AIDS in Injecting Drug Users

San Diego County

2011

County of San Diego

Health and Human Services Agency

Epidemiology & Immunization Services

COUNTY OF SAN DIEGO
HHSA
HEALTH AND HUMAN SERVICES AGENCY

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Summary

- Injection Drug Users (IDU) comprise 19.3% of cumulative AIDS cases diagnosed in the county and 16.6% of recent (2006-2010) cases.
- 53.4% of IDU AIDS cases are also Men who have Sex with Men (MSM) (MSM+IDU).
- 14.1% of IDU AIDS cases are female.
- The majority, 53.7%, of IDU AIDS cases are white. Black AIDS cases are more likely to be IDU than other race/ethnicities; black IDU cases are more likely to be female.
- IDU cases are statistically significantly older than non-IDU cases. However, this difference is not clinically significant. There are no differences in age between male and female IDU cases.
- A smaller percentage of IDU cases than non-IDU cases has simultaneous HIV and AIDS diagnoses, and less than a year between HIV and AIDS diagnoses.
- San Diego County IDU AIDS cases have smaller proportions of cases surviving more than 12, 24, and 36 months than national estimates from the Centers for Disease Control and Prevention (CDC).
- The majority of both IDU and non-IDU AIDS cases diagnosed in the County resided in the Central region at the time of diagnosis.
- The most frequent facility of diagnosis type in both IDU and non-IDU AIDS cases is the inpatient or outpatient hospital setting (37%).
- The percent of IDU-only and MSM+IDU cases has been stable over time.
- MSM+IDU AIDS cases are younger than male IDU and non-IDU cases.
- MSM+IDU AIDS cases have higher percentages of whites and Hispanics, but lower percentages of black, than male IDU cases.

The first AIDS case in an Injecting Drug User (IDU) in San Diego county was a Man who had Sex with Men (MSM) and was diagnosed in 1981. Since then, IDU and MSM who are also IDU (MSM+IDU) have comprised 2,754(19.0%) of the 14,528 cumulative AIDS cases diagnosed and reported in the county as of December 31, 2010 (see Table 1). This is a significantly smaller ($p<0.001$) percentage than the 30.0% estimated in cumulative cases by the Centers for Disease Control and Prevention (CDC) in 2009. The percentage of all IDU cases has decreased significantly ($p<0.001$) since the 1996-2000 time period.

Unless otherwise stated, IDU in this report refers to both IDU-only and MSM+IDU cases. Data analyzed for this report includes all AIDS cases diagnosed in the county and reported through December 31, 2010.

Gender

Almost 86% of cumulative IDU AIDS cases in San Diego county are male (see Table 2); 54.3% of IDU cases diagnosed in the county are also MSM. The percent of IDU cases that are female remained relatively stable over time ($p=0.584$); the percent of females in non-IDU cases increased significantly ($p<0.001$) over time. When all AIDS cases are considered, females are significantly ($p<0.001$) more likely to be IDU than males.

Race/Ethnicity

The majority (53.7%) of IDU cases are white (see Table 3), but among cumulative IDU cases, blacks are significantly more likely than other race/ethnicities to be IDU ($p<0.001$), and whites significantly less likely than other race/ethnicities to be IDU when compared to non-IDU ($p<0.001$) (see Figure 1). Among IDU cases, blacks are more likely to be female ($p<0.001$). Over the 5-year time periods since the 1986-1990 period (see Table 4), there has been a significant increase in the percent of Hispanic IDU cases ($p<0.001$) and a decrease in white IDU cases ($p<0.001$). The percent of IDU AIDS cases that are blacks has not changed signficantly.

Age at Diagnosis and in 2010

The mean age at diagnosis of cumulative IDU and non-IDU cases is 38.1 years (see Table 5). The mean age at diagnosis increased over time, and recent IDU cases are statisti-

Table 1:
IDU and Non-IDU AIDS Cases by Time Period of Diagnosis, San Diego County

	Time Period of Diagnosis							
	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	Cumulative	Total Cases
All IDU*	9.3%	13.9%	19.1%	24.2%	21.1%	16.6%	19.3%	2,754
IDU only	1.9%	5.0%	8.6%	11.9%	10.7%	7.8%	8.7%	1,259
MSM+IDU	7.4%	8.9%	10.5%	12.3%	10.4%	8.8%	10.6%	1,495
Non-IDU	90.7%	86.2%	80.9%	75.8%	78.9%	83.4%	81.0%	11,774
Total Cases	216	2,700	4,931	2,742	2,211	1,728	14,528	

*Includes MSM+IDU (those MSM who also inject drugs).

