

2007-2009 Florida HIV Incidence Estimates

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Outline

- Background
- Estimate numbers
- Conclusions
- Contact

Background

- ❑ AIDS data does not represent all populations affected by the HIV epidemic
- ❑ HIV Incidence Surveillance provides a window into time at the earliest stage of HIV disease
- ❑ HIV incidence surveillance was initiated in 2004 but total state implementation occurred October 2005

HIV Incidence Definition

- The number or proportion of new HIV infections within a specific population at a defined time period

- The serologic testing algorithm for recent HIV seroconversion (STARHS)
 - Testing algorithm used on remnant blood-based specimens
 - Capable of identifying whether a HIV infection is recent or long-standing (> than five months)

Pieces of the Estimation Pie

- Factors contributing to incidence estimation:
 - STARHS results
 - classified as recent or long-standing (> five months)
 - Testing interval among new testers (testing and treatment history data TTH)
 - Year of diagnoses
 - Weighted calculated variables to account for missing data

Disclaimer

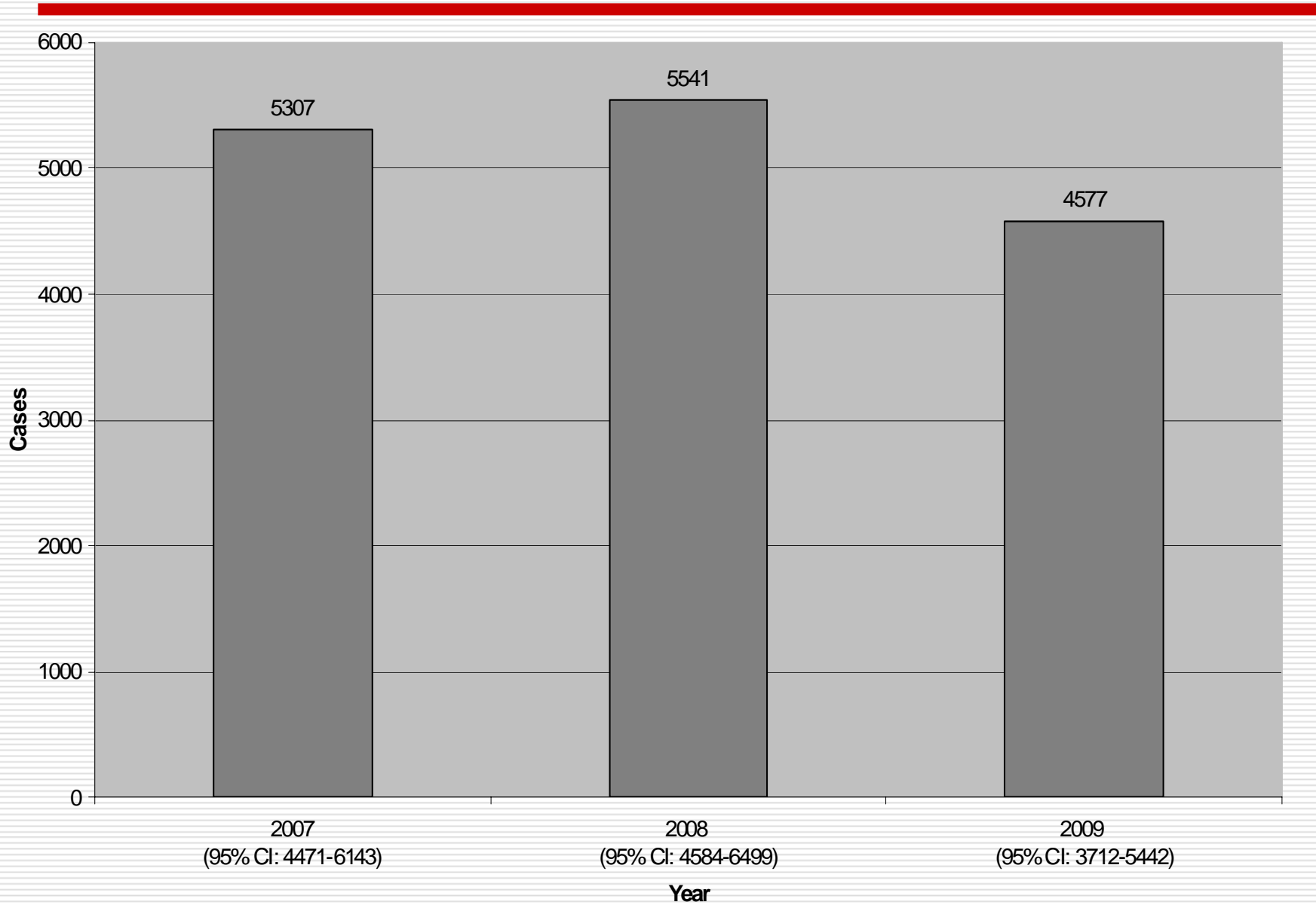
- As a result in changes of methodologies used by Centers for Disease Control and Prevention (CDC) and STARHS testing only applied to publicly funded sites in 2006, data were not of sufficient completeness to re-create a 2006 state estimate
- CDC does not recommend making cross tabulated analysis of variables where data completeness is less than 15%

