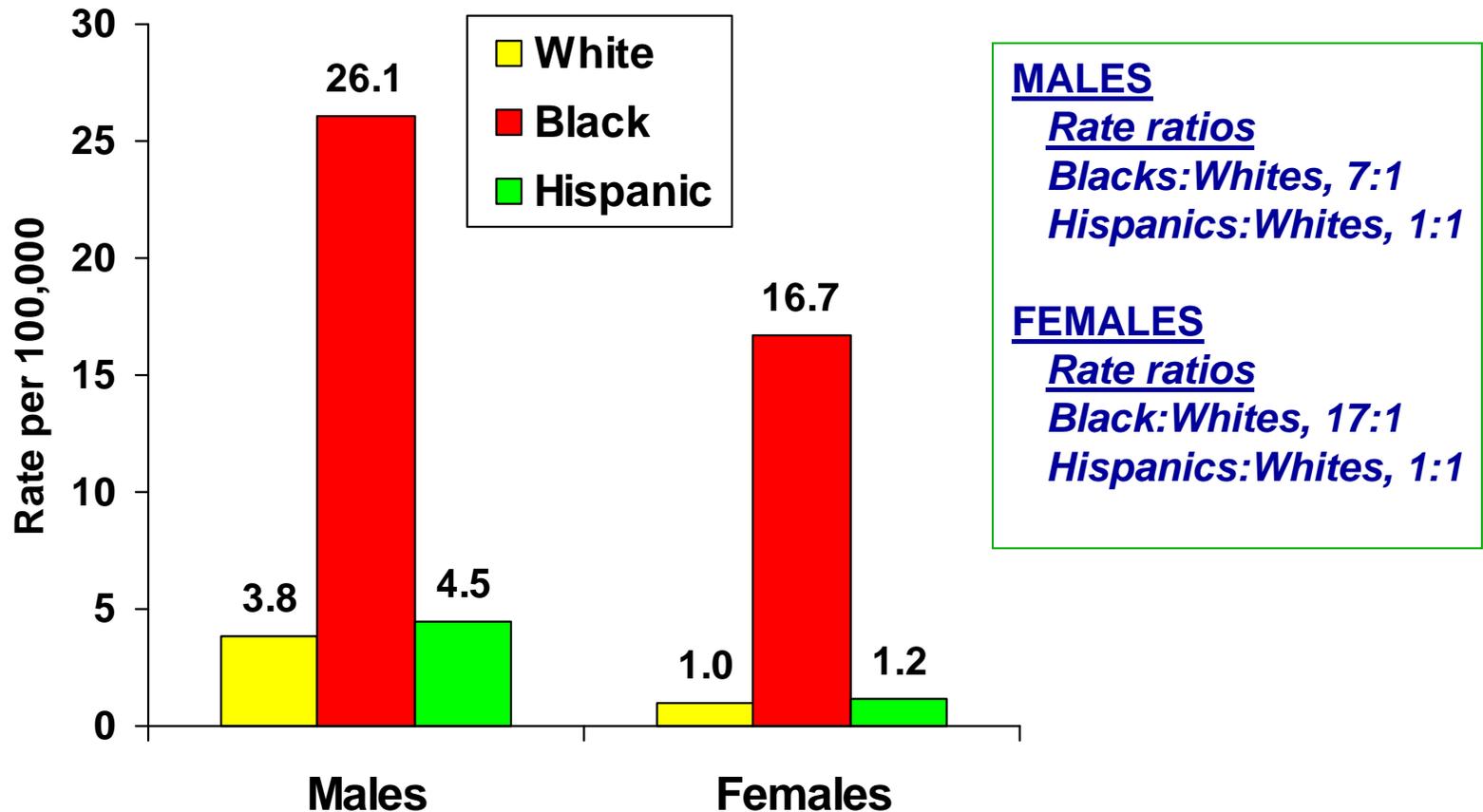
Note: Racial/ethnic disparities continue to be evident in the death rate data, where both black males and black females have the highest death rates.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).

**Source: Population data are provided by FloridaCHARTS.



Rate* of Resident Deaths** due to HIV Disease, by Sex and Race/Ethnicity, 2011, Florida