TABLE 2:
Male and Female IDU and Non-IDU AIDS Cases Over 5-Year Time Periods, San Diego County

Time Period of Diagnosis	IDU*		Non-IDU	
	Male	Female	Male	Female
1981-1985	90.0%	10.0%	99.0%	1.0%
1986-1990	88.5%	11.5%	96.0%	4.0%
1991-1995	86.2%	13.8%	94.8%	5.2%
1996-2000	82.7%	17.3%	92.9%	7.1%
2001-2005	86.3%	13.7%	89.9%	10.1%
2006-2010	87.8%	12.2%	89.9%	10.1%
Cumulative	2,365 (85.9%)	389 (14.1%)	11,003 (93.5%)	771 (6.5%)

*Includes IDU-only and MSM+IDU cases.

TABLE 3:
Cumulative IDU and Non-IDU Cumulative AIDS Cases by Race/Ethnicity, San Diego County

	Race/Ethnicity				
	White	Black	Hispanic	Other*	Total
IDU**	53.7%	20.5%	23.2%	2.5%	2,629
non-IDU	62.2%	10.8%	23.9%	3.0%	11,191
Total	8,378	1,750	3,287	405	13,820

*Includes Asian, Pacific Islander, and Native American.
**Includes MSM+IDU.
Note: percentages may not total 100 due to rounding.

FIGURE 1:
Cumulative IDU and Non-IDU Cases by Race/Ethnicity, San Diego County

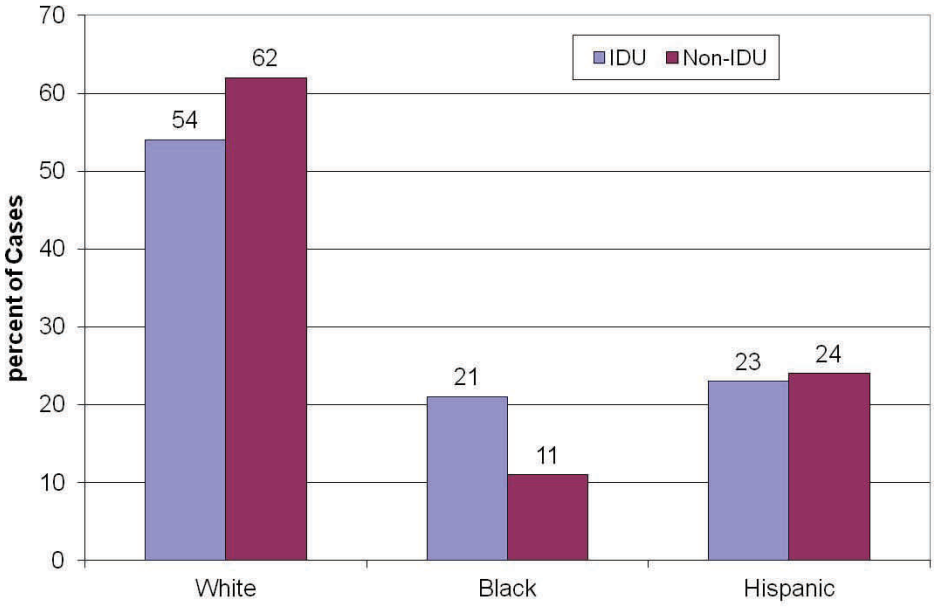


TABLE 4:
Race/Ethnicity in IDU AIDS Cases Over 5-Year Time Periods, San Diego County

Time Period of Diagnosis	Race/Ethnicity				Total
	White	Black	Hispanic	Other*	
1981-1985	80.0%	5.0%	15.0%	0.0%	20
1986-1990	61.9%	21.4%	15.0%	1.6%	373
1991-1995	54.9%	21.3%	21.7%	2.1%	944
1996-2000	49.2%	20.7%	26.7%	3.5%	663
2001-2005	51.0%	19.9%	26.6%	2.6%	467
2006-2010	46.7%	16.4%	32.8%	4.2%	287
Total	1,463	559	659	73	2,754

*Includes Asian, Pacific Islander, and Native American.
Percent may not total 100 due to rounding.

cally significantly older than non-IDU cases (p=0.019). This statistical difference is not clinically significant. There is no difference in age between males and females IDU cases (p=0.288). Female non-IDU cases are 1.2 years younger on average than non-IDU males cases (p<0.028), but this difference is not clinically significant.