Disclaimer (continued)

- Confidence intervals reflect random variability affecting model uncertainty but may not reflect model-assumption uncertainty; thus, they should be interpreted with caution

- The 'Other' race was combined with the White race category
 - Other race is less than 2% of newly diagnosed HIV positives
 - Includes individuals who categorize as Multi-race, Asian, American Indian/Alaska Native or Native Hawaiian/Pacific Islander
 - Did not want to inflate numbers of Black or Hispanic race/ethnicity category

Annual HIV Incidence Estimates, Florida (2007-2009)

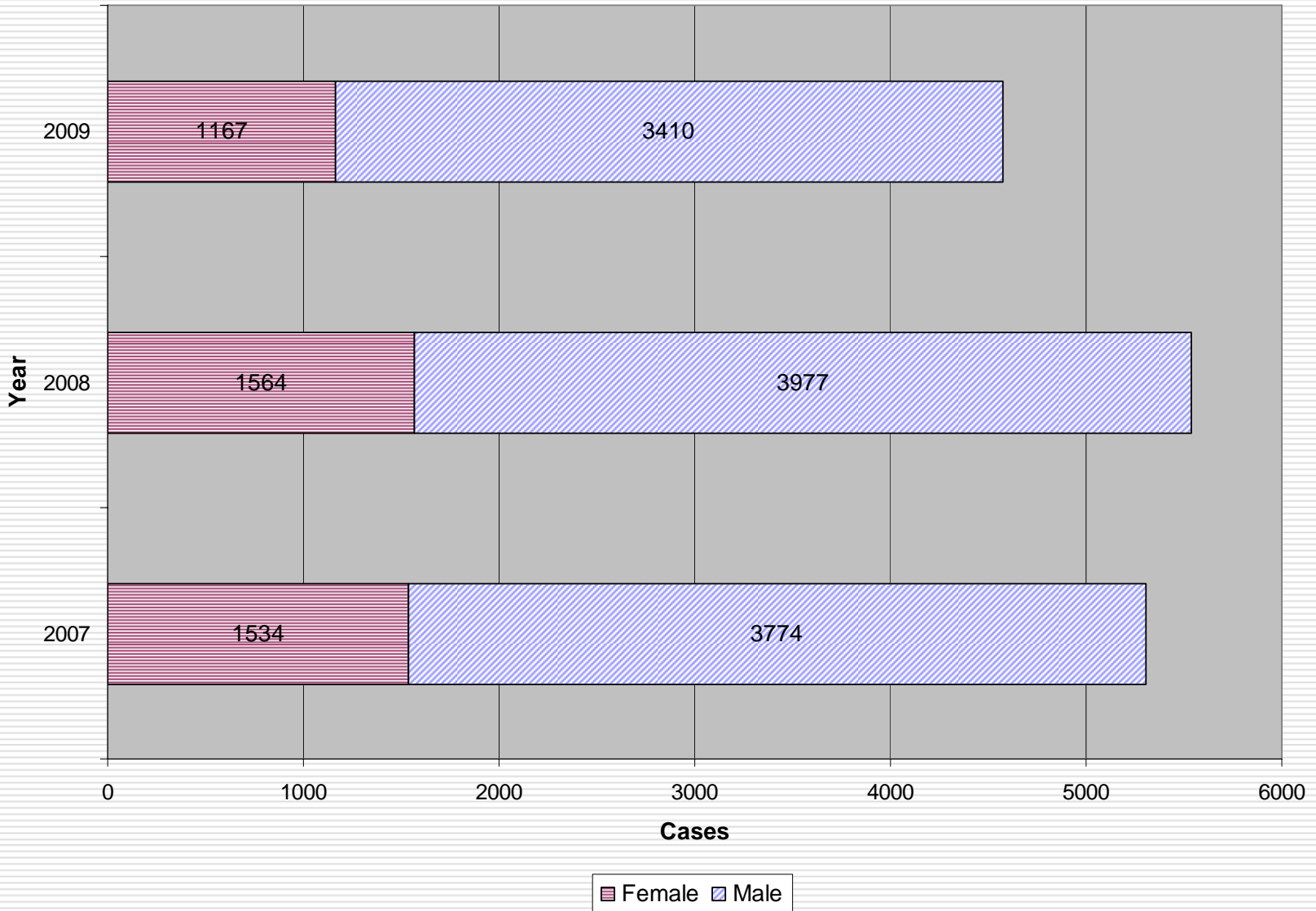


Estimate Numbers by Demographic Categories, Florida

	2007				2008				2009			
	Incidence		95% CI		Incidence		95% CI		Incidence		95% CI	
	No.	Percent	L	U	No.	Percent	L	U	No.	Percent	L	U
Total	5307		4471	6143	5541		4584	6499	4577		3712	5442
Sex												
Male	3774	71%	3086	4460	3977	72%	3185	4767	3410	74%	2645	4174
Female	1534	29%	1132	1937	1564	28%	1183	1946	1167	26%	882	1453
Race/Ethnicity												
White/Other	1951	37%	1522	2380	1706	31%	1283	2130	1370	30%	1016	1725
Black	2210	42%	1774	2646	2582	47%	2036	3120	2087	46%	1610	2562
Hispanic	1146	22%	838	1452	1252	23%	909	1596	1120	24%	788	1453
Age at Infection												
13-29	1668	31%	1328	2009	1632	29%	1307	1957	1608	35%	1280	1937
30-39	1528	29%	1181	1875	1425	26%	1032	1817	1257	27%	893	1622
40-49	1410	27%	1035	1784	1579	28%	1152	2007	1204	26%	852	1556
50+	700	13%	457	944	906	16%	586	1225	507	11%	303	711
Transmission Category *												
MSM	2891	54%	2322	3462	2636	48%	2073	3199	2407	53%	1836	2977
IDU	523	10%	315	730	511	9%	264	757	369	8%	181	556
Heterosexual/ Other	1893	36%	1464	2322	2395	43%	1821	2969	1802	39%	1349	2255

