

AIDS IN INJECTING DRUG USERS COUNTY OF SAN DIEGO, 2009

County of San Diego

**Health and Human
Services Agency,
HIV/AIDS Epidemiology Unit**



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The first AIDS case in an Injecting Drug User (IDU) in San Diego County was diagnosed in 1981 in a Man who has Sex with Men (MSM). Since then, IDU and MSM who are also IDU (MSM+IDU) have comprised 2,629 (19.1%) of the 13,820 AIDS cases diagnosed in the County as of December 31, 2008. This is a significantly smaller ($p<0.001$) proportion than the 30.9% reported by the Centers for Disease Control and Prevention (CDC) in 2006 in cumulative cases. The proportion of IDU cases has increased significantly ($p<0.001$) through 2003, although in the most recent time period (2004-2008) the proportion has decreased somewhat. When IDU and MSM+IDU are separated, there is no increase seen in MSM+IDU over time ($p=0.425$), although there is a significant increase in those with IDU only ($p<0.001$) (see Table 1).

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 reported through December 31, 2008.

GENDER

More than 85% of cumulative IDU AIDS cases in San Diego County are male (see Table 2); more than half, 53.4%, of IDU cases diagnosed in the county are also MSM. The proportion of female IDU cases has remained relatively stable since the 1989-1993 time period ($p=0.196$); the proportion of females in non-IDU cases has increased significantly ($p<0.001$), but the proportions are lower over time than those seen in IDU. When all AIDS cases are considered, females are significantly ($p<0.001$) more likely to be IDU than males, that is.

RACE/ETHNICITY

The greatest proportion of IDU cases are white (see Table 3), but among cumulative IDU cases, blacks are significantly more likely to be IDU ($p<0.001$) and whites significantly less likely to be IDU ($p<0.001$) (see Figure 1). Among IDU cases, blacks and Asians/Pacific Islanders/Native Americans are more likely to be female ($P<0.001$). When IDU cases are

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

	Time Period of Diagnosis					Cumulative	Total Cases
	1981-1988	1898-1993	1994-1998	1999-2003	2004-2008		
All IDU*	14.0%	16.4%	22.1%	23.1%	18.3%	19.0%	2,629
IDU only	3.5%	7.7%	10.3%	12.2%	9.1%	8.9%	1,224
MSM+IDU	10.5%	8.7%	11.8%	10.9%	9.2%	10.2%	1,405
Non-IDU	86.0%	83.6%	77.9%	76.9%	81.7%	81.0%	11,191
Total Cases	1,442	4,507	3,735	2,249	1,887	13,820	

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

TABLE 2:
Percent of 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
1981-1988	92.1%	7.9%	96.8%	3.2%
1989-1993	86.9%	13.1%	95.5%	4.5%
1994-1998	83.1%	16.9%	93.5%	6.5%
1999-2003	84.0%	16.0%	90.9%	9.1%
2004-2008	88.1%	11.9%	89.3%	10.7%
Cumulative	2,253 (85.7%)	376 (14.3%)	10,467 (93.5%)	724 (6.5%)

*Includes IDU-only and MSM+IDU cases.

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

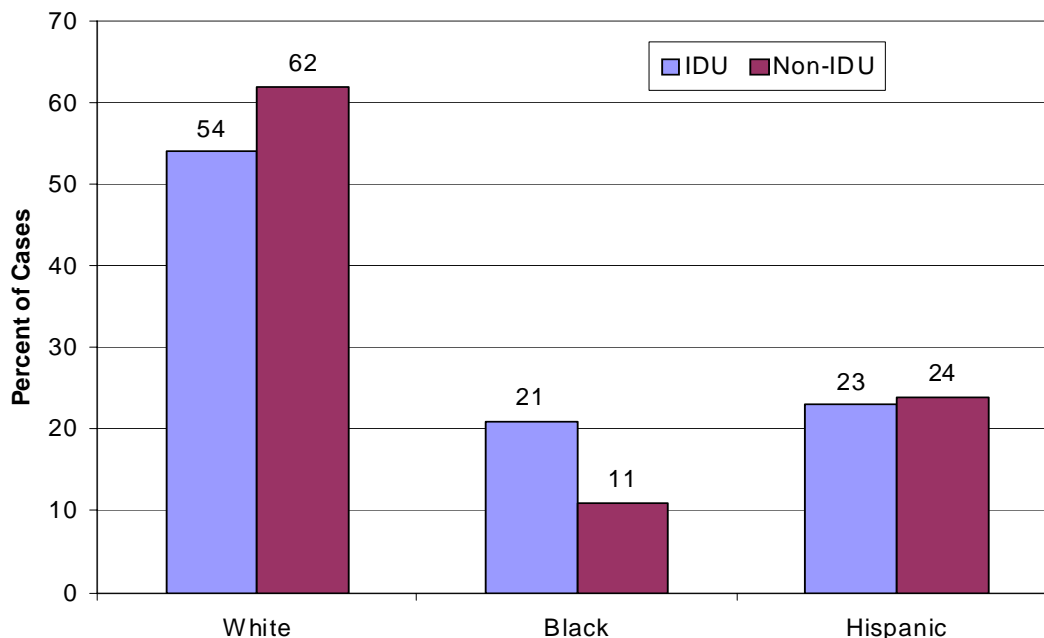
	Race/Ethnicity				Total
	White	Black	Hispanic	Other*	
IDU**	53.7%	20.5%	23.2%	2.5%	2,629
non-IDU	62.2%	10.8%	23.9%	3.0%	11,191
Total	8,378	1,750	3,287	405	13,820