The mean age (48.7 years) of IDU AIDS cases living in 2010 is statistically significantly greater than the mean age of non-IDUs, 47.9 years (p=0.006) (see Table 5). This difference is unlikely to be clinically significant.

White IDUs are significantly (p<0.001) younger than white non-IDUs (38.0 years vs 39.3 years). Black IDUs are significantly older than black non-IDUs (39.9 years vs. 35.9 years; p<0.001); Hispanic IDU (37.0 years) do not differ significantly from non-IDU (36.3 years) in age (p=0.053). When race/ethnicity is examined by age group (see Table 6), black IDUs have a significantly greater percent of IDU

TABLE 5:
Mean, Median, and Range of Ages at Diagnosis in Cumulative, Recent, and Prevalent IDU and Non-IDU AIDS Cases, San Diego County

	IDU*			Non-IDU		
	At diagnosis			At diagnosis		
	1981-2010	2006-2010	Age In 2010**	1981-2010	2006-2010	Age In 2010**
Mean age (years)	38.1	41.8	48.7	38.1	40.2	47.9
Median age (years)	37	42	49	37	40	48
Range (years)	17-71	18-68	20-81	<1-92	<1-85	4-89
Total cases	2,754	287	1,304	11,774	1,441	5,953

*Includes MSM+IDU.
**Among cases alive in 2010.

cases in the 40-49 year age group than white (p=0.11) or Hispanic (p=0.002) IDUs and a significantly (p=0.035) greater percent in those age 50 and older than Hispanic IDUs. White IDUs have a significantly greater percent of cases in the 20-29 age group than Hispanic (p=0.015) and black (p<0.001) IDUs. Hispanic IDUs have a significantly greater percentage of cases in those under 20 years of age than white (p<0.001) or black (p=0.002) IDUs. No significant differences were seen between white, black, or Hispanic IDUs in percent of cases in the 30-39 year age group.

Time from HIV to AIDS

Many IDU (36.2%) and non-IDU (43.5%) cumulative AIDS cases have simultaneous diagnoses with HIV and AIDS— that is, there is less than one month between their HIV diagnosis and AIDS diagnosis (see Figure 2). This is due to testing and identifying cases late in the infection, after disease has progressed. The time from HIV diagnosis to AIDS diagnosis is highly skewed. A significantly smaller proportion (p<0.001) of IDU (49.9%) than non-IDU (57.4%) had less than a year between HIV diagnosis and AIDS diagnosis ("late testers"). When race was controlled for, significant difference remain only among whites. When time period of diagnosis is controlled for, significant differences in percent of cases with less than a year between HIV and AIDS diagnosis are seen only from the 2001-2005 time period onward. The greatest difference between IDU and non-IDU cases (36.2% vs. 57.4%; p<0.001) in percent progressing from HIV to AIDS in less than a year is seen in the most recent time period (2006-2010).

The percent of IDU with simultaneous diagnoses of HIV and AIDS (less than one month between HIV and AIDS diagnoses) varies by time period; IDU has a smaller percentage with simultaneous diagnoses. Statistically significant differences are seen only from the 2001-2005 time period onward. The great-