* Imputed value

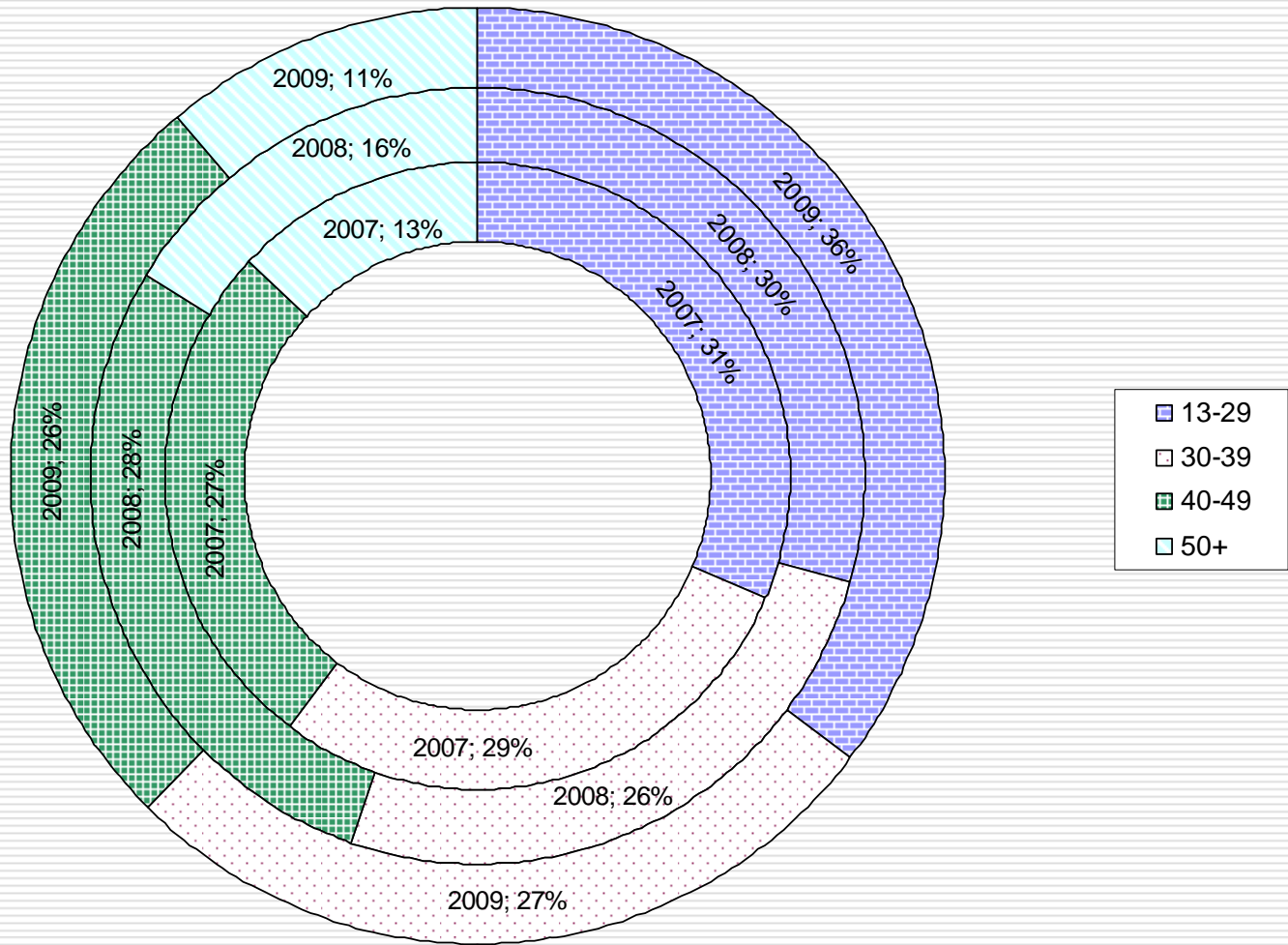
Florida 2007-2009 HIV Incidence Estimates by Sex