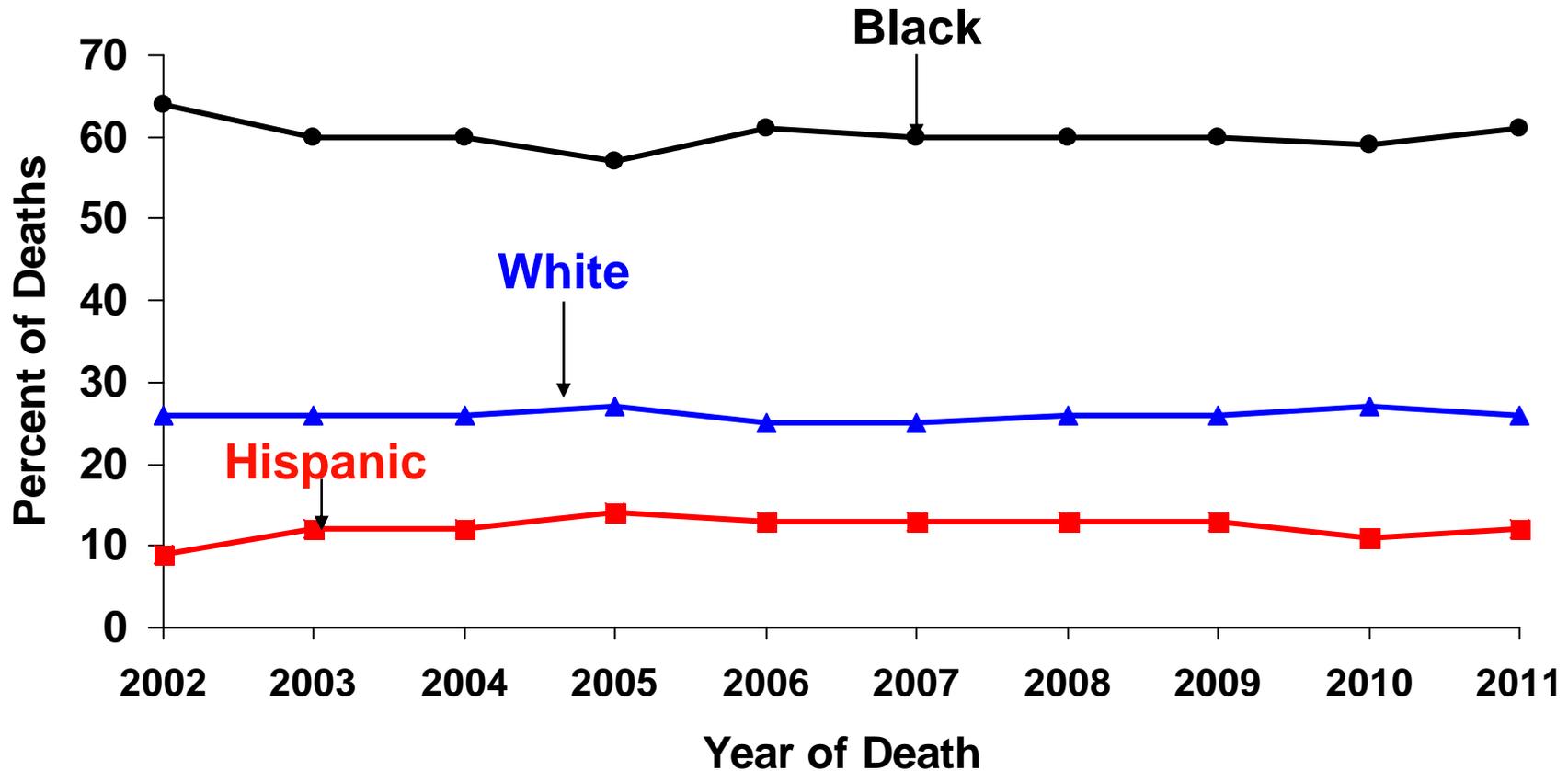


Note: In 2011, black males were 7 times as likely as white males to die of HIV/AIDS. The HIV/AIDS death rate among black females was 17 times higher than among white females.

*Source: Population data are provided by FloridaCHARTS.

**Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).

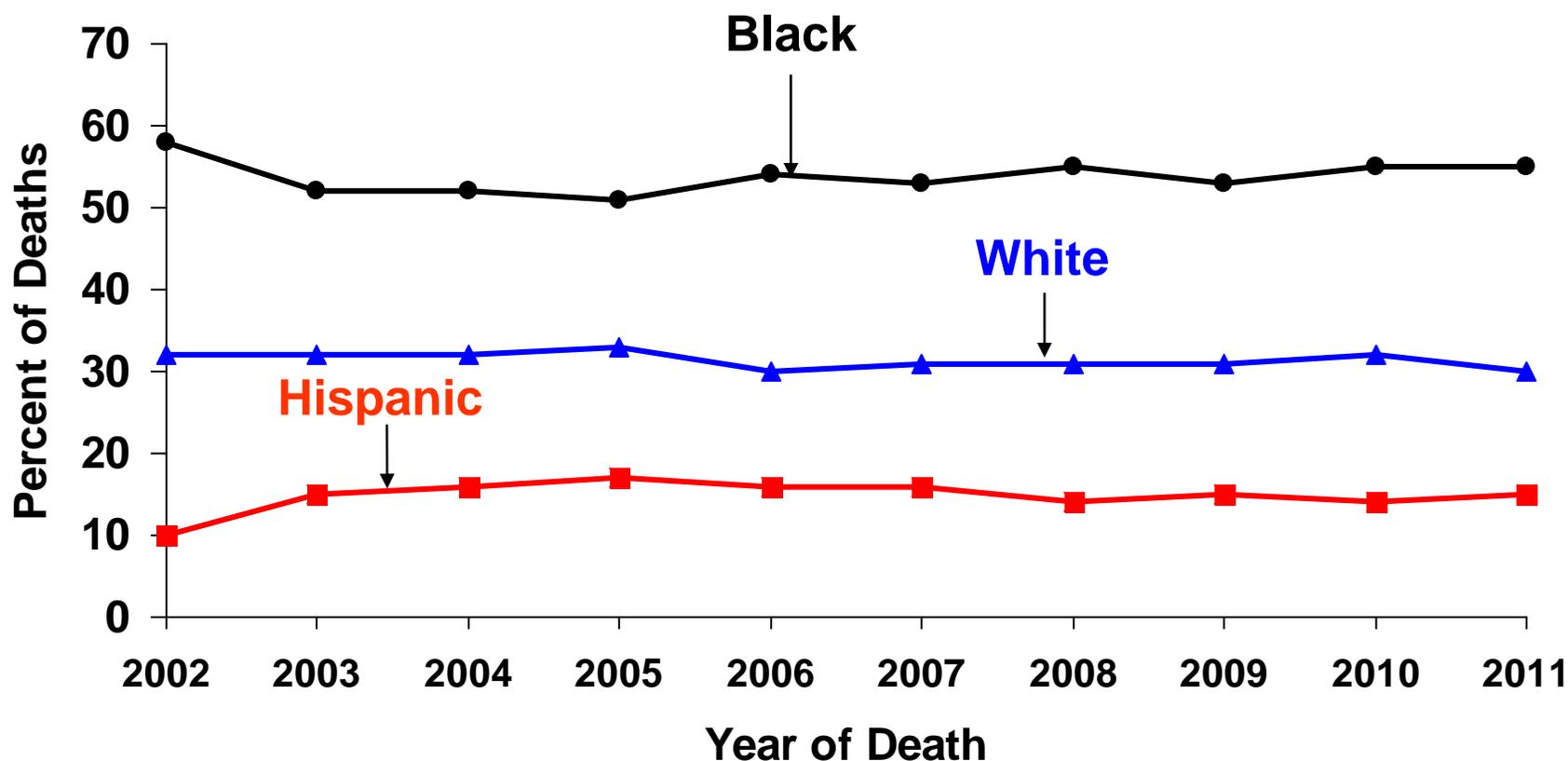
Resident Deaths* due to HIV Disease, by Race/Ethnicity and Year of Death, 2002-2011, Florida



Note: In 2011, the proportional distribution of resident HIV deaths due to HIV by race/ethnicity was: whites 26%, blacks 61%, Hispanics 12% and other 1%. This compares to 27%, 59%, 11% and 2% respectively for 2010.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).

Resident Deaths* due to HIV Disease among Males, by Race/Ethnicity and Year of Death, 2002-2011, Florida