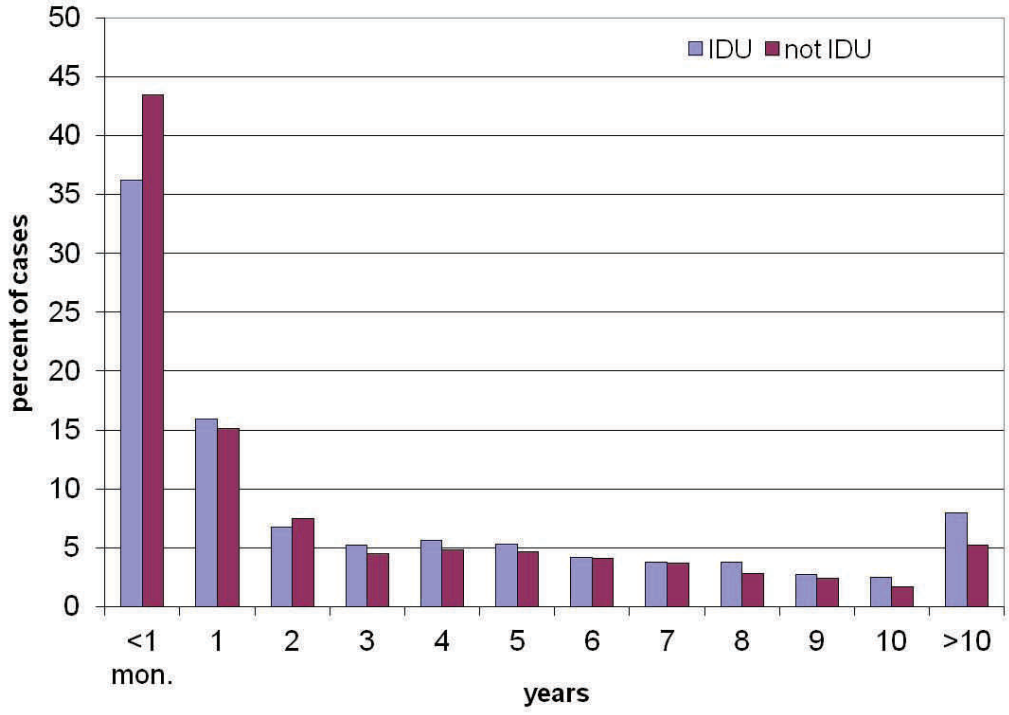
Table 6:
Age Group at Diagnosis in Cumulative IDU and Non-IDU AIDS Cases by Race/Ethnicity, San Diego County

Age Group (years)	Race/Ethnicity: White IDU	White Non-IDU	Black IDU	Black Non-IDU	Hispanic IDU	Hispanic Non-IDU	All Cases* IDU	All Cases* Non-IDU
<20	0.2%	0.5%	0.0%	2.8%	1.7%	2.8%	0.5%	1.4%
20-29	15.3%	12.9%	8.9%	21.1%	19.6%	21.7%	15.1%	16.3%
30-39	45.5%	43.0%	43.3%	45.7%	42.9%	43.4%	44.1%	43.4%
40-49	29.9%	29.9%	35.8%	21.9%	27.5%	22.2%	30.8%	26.9%
50+	9.1%	13.7%	12.0%	8.5%	8.3%	9.8%	9.5%	12.0%
Total	1,463	7,184	559	1,287	659	2,938	2,754	11,774

*Includes Asian,Pacific Islanders, and Native Americans.

Note: percentages may not total 100 due to rounding.

FIGURE 2:
Time Between HIV Diagnosis and AIDS Diagnosis Among Cumulative IDU and Non-IDU AIDS Cases, San Diego County



est difference (p=0.004) between IDU (24.4%) and non-IDU (33.1%) cases is seen in recent years. When race/ethnicity is controlled for, these differences are seen only in whites (p<0.001).

It is possible that IDU brings people to medical care earlier in the course of disease so that they are diagnosed with HIV earlier, extending the time from HIV to AIDS. Also, a number of drug treatment programs request HIV testing at the time of entry, and this may increase the likelihood of early diagnosis in IDU.