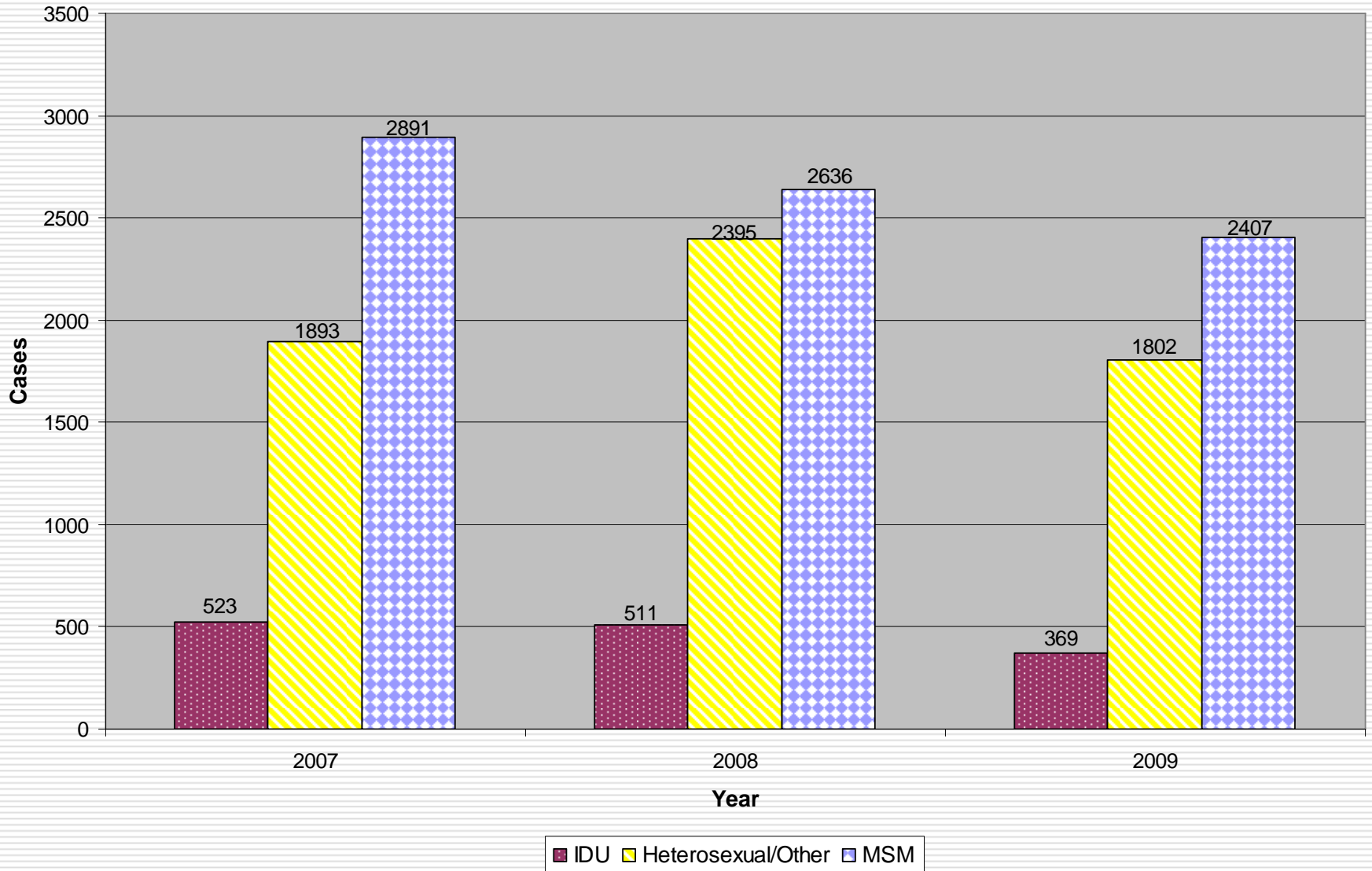
Florida 2007-2009 HIV Incidence Estimates
by Race/Ethnicity



**Florida 2007-2009 HIV Incidence Estimates
Age at Infection (imputed) Percent of Total**



**Florida 2007-2009 HIV Incidence Estimates
by Transmission Category (imputed)**



Incidence Rates Across Years, Florida

	2007			2008			2009		
	FL Population +	Incidence		FL Population +	Incidence		FL Population +	Incidence	
	No.	No.	Rate per 100,000	No.	No.	Rate per 100,000	No.	No.	Rate per 100,000
Total	15,756,096	5307	33.7	15,829,200	5541	35.0	15,855,876	4577	28.9
Sex									
Male	8,101,067	3774	46.6	8,131,025	3977	48.9	8,141,503	3410	41.9
Female	7,655,029	1534	20.0	7,698,175	1564	20.3	7,714,372	1167	15.1
Race/Ethnicity									
White/Other	10,296,564	1951	18.9	10,286,910	1706	16.6	10,310,933	1370	13.3
Black	2,309,823	2210	95.7	2,301,739	2582	112.2	2,305,398	2087	90.5
Hispanic	3,149,709	1146	36.4	3,240,552	1252	38.6	3,239,546	1120	34.6
Age at Infection									
13-29	4,035,385	1668	41.3	4,042,524	1632	40.4	4,038,616	1608	39.8
30-39	2,361,805	1528	64.7	2,333,530	1425	61.1	2,295,710	1257	54.8
40-49	2,696,730	1410	52.3	2,661,895	1579	59.3	2,620,570	1204	45.9
50+	6,662,182	700	10.5	6,791,253	906	13.3	6,900,975	507	7.3
Transmission Category *									
MSM		2891			2636			2407	
IDU		523			511			369	
Heterosexual/ Other		1893			2395			1802	

+ Florida adult and adolescent population totals 13 years and older.