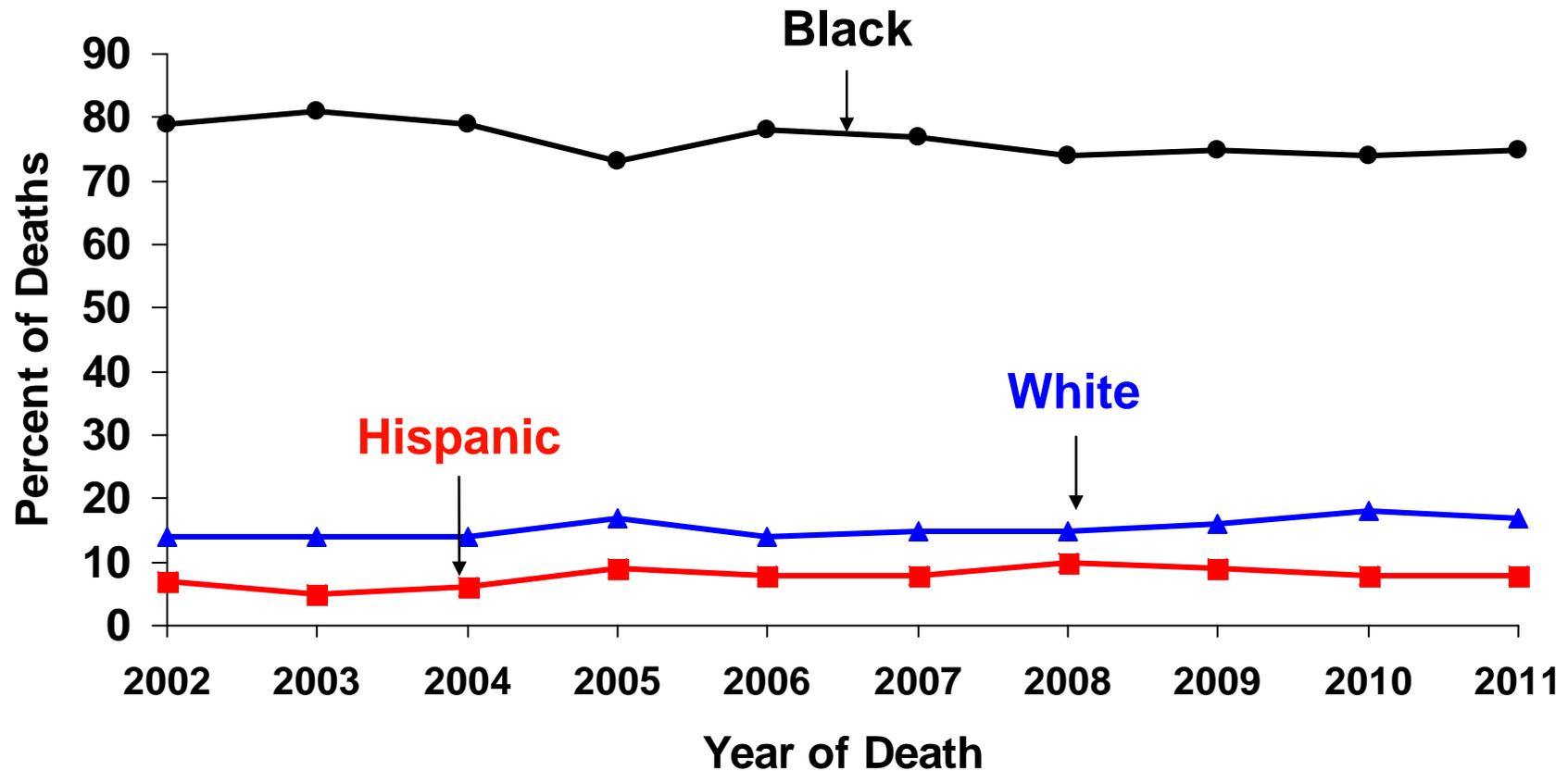


Note: In 2011, the proportional distribution of Male resident HIV deaths due to HIV Disease by race/ethnicity was: whites 30%, blacks 55% and Hispanics 15%. This compares to 32%, 55% and 14% respectively for 2010.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).



Resident Deaths* due to HIV Disease among Females by Race/Ethnicity and Year of Death, 2002-2011, Florida



Note: In 2011, the proportional distribution of Female resident HIV deaths due to HIV disease by race/ethnicity was: whites 17%, blacks 75% and Hispanics 8%. This compares to 17%, 74% and 8% respectively for 2010.

*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).

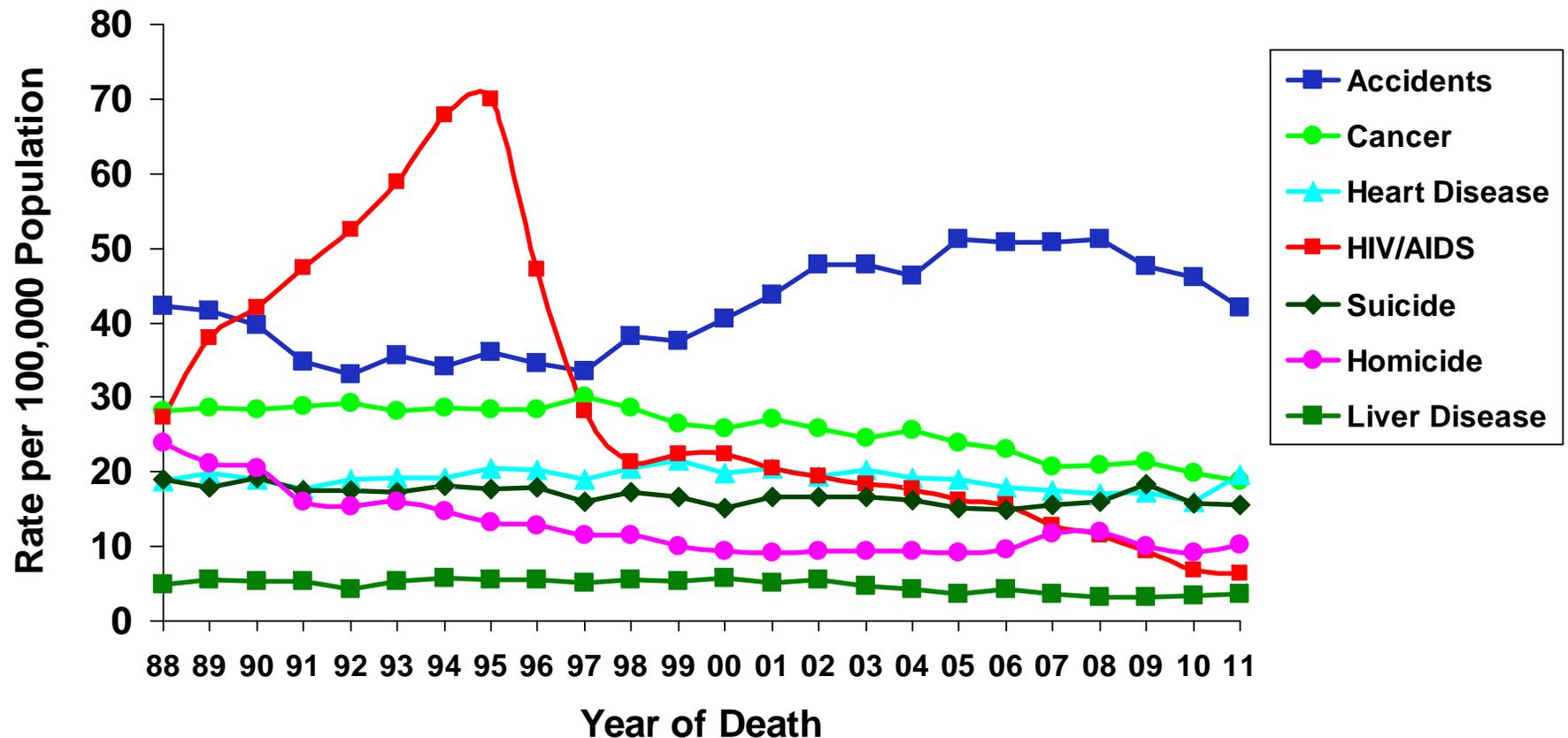


Resident Deaths due to HIV Disease among Persons 25-44 Years Old

Focusing on persons 25 to 44 years old emphasizes the importance of HIV disease among causes of death. Compared with rates among other age groups, the rate of death due to HIV disease is relatively high in this age group, but rates of death due to other causes are relatively low.