SURVIVAL

The proportion of male AIDS cases diagnosed in San Diego county 2001-2005 and surviving greater than 12, 24, and 36 months is compared to Centers for Disease Control and Prevention (CDC) estimates in Table 7. Only male cases are presented because the number of female IDU diagnosed in 2001-2005 is too small for appropriate calculations. San Diego county has significantly (p<0.001) lower proportions of MSM+IDU (p<0.001) and all IDU (p<0.020) surviving than the CDC estimates at greater than 12, 24, and 36 months. There are also no statistical differences between county cases who are IDU only and those who are MSM+IDU

COUNTRY OF ORIGIN

The majority of both IDU (85.8%) and non -IDU (80.3%) cases were born in the US (see Table 8). IDU cases were significantly less likely (p<0.001) to be born outside of the US

TABLE 7:
Proportion of IDU Male AIDS Cases Diagnosed 2001-2005 Surviving More than 12, 24, and 36 Months, San Diego County (SDC) and National (CDC) Comparison

	Survival (months)					
	>12		>24		>36	
	SDC	CDC	SDC	CDC	SDC	CDC
All IDU§	0.89*	0.92	0.85*	0.89	0.82*	0.87
IDU only	0.89	0.90	0.85	0.87	0.82	0.84
MSM+IDU	0.89**	0.96	0.84**	0.94	0.82**	0.92

§Includes IDU only and MSM+IDU.
*Significant at p<0.001. **Significant at p<0.020.

TABLE 8:
Geographic Origin of Cumulative IDU and non-IDU AIDS Cases, San Diego County

	IDU	Non-IDU
US	85.8%	80.3%
US Dependency	1.4%	0.4%
Mexico	9.8%	14.1%
Other*	2.9%	5.1%
Total	2,754	11,774

*Includes 13 cases whose origin is unknown.

than non-IDU cases. IDU make up only about 19% of AIDS cases in San Diego county, but comprise about 43% of the 90 cases born in a US dependency. Most IDU and non-IDU cases born outside of the US are from Mexico (77.0% and 73.6% respectively) or the Philippines (3.1% and 4.4% respectively). The IDU and non-IDU cases are similar in proportion to cases born in Asia, Africa, Europe, North and South America, and the Caribbean.

Residence at Diagnosis

The majority of all AIDS cases were living in the HHSA Central region at the time of their AIDS diagnosis (see Table 9). Over time there have been shifts in the proportion of IDU cases in the regions. The percent of IDU cases in the Central region has declined sig-

TABLE 9:
IDU and Non-IDU Cumulative AIDS Cases by HHSA Region of Residence at Diagnosis, San Diego County

	HHSA Region						
	Central	East	South	North Coastal	North Inland	North Central	Total Cases
IDU	58%	8%	12%	8%	5%	9%	2,629
Non-IDU	57%	7%	11%	7%	5%	13%	11,191
Total cases	8,262	1052	1,586	1095	670	1,863	14,528

nificantly ($p<0.001$) while it has increased significantly ($p<0.001$) in the South region (see Table 10). This is similar to changes in proportion over regions seen in all AIDS cases in the county. No significant changes in percent of IDU cases is seen in other regions over time.

Facility of Diagnosis

The largest percent of IDU and non-IDU AIDS cases were diagnosed in an inpatient or outpatient hospital facility. There were no statistical differences between IDU and non-IDU AIDS cases in type of facility of diagnosis (see Table 11).

MSM and IDU

Of the 2,754 IDU AIDS cases reported in San Diego county, more than half, 1,495 (54.3%), are also MSM (MSM+IDU) (see Table

Table 10:
IDU AIDS Cases by HHSA Region and 5-year Time Period, San Diego County

	HHSA Region						
Time Period	Central	East	South	North Coastal	North Inland	North Central	Total Cases
1981-1985	45%	10%	10%	15%	5%	15%	20
1986-1990	65%	7%	8%	5%	4%	11%	373
1991-1995	60%	8%	9%	9%	6%	8%	944
1996-2000	60%	7%	11%	8%	5%	10%	664
2001-2005	52%	12%	17%	9%	3%	7%	466
2006-2010	51%	7%	21%	10%	4%	8%	287
Cumulative	58%	8%	12%	8%	5%	9%	100%
Total cases	1,604	224	325	232	127	242	2,754

Note: Percents may not total 100 due to rounding.