*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



examined over 5-year time periods from the 1989-1993 period (see Table 4), there has been a significant increase in the proportion of Hispanics ($p<0.001$) and a decrease in whites ($p<0.001$), while that of blacks has remained stable.

AGE AT DIAGNOSIS AND 2008

The mean age at diagnosis of cumulative IDU cases is 38.1 years, similar to that of non-IDU cases (38.0 years) (see Table 5). The mean age at diagnosis has increased over time, and recent IDU cases are statistically significantly

older than non-IDU cases ($p<0.001$). Although there is a statistical difference, this difference is not clinically significant. Among IDU cases there is no difference in age between males and females ($p=0.246$), but female cases are 1.3 years younger on average than males in non-IDU cases ($p<0.018$).

When mean age at diagnosis is examined by race/ethnicity, white IDUs are significantly ($p<0.001$) younger than white non-IDUs (37.9 years vs 39.2 years) while black and Hispanic IDUs are significantly older than black (39.6 years vs. 35.9 years; $p<0.001$) and Hispanic

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*	
1981-1988	71.3%	16.3%	10.4%	2.0%	202
1989-1993	54.4%	23.5%	21.1%	0.9%	739
1994-1998	53.3%	20.0%	23.4%	3.3%	824
1999-2003	48.4%	22.2%	27.0%	2.5%	519
2004-2008	51.3%	15.4%	28.7%	4.6%	345
Total	1,413	540	609	67	2,629

*Includes Asian, Pacific Islander, and Native American.

Percent may not total 100 due to rounding.

TABLE 5:
Mean, Median, and Range of Ages at Diagnosis in Cumulative, Recent, and 2008 IDU and Non-IDU AIDS Cases, San Diego County

	IDU*			Non-IDU		
	At diagnosis			At diagnosis		
	1981-2008	2004-2008	In 2008	1981-2008	2004-2008	In 2008
Mean age (years)	38.1	42.0	47.3	38.0	39.7	46.6
Median age (years)	37	42	47	37	39	46
Range (years)	17-71	20-67	23-79	<1-92	<1-83	3-87
Total cases	2,629	345	1,214	11,191	1,542	5,462

*Includes MSM+ IDU.

(37.0 vs. 36.1 years respectively; $p=0.038$) non-IDUs. When race/ethnicity is examined by age group (see Table 6), black IDUs have a slightly greater proportion of IDU cases in the 40-49 year age group than whites or Hispanics.

Of all AIDS cases living in 2008, the mean age of IDUs, 47.3 years, is statistically significantly greater than the mean age of non-IDUs, 46.6 years ($p=0.010$) (see Table 5). Again, this statistical difference is unlikely to be clinically significant.

TIME FROM HIV TO AIDS

The majority of both IDU (51.5%) and non-IDU (58.5%) cumulative AIDS cases progress from HIV diagnosis to AIDS diagnosis in less than a year (see Figure 2). Because the time from HIV diagnosis to AIDS diagnosis is highly skewed (the mean and median time is less than 1 year), it is more useful to think of it as dichotomous—those with time less than one year or one year or greater. A significantly smaller proportion ($p<0.001$) of IDU

(51.5%) than non-IDU (58.5%) had less than a year between HIV diagnosis and AIDS diagnosis. This difference is maintained when race was controlled for, although this difference appears to be greater among whites. When time of diagnosis, before 1993 or 1993 and after, is taken into account the difference is not maintained. In the recent time period (2004-2008), IDU cases had an even smaller proportion progressing from HIV diagnosis to AIDS diagnosis over this short time frame than non-IDU cases (39.1% vs 53.4%; $p<0.001$). The proportion of IDU with simultaneous diagnoses of HIV and AIDS (less than one month between HIV and AIDS diagnoses) is smaller than that in the non-IDU in both cumulative cases (36.2% vs 43.1%; $p<0.001$) and in recent cases (22.9% vs 30.9%; $p=0.003$). These differences remain significant ($p=0.009$) when race/ethnicity is taken into account.