People 25-44 years old represent more than one-half of all newly reported cases of HIV disease in Florida. The large number of cases in this age group presents challenges for resources. Beyond that, deaths among this age group represent a significant source of years of potential life lost (YPLL). The average American can expect to live about 78 years; deaths due to HIV disease in those 25-44 represent between 34 and 54 YPLL each. Between 25 and 44 years of age people are typically working and having children. Deaths in this age group can potentially have large impacts on society from that perspective. Additionally, HIV disease-related deaths account for a larger proportion of overall deaths in this age group compared to other age groups.

Death Rates* for the Top 7 Leading Causes of Death** among Persons 25-44 Years Old, by Year of Death, 1988-2011, Florida



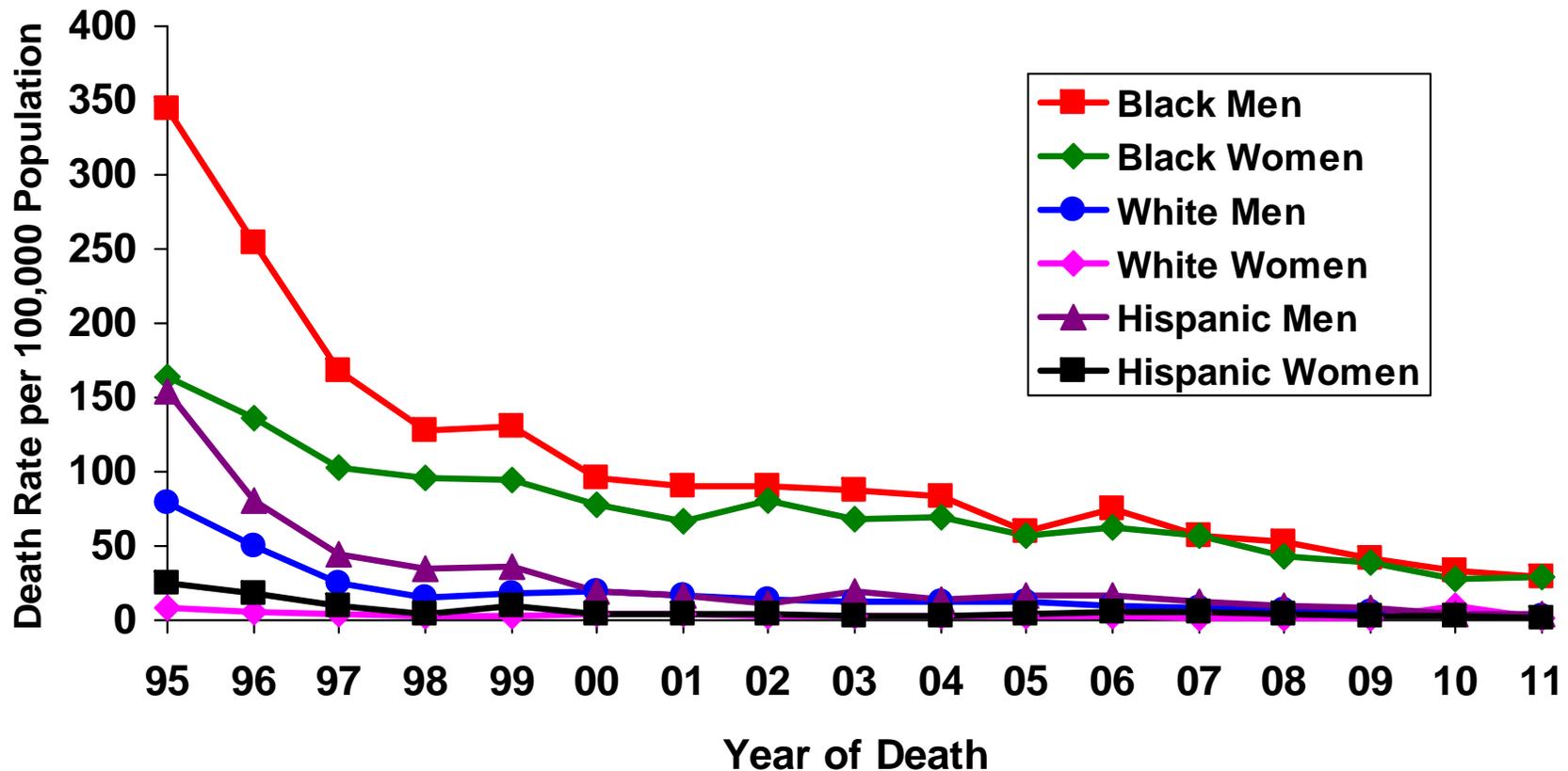
Note: The peak year for resident deaths due to HIV for person 25-44 years old was 1995. HIV was the 6th leading cause of death for this age group in 2009, 2010, & 2011.

*Source: Population data are provided by FloridaCHARTS.

**Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).



Annual Death* Rates** due to HIV Disease, among Persons 25-44 Years Old, by Race/Ethnicity and Sex, 1995-2011, Florida



Note: In every racial/ethnic group, the death rate has decreased greatly since 1995.