Table 11:
Type of Facility of Diagnosis in Cumulative IDU and Non-IDU AIDS Cases, San Diego County

	IDU Cases	Non-IDU Cases	All Cases
Private doctor/HMO	18.1%	18.8%	18.7%
Medical Examiner	0.2%	0.2%	0.2%
Correctional facility	1.1%	0.9%	0.9%
Hospital, inpatient or outpatient	37.8%	36.2%	36.5%
Adult HIV clinic	11.5%	10.9%	11.4%
Other*	7.7%	10.2%	9.4%
Unknown	23.6%	22.8%	22.9%
Total cases**	2,754	11,774	14,528

*Includes Emergency Department, Pediatric HIV Clinic, TB Clinic.

**Cases for which facility type information is available.

TABLE 13:
Percent of Male IDU-only and MSM+IDU AIDS Cases over 5-Year Time Periods, San Diego County

	Percent of all Male Cases	
	IDU only	MSM+IDU
1981-1985	0.9%	7.5%
1986-1990	3.5%	9.3%
1991-1995	6.4%	11.3%
1996-2000	8.5%	13.6%
2001-2005	8.8%	11.7%
2006-2010	6.5%	9.8%
Total cases	870 (6.4%)	1495 (11.0%)

1). Of the male IDU cases, MSM+IDU comprise 62.4%. The percent of IDU-only (p=0.132) and MSM+IDU (p=0.255) cases has not changed over time since 1991-1995 (see Table 13).

When compared to male IDU-only AIDS cases, the MSM+IDU group has a significantly larger percentage of whites (62.1% vs. 40.1%; p<0.001). The percent of Hispanics (20.3% vs. 31.6%; p<0.001) and of blacks (14.7% vs. 26.4%; p<0.001) is smaller in MSM+IDU cases than male IDU-only cases (see Table 14).

Cumulative MSM+IDU cases (mean age 37.2 years) are younger (p<0.001) than male IDU-only cases (mean age 39.8 years). MSM+IDU AIDS cases are significantly more likely to be in the 20-29-year (18.4% vs. 11.3%, p<0.001) or 30-39 year (46.7% vs. 40.7%, p=0.005) age groups than male IDU-only cases. They are significantly less likely to be in the 40-49 year (p<0.001) and 50+ year (p=0.001) age groups (see Figure 3 and Table

FIGURE 3:
Age groups of Male IDU, MSM+IDU, and Non-IDU AIDS Cases, San Diego County

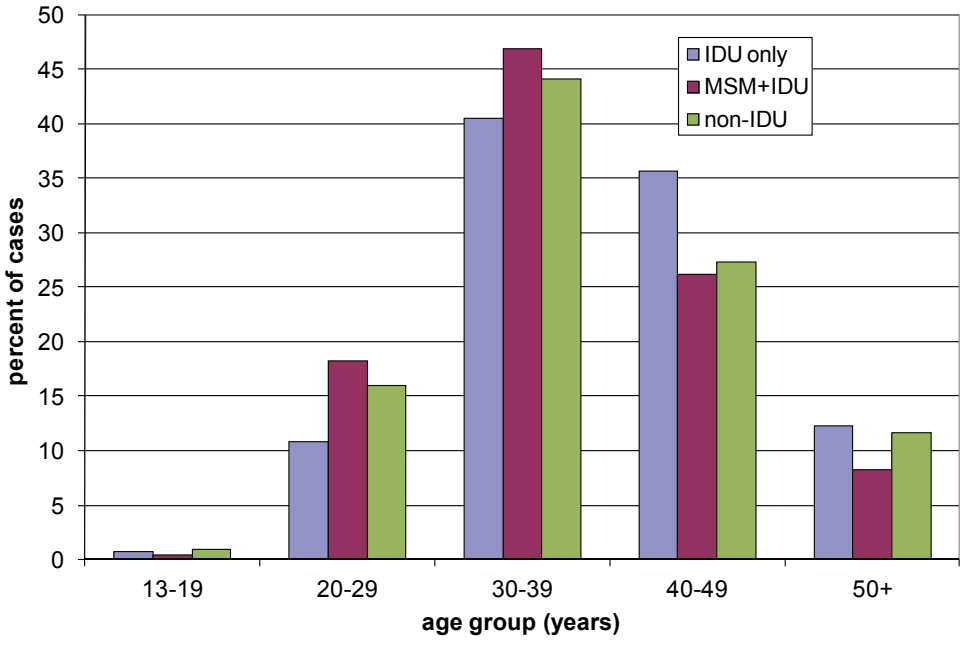


Table 14

Race/Ethnicity, Age Groups, Time Between Diagnoses, and Facility Type at Diagnosis for Cumulative Male Adolescent/Adult IDU-only and MSM+IDU, San Diego County