* Imputed Value (It is not possible to calculate rates on transmission categories as population level data is not available).

Incidence Rates

- ❑ Rates cannot be calculated for transmission categories because of the lack of population totals
- ❑ In all years studied, groups with high rates of incidence were Male, Black/African American, and adults aged 30-39 at the time of infection
- ❑ White/Other rate did decrease significantly from 2007-2009 (18.9 – 13.3 rate per 100,000)
- ❑ Although there was a significant decrease in the 50+ age at infection strata from 2008-2009, over the three years there was not a significant change

2009 Demographic Percent of New Infections National versus Florida

	2009 National		2009 Florida	
	Incidence		Incidence	
	No.	Percent	No.	Percent
Total	48,100		4,577	
Sex				
Male	37,037	77%	3,410	74%
Female	11,063	23%	1,167	26%
Race/Ethnicity				
White	15,392	32%	1,370	30%
Black	21,164	44%	2,087	46%
Hispanic	9,620	20%	1,120	24%
Other	962	2%	**	
Age at Infection				
13-29	18,759	39%	1,608	35%
30-39	12,987	27%	1,257	27%
40-49	11,063	23%	1,204	26%
50+	5,291	11%	507	11%
Transmission Category *				
MSM	29,341	61%	2,407	53%
Heterosexual	12,987	27%	1,802	39%
IDU	4,329	9%	369	8%
MSM & IDU	1,443	3%	!!	
Other	495	1%	##	

* Imputed Value

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FL combined the White and Other race categories

Not a transmission category in FL's data

Other was combined with Heterosexual for FL's data

2009 Demographic Rates of New Infections

National versus Florida

Category	2009			
	National Incidence ¹		Florida Incidence	
	No.	Rate per 100,000	No.	Rate per 100,000
Total	48,100	19.0	4,577	28.9
Sex				
Male	36,900	29.8	3,410	41.9
Female	11,200	8.6	1,167	15.1
Race/Ethnicity²				
White/Other ³	18,900	9.1	1,370	13.3
Black	23,400	69.9	2,087	90.5
Hispanic	11,200	26.4	1,120	34.6
Age at Infection				
13-29	20,100	27.9	1,608	39.8
30-39	16,700	41.5	1,257	54.8
40-49	13,100	29.3	1,204	45.9
50+	6,000	6.6	507	7.3
Transmission Category *				
MSM	29,300		2,407	
IDU	4,500		369	
Heterosexual ⁴ / Other ⁵	12,900		1,802	

- Florida's rates of new infections per 100,000 are highest among Males, Black/African Americans, and individuals aged 30-39 at the time of infection which are also the highest rates for these populations nationally
- Black/African American Floridians have close to 2 times a higher rate of new infections compared to the national rate

1. Comprised HIV Incidence data from 16 States and 2 Cities

2. CDC does not present Race/Ethnicity strata as FL; data represented here does not include all Race/Ethnicity in CDC data

3. Other is not a Race/Ethnicity used in CDC's data, therefore value represented is only for the White Race

* Imputed Value- Rates can not be calculated due to a lack of population level data

4. Heterosexual contact with a person known to have, or to be at high risk for, HIV infection

5. All Risk categories represent in CDC data are not shown here.

Conclusion

- ❑ Incidence data should be used to help organize prevention efforts
- ❑ Though HIV incidence numbers have remained fairly stable across years, they are still disproportionately high across demographic populations
- ❑ Populations for needed targeted interventions are Black/African Americans and MSM

Contact Information

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