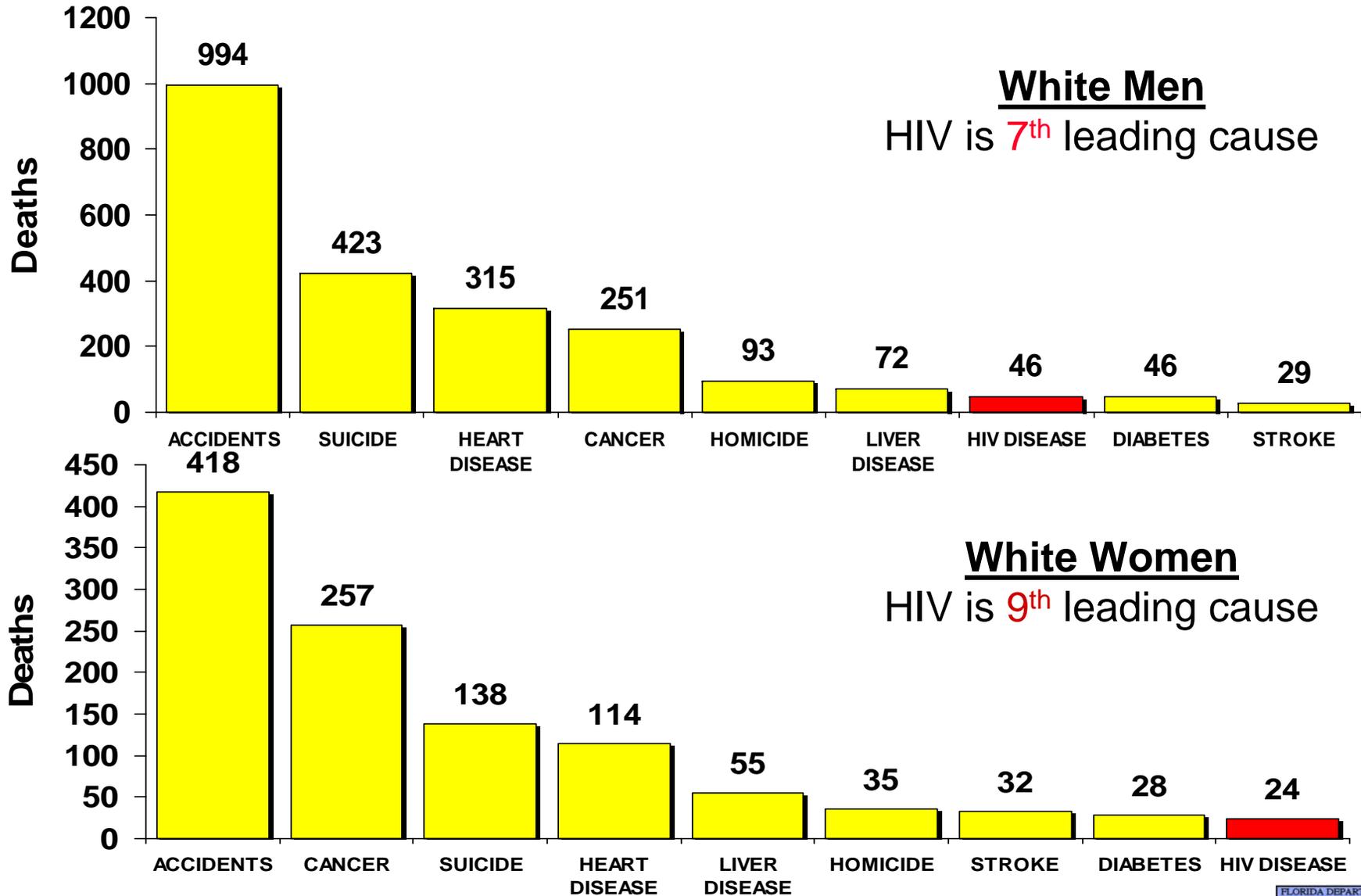
*Source: Florida Department of Health, Office of Vital Statistics, Death Certificates (as of 07/12/2012).

**Population data are provided by FloridaCHARTS.

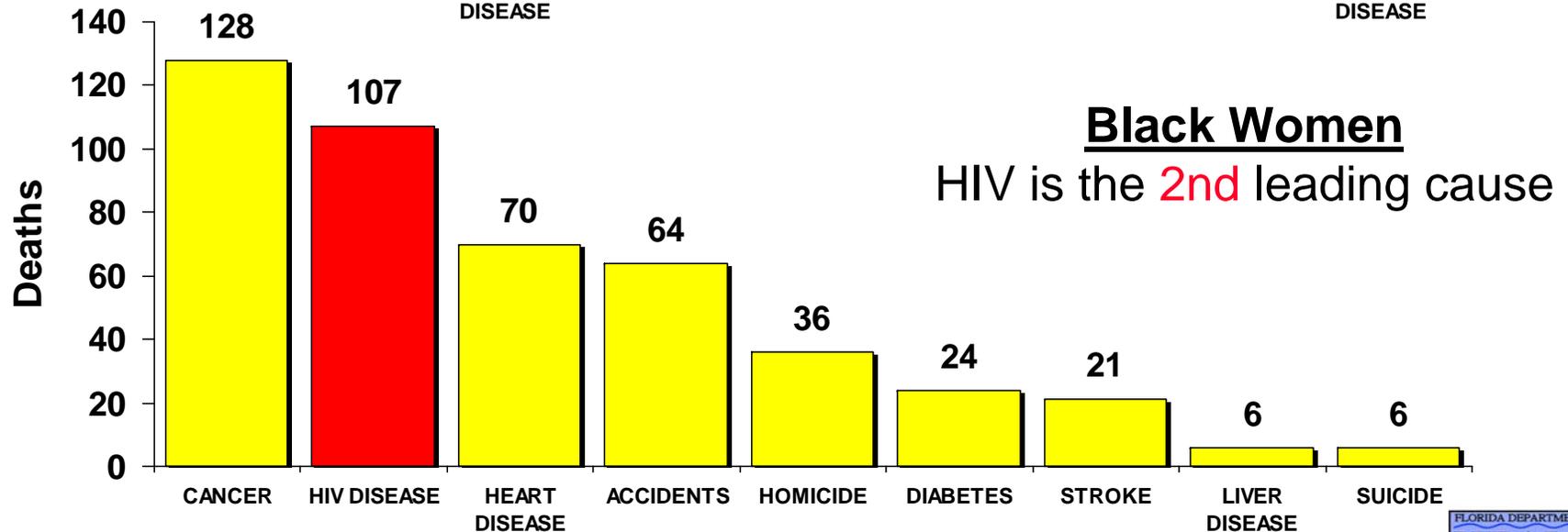
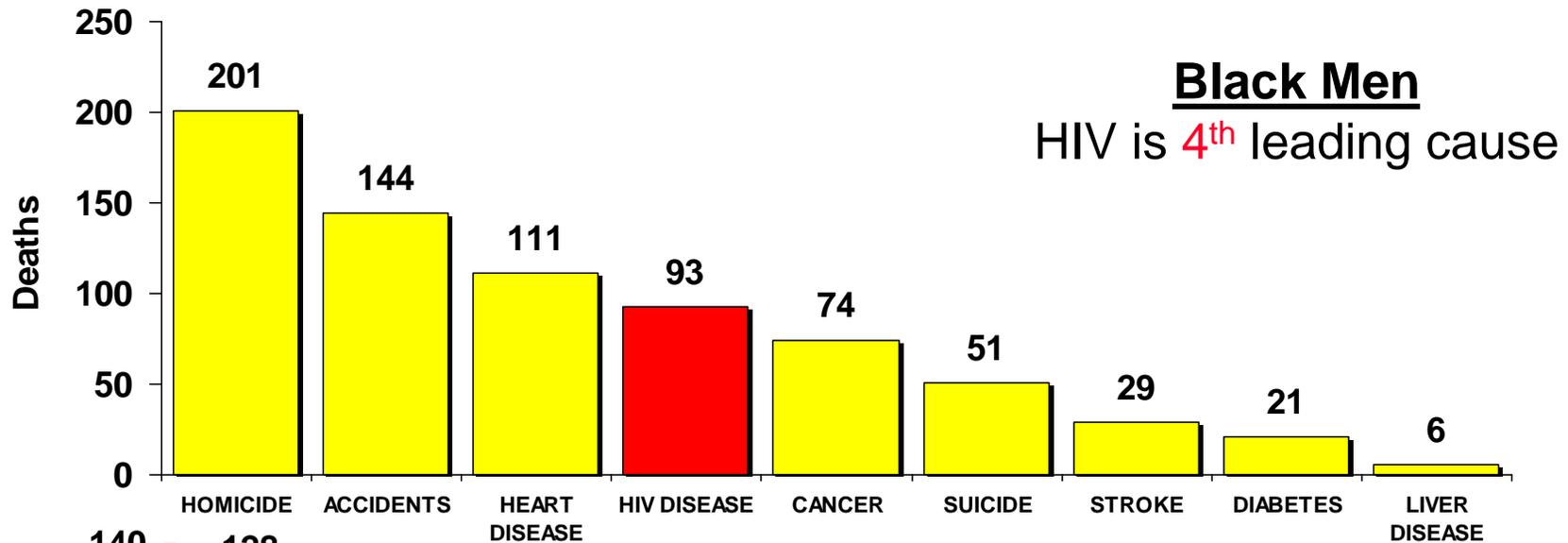
Deaths due to HIV Disease among Persons 25 to 44 Years Old, 2011, Florida