		Male IDU-only*	MSM+IDU
Race/ Ethnicity	White	40.1%	62.1%
	Black	26.4%	14.7%
	Hispanic	31.6%	20.3%
	Other**	1.8%	2.8%
Age (years)	mean	39.8	37.2
	<20	0.2%	0.2%
	20-29	11.3%	18.4%
	30-39	40.7%	46.7%
	40-49	35.5%	26.5%
	50+	12.3%	8.2%
Time from HIV to AIDS Diagnosis	<1 month	43.9%	31.7%
	<12 months	59.9%	44.3%
Facility Type	Hospital, inpatient or outpatient	39.4%	31.4%
	Private doctor/HMO	10.3%	14.5%
	Adult HIV Clinic	13.7%	16.7%
	Correctional Facility	7.1%	3.8%
	Medical Examiner	0.3%	0.3%
	Other#	15.0%	15.5%
	Unknown	14.2%	17.8%
Total Cases in Group		870	1495

*Male cases with only IDU as mode of transmission.

**Includes Asian, Pacific Islander, and Native American.

#Includes emergenncy room and unspecified types of clinics.

Note: Percentages may not total 100 due to rounding.

14).

There is a significantly ($p<0.001$) larger percent of male IDU-only (43.9%) than MSM+IDU cases (31.7%) with less than one month between the time from reported HIV diagnosis to AIDS diagnosis (see Table 14). When race/ethnicity is controlled for, these difference are maintained.

There are differences between MSM+IDU and male IDU-only in type of facility of diagnosis. Male IDU-only cases are significantly more likely to be diagnosed in the hospital setting ($p<0.001$) or a correctional facility ($p<0.001$) than MSM+IDU cases, but less likely to be diagnosed by a private medical provider or in an HMO setting ($p=0.003$) (see Table 14).

The MSM+IDU cases (mean age 37.2 years) are, statistically, if not clinically, significantly younger than MSM-only cases (mean age 38.1 years) ($p<0.001$). The MSM+IDU cases are more likely to be in the 20-29 years age group than MSM cases (18.4% vs. 16.4%;

Table 15

Race/Ethnicity, Age Groups, Time Between Diagnoses, and Facility Type at Diagnosis for Cumulative Adolescent/Adult MSM and MSM+IDU, San Diego County

		MSM	MSM+IDU
Race/ Ethnicity	White	63.9%	62.1%
	Black	9.6%	14.7%
	Hispanic	23.6%	20.3%
	Other*	2.9%	2.8%
Age (years)	mean	38.1	37.2
	<20	0.2%	0.2%
	20-29	16.4%	18.4%
	30-39	45.0%	46.7%
	40-49	27.5%	26.5%
	50+	11.0%	8.2%
Time from HIV to AIDS Diagnosis	<1 month	42.3%	31.6%
	<1 12 months	56.2%	44.3%
Facility Type	Hospital, inpatient or outpatient	26.0%	31.4%
	Private doctor/HMO	24.4%	14.5%
	Adult HIV Clinic	14.0%	16.7%
	Correctional Facility	0.5%	3.8%
	Medical Examiner	0.3%	0.3%
	Other*	12.8%	15.4%
	Unknown	22.1%	17.8%
Total Cases in Group		10540	1495

*Includes Asian, Pacific Islander, and Native American.

**Includes emergenncy room and unspecified types of clinics.

Note: Percentages may not total 100 due to rounding.

p=0.045); no other significant differences were seen in age groups (see Table 15).

The MSM+IDU cases have a significantly greater percentage of blacks (p<0.001), but a smaller proportion of Hispanics (p=0.005) than MSM-only cases. There is no significant difference between MSM+IDU and MSM-only in the proportion of (see Table 15).

Cases in MSM+IDU have a significantly greater percent diagnosed in the hospital setting (p<0.001), HIV clinic (p=0.005), and correctional facility (p<0.001) than MSM-only. MSM-only cases were significantly more likely to be diagnosed by a private medical provider or in an HMO system than MSM+IDU cases (p<0.001). No differences were seen in other diagnostic settings (see Table 15).