- HIV is the 6th leading cause overall
- HIV is the 4th leading cause among blacks
(down from number 1 for the first time ever since 1988).
- HIV is the 8th leading cause among both whites.
- HIV is still the 6th leading cause of death among Hispanics
- HIV is still the 6th leading cause of death among males but the 5th leading cause among females:
 - **Among Males:**
 - HIV is still the 7th leading cause among whites,
 - The 4th leading cause among blacks and
 - The 7th leading cause among Hispanics.
 - **Women:**
 - HIV is the 9th leading cause among whites,
 - Still The 2nd leading cause among blacks
(down from number 1 for the first time ever since 1988) and
 - The 8th leading cause among Hispanics.

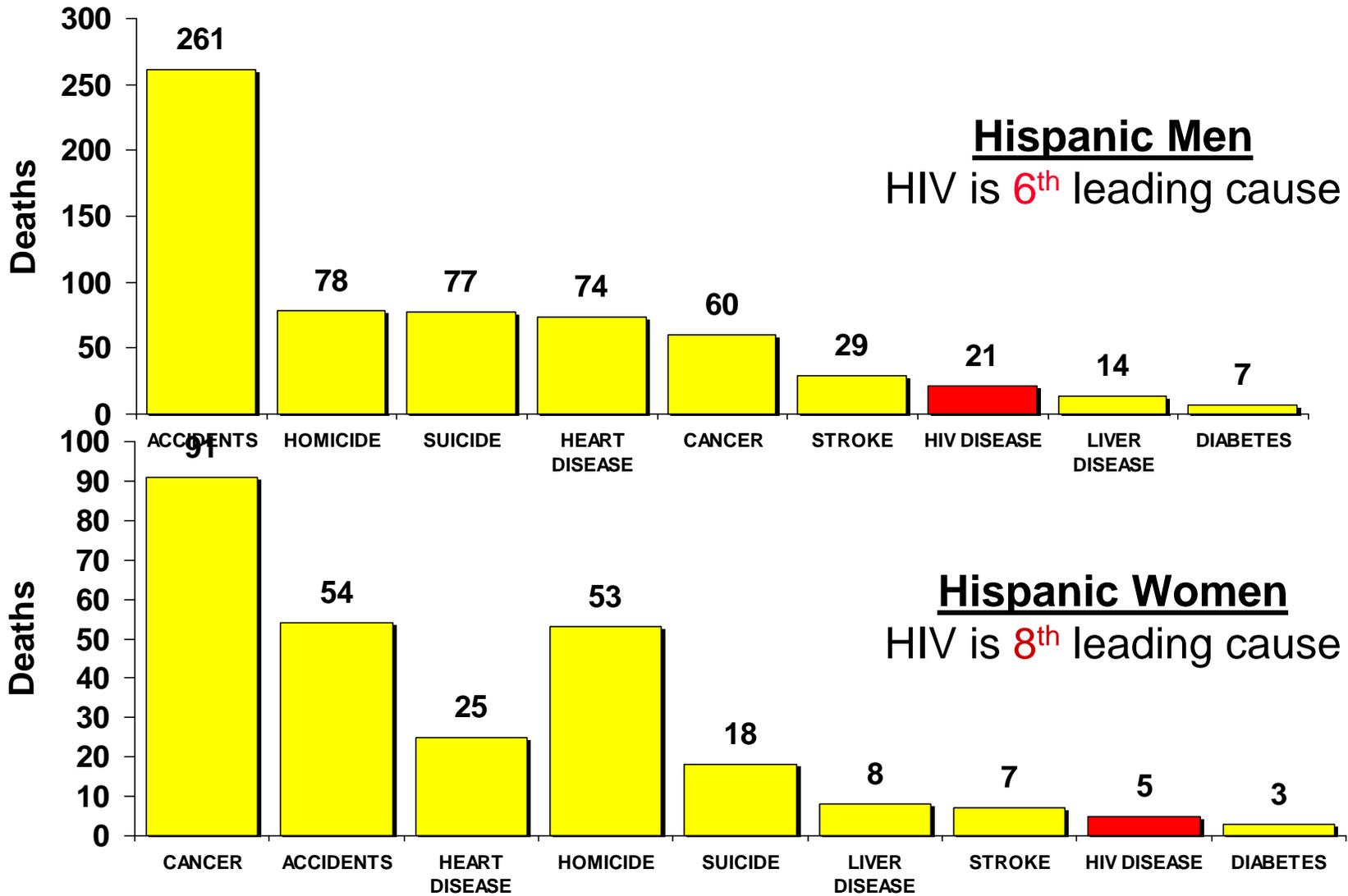
Leading Causes of Death among Whites 25-44 Years Old by Sex, 2011, Florida



Leading Causes of Death among Blacks 25-44 Years Old by Sex, 2011, Florida



Leading Causes of Death among Hispanics 25-44 Years Old by Sex, 2011, Florida



Ten Leading Causes of Deaths by Age Group, Florida, 2011

Rank	Age Groups								
	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54
1	Perinatal Conditions 723	Unintentional Injuries 106	Malignant Neoplasms (Cancer) 30	Unintentional Injuries 52	Unintentional Injuries 244	Unintentional Injuries 415	Unintentional Injuries 1,008	Unintentional Injuries 967	Malignant Neoplasms (Cancer) 3,163
2	Congenital Malformations 248	Congenital Malformations 27	Congenital Malformations 22	Malignant Neoplasms (Cancer) 21	Homicide 96	Homicide 198	Suicide 351	Cardiovascular Diseases 706	Cardiovascular Diseases 2,560
3	Unintentional Injuries 85	Cardiovascular Diseases 20	Cardiovascular Diseases 11	Suicide 14	Suicide 79	Suicide 152	Homicide 294	Malignant Neoplasms (Cancer) 698	Unintentional Injuries 1,407
4	Cardiovascular Diseases 22	Homicide 18	In Situ Benign Neoplasms 8	Congenital Malformations 9	Malignant Neoplasms (Cancer) 34	Malignant Neoplasms (Cancer) 44	Cardiovascular Diseases 204	Suicide 381	Suicide 678
5	Respiratory Diseases 13	Malignant Neoplasms (Cancer) 14	Respiratory Diseases 7	Homicide 8	Cardiovascular Diseases 16	Cardiovascular Diseases 37	Malignant Neoplasms (Cancer) 182	Homicide 185	Digestive Diseases 340
6	Infectious Diseases 11	Respiratory Diseases 9	Infectious Diseases 6	Cardiovascular Diseases 7	Congenital Malformations 12	HIV 22	HIV 88	Digestive Diseases 146	Respiratory Diseases 440
7	Urinary Tract Diseases 5	In Situ, Benign Neoplasms 6	Homicide 5	Respiratory Diseases 4	Respiratory Diseases 9	Congenital Malformations 14	Respiratory Diseases 41	HIV 123	Diabetes Mellitus 390
8	Malignant Neoplasms (Cancer) 4	Infectious Diseases 3	Anemias 5	Diabetes Mellitus 2	HIV 6	Respiratory Diseases 14	Infectious Diseases 32	Diabetes Mellitus 100	HIV 380
9	Nervous System Diseases 3	Urinary Tract Diseases 2	Urinary Tract Diseases 1	In Situ Benign Neoplasms 2	Anemias 5	Diabetes Mellitus 10	Diabetes Mellitus 31	Respiratory Diseases 93	Infectious Diseases 271
10	Digestive Diseases 2	Nervous System Diseases 1	Nervous System Diseases 1	Infectious Diseases/ Nervous System Diseases 1	Diabetes Mellitus/Infectious Diseases 4	Anemias/Infectious Diseases 7	Digestive Diseases/Pregnancy or Childbirth Complications 27	Infectious Diseases 63	Urinary Tract Diseases 157

**Median Survival Time (in months)
from AIDS Diagnosis to Death, by Race/Ethnicity and
Time Period of Death, 1980-2011, Florida**

	<u>Time Period of Death</u>				
	<u>Early Years</u>		<u>HAART</u>		
	<u>1980-1988</u>	<u>1989-1995</u>	<u>1996-2000</u>	<u>2001-2006</u>	<u>2007-2011</u>
White	4 mo.	15 mo.	32 mo.	60 mo.	80 mo.
Black	1 mo.	10 mo.	22 mo.	42 mo.	57 mo.
Hispanic	3 mo.	12 mo.	23 mo.	45 mo.	58 mo.
Amer. Ind.	n/a	14 mo.	21 mo.	28 mo.	86 mo.
Asian	1 mo.	13 mo.	24 mo.	21 mo.	29 mo.

Note: In the early years, survival times for increased for all race/ethnicity groups with the introduction of AZT in 1994. With the introduction of Highly Active Retroviral Therapy (HAART) in 1996, survival time increased significantly for all age groups, however, overall survival times are not without racial/ethnic disparities.

*Source: Florida Department of Health, Bureau of HIV/AIDS, HIV/AIDS Reporting System (as of 07/12/2012)



Median Survival Time (in months) from AIDS Diagnosis to Death, by Sex and Total Deaths for this Period, 2007-2011, Florida

Period of Death: 2007 - 2011		
<u>Males</u>	<u>Females</u>	<u>TOTAL</u>
68 mo.	53 mo.	62 mo.
6,613 deaths	2,943 deaths	9,556 deaths

Note: These data show that the median survival time for females is about 15 months less than for males. This could be due to women being diagnosed with AIDS later in their course of illness thus shortening their apparent survival time. However, it could also reflect that females enter care for HIV disease later, have more drug adherence issues, or a host of other factors that could be damaging to a patient's underlying health status and outcomes

*Source: Florida Department of Health, Bureau of HIV/AIDS, HIV/AIDS Reporting System (as of 07/12/2012)

**Median Survival Time (in months)
from AIDS Diagnosis to Death, by Race/Ethnicity and Sex,
and Total Deaths for this Period, 2007-2011, Florida**

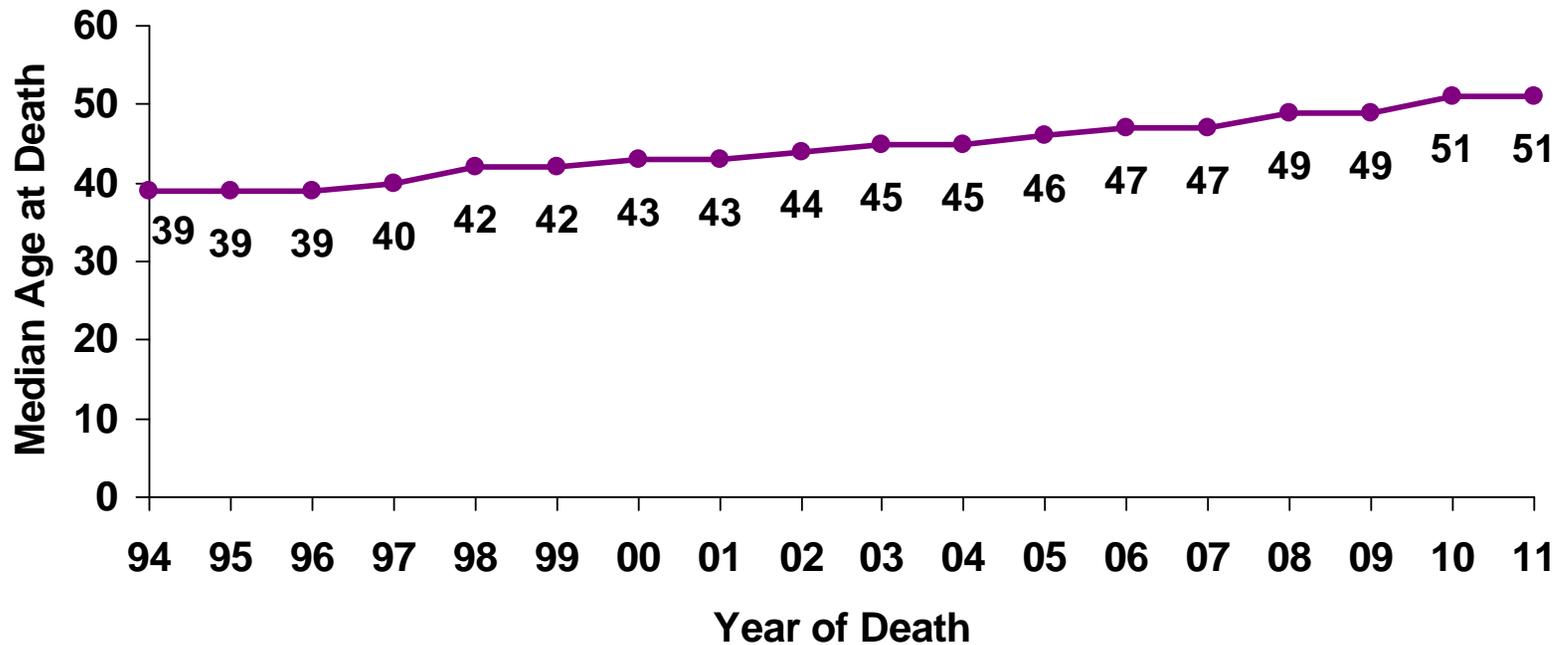
Period of Death: 2007 - 2011			
	<u>Males</u>	<u>Females</u>	<u>TOTAL</u>
White	86 mo.	54 mo.	80 mo.
	2,104 deaths	443 deaths	2,547 deaths
Black	61 mo.	53 mo.	57 mo.
	3,189 deaths	2,069 deaths	5,258 deaths
Hispanic	59 mo.	56 mo.	58 mo.
	1,106 deaths	339 deaths	1,445 deaths
Amer. Ind.	95 mo.	27 mo.	86 mo.
	28 deaths	8 deaths	36 deaths
Asian	30 mo.	26 mo.	29 mo.
	27 deaths	9 deaths	36 deaths