The MSM-only cases have a significantly greater proportion of cases with less than one month from HIV diagnosis to AIDS diagnosis than MSM+IDU (p<0.001) or with less than 12 months between diagnoses (p<0.001) (see Table 15). This is consistent with findings in IDU and non-IDU cases. This difference is seen when controlling for race. It is possible that

IDU brings people to medical care earlier in the course of disease so that they are diagnosed with HIV earlier, extending the time from HIV to AIDS, and are under care extending their survival.

Limitations

The data presented in this report are dependent on accurate reporting from healthcare providers, laboratories, and patients. Patients, for many reasons, may not provide accurate current or historical information to their healthcare providers which can then be reported. Healthcare providers may not report complete information because it is not available to them, they wish to protect their patients' privacy, or other for reasons. Each of these situations, and others, result in data that may not be complete or accurate and these inaccuracies may impact analysis.

The data reported for each AIDS case is entered into the enhanced HIV/AIDS Reporting System (eHARS) data base. The eHARS database is provided by the CDC to the California Department of Public Health (CDPH). The variables in eHARS are defined by the CDC. Some of these variables are limited in the information they can provide. For example, while country of origin is collected, the age at which the case arrived in the United States (US) is not collected. This makes interpretation of the importance of country of origin difficult because there may be differences between the case who arrives in the US at two years of age, is raised in the US to the age of 30 before being infected, and the case who is raised in Africa or Latin America and arrives in the US two years before being infected at age 30. Both would be identified as having a non-US origin, but with very different cultural experiences. There are also cases identified in the county who were infected in their country of origin and this information is not presented.

Caution should be exercised in the analysis of the most recent time period (2006-2010) because additional cases are likely to be reported over time; retrospective case finding will continue. Case reports are also updated as new information becomes available. When, for example, more information on risks is obtained, the database is updated and this may impact proportions and rates used in this and future analyses.

Some of the variables under study do not have sufficient numbers of occurrences to make statistical inferences. When small numbers are presented, caution should be exercised in the interpretation of data presented.

In 1993 the AIDS case definition was modified by the CDC to include those patients with evidence of HIV infection in whom the CD4 absolute count dropped below 200 and/or the percent of CD4 cells fell below 14%. This increased the number of cases substantially and allowed for the identification of cases earlier in their disease progression. This has increased both the number of surviving cases and likely increased the length of time from diagnosis to death. The change in case definition and the increase in cases identified earlier in the course of disease may make comparisons to earlier cases, diagnosed after the onset of an opportunistic infection or other indica-

tion of a profoundly failing immune system, difficult.

Whenever possible, case information is updated as to vital status. However, it is likely that some cases may have died, but the death has not yet been reported to the Epidemiology Program. Some of these cases may have left the area or state and died. Circumstances of death may also impact accuracy of vital status; cases with no indication of an HIV or AIDS diagnosis on the death certificate are less likely to have the death reported to the Epidemiology Program. This may result in inaccurate assumptions and survival calculations.

Updates are also made related to risk group as new information on cases becomes available. For this reason, a number of cases each year are reclassified from IDU to MSM+IDU. This may result in changes of proportions and significance in analyses.

The county has a higher proportion of Hispanics and a lower proportion of blacks than do many states, and the United States as a whole. These racial/ethnic demographic differences make comparisons of San Diego county to the nation as a whole, and to other states, difficult, and must be taken into account when discussing the impact of the AIDS epidemic on the county.

Comparisons are made in this report to CDC national estimates for rates and percentages of AIDS cases in terms of demographic and risk variables. It should be remembered that these are estimates based on data submitted under many different state and local surveillance systems, while the county data is based on individual cases reported. This can make these comparisons difficult to interpret.

All databases have limitations, but taking these into account can facilitate their useful-

Data sources:

County of San Diego, HIV/AIDS Epidemiology Unit database and Annual Report.
SANDAG population estimates.
HIV/AIDS Surveillance Report, 2009 (Vol. 21), Centers for Disease Control and Prevention.
Profiles of General Demographic Characteristics, 2000, US Dept of Commerce.

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