Note: These data show that the differences in median survival time by gender discussed on the previous table are not uniform for all racial/ethnic groups. For instance, the gender difference among whites, American Indians, and Asians is much larger than the difference between genders for blacks and Hispanics. This confirms the assertion that there are not biologic differences between these groups that account for their differences in outcomes but rather it is most likely social and cultural barriers that are leading to poorer outcomes.

*Source: Florida Department of Health, Bureau of HIV/AIDS, HIV/AIDS Reporting System (as of 07/12/2012)



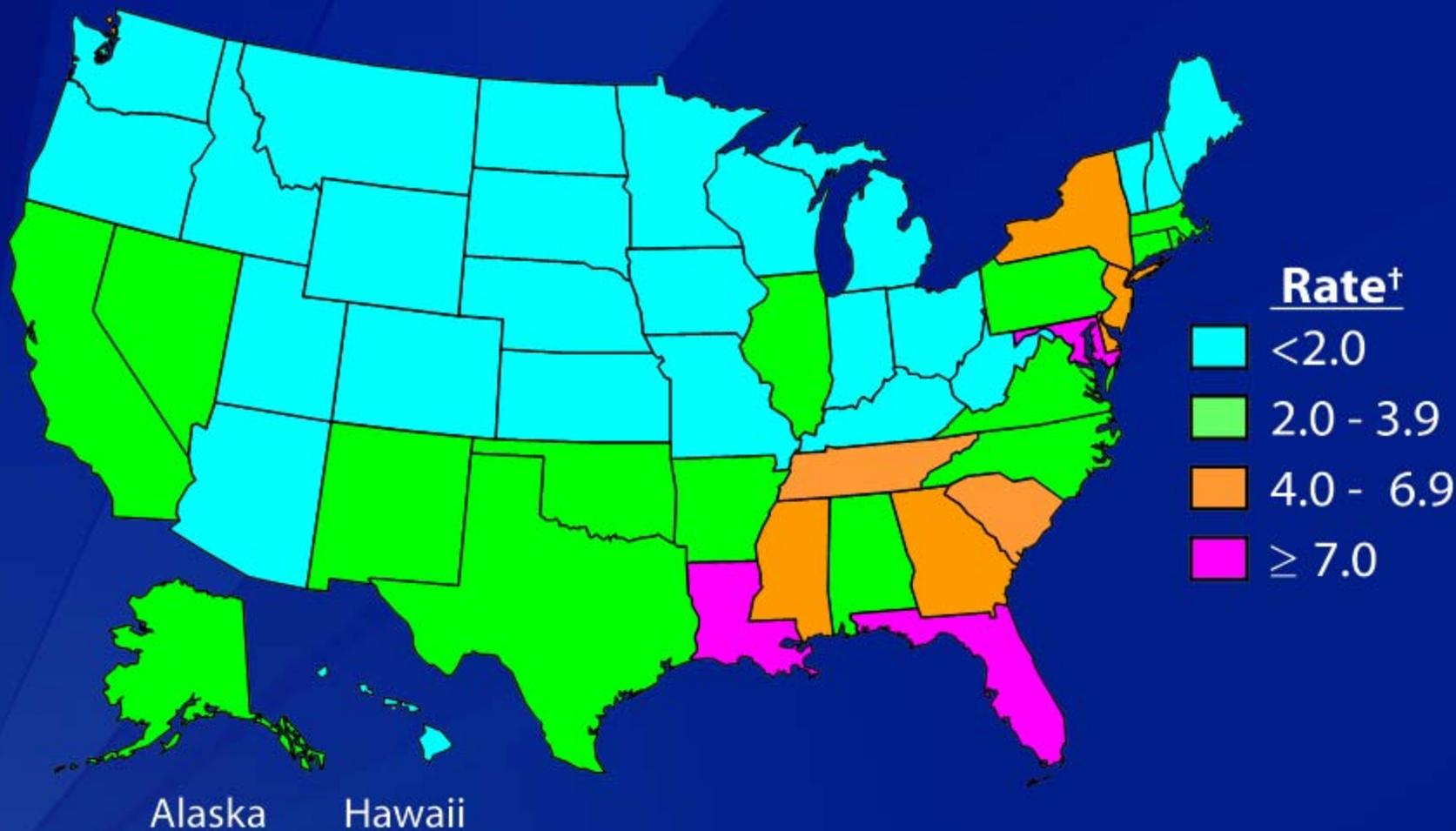
Median Age at Death among HIV/AIDS Cases Known Dead Regardless of Cause, 1994-2011, Florida



The median age at death among HIV/AIDS cases increased from 39 years in 1994 to 51 in 2011. This is a reflection of the trend in delaying progression from HIV to AIDS and therefore delaying the occurrence of opportunistic infections and other conditions that often lead to death.

*Source: Florida Department of Health, Bureau of HIV/AIDS, HIV/AIDS Reporting System (as of 07/12/2012)

Age-Adjusted* Rate[†] of Death due to HIV Disease by State, United States, 2008



*Standard: age distribution of 2000 US population
†Per 100,000 population.



Conclusions

- ⊗ Florida has one of the highest HIV disease death rates in the U.S.
- ⊗ HIV disease-related deaths in Florida increased rapidly in the 1980's and peaked in 1995 after which there was a sharp decline. After 1998 the annual number of HIV disease-related deaths remained relatively stable. However, since 2007 Florida has seen an annual decrease in the number of HIV disease-related deaths to an overall low of 1,005 deaths reported in 2011.
- ⊗ The decrease in the HIV disease-related death rate starting in 1996 was largely due to improvements in antiretroviral therapies, including highly active anti-retroviral therapies (HAART). Additionally, improved treatments for and prophylaxis of opportunistic infections may also have contributed to this decrease.
- ⊗ The median survival time from AIDS diagnosis to death has increased dramatically from 1-4 months in the 1980's to 3-5 years in the 2000's. This is also due to improvements in treatments for HIV disease and prevention of opportunistic infections. As a result, persons with HIV disease are living longer on average in 2011 than they were in 1995.



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- Slide Sets and Fact Sheets**
- Annual Reports and Epi Profiles**

http://www.doh.state.fl.us/disease_ctrl/aids/trends/trends.html

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Surveillance Reports, fact sheets and slide sets

<http://www.cdc.gov/hiv/topics/surveillance/resources/reports/index.htm>