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

TABLE 6:

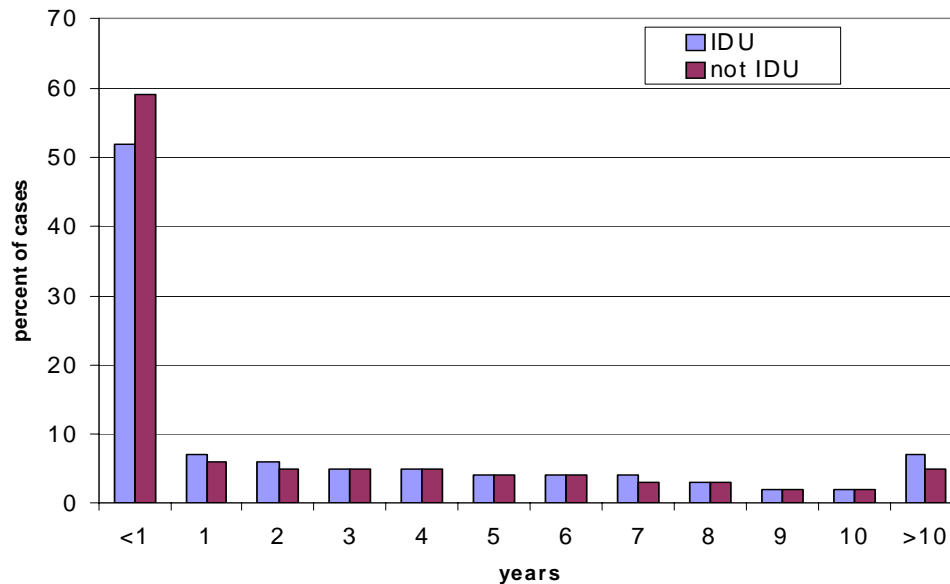
Age Group at Diagnosis in Cumulative IDU and Non-IDU AIDS Cases by Race/Ethnicity, San Diego County

Age Group (years)	Race/Ethnicity							
	White		Black		Hispanic		All Cases*	
	IDU	Non-IDU	IDU	Non-IDU	IDU	Non-IDU	IDU	Non-IDU
<20	0.0%	0.4%	0.0%	2.2%	0.3%	2.4%	<0.1%	1.1%
20-29	15.8%	12.9%	8.5%	20.8%	20.7%	22.9%	15.4%	16.4%
30-39	45.8%	43.8%	44.4%	43.7%	43.2%	43.4%	44.7%	44.1%
40-49	29.5%	29.4%	35.6%	22.0%	27.6%	21.7%	30.6%	26.6%
50+	8.9%	13.5%	11.5%	8.3%	8.2%	9.6%	9.3%	11.8%
Total	1,413	6,965	540	1,210	609	2,678	2,629	11,191

*Includes Asian, Pacific Islanders, and Native Americans.

FIGURE 3:

Years Between HIV Diagnosis and AIDS Diagnosis Among Cumulative IDU and Non-IDU AIDS Cases, San Diego County



number of drug treatment programs request HIV testing at the time of entry, and this may increase the likelihood of early diagnosis in IDU.

TIME FROM AIDS TO DEATH

Like time from HIV to AIDS diagnosis, the distribution of time from AIDS to death amongst AIDS cases who have died is highly skewed. Of cumulative AIDS cases who have died, a small, but statistically significant difference is seen in the proportion dying in less than a year after AIDS diagnosis between IDU and non-IDU cases (32.9% vs 36.7%; $p=0.008$). This difference remains when race/ethnicity is taken into account.

SURVIVAL

The proportion of AIDS cases diagnosed in San Diego County and surviving greater than 12, 24, and 36 months, of those diagnosed

in 2002, can be compared to results from the Centers for Disease Control and Prevention (CDC) (see Table 7). Only male cases are presented because the number of female IDU diagnosed in 2002 is too small for appropriate calculations. Although the CDC and County values appear to differ, they are not statistically significant differences. This is most likely due to the relatively small numbers of cases in the County. 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 (82.6%) and non-IDU (86.2%) cases were born in the US (see Table 8). Injecting Drug Use cases were significantly less likely ($p<0.001$) to be born outside of the US than non-IDU cases. Although IDU make up only about 19% of AIDS cases in San Diego County, they comprise

TABLE 7:

Proportion of IDU Male AIDS Cases Diagnosed in 2002 Surviving More than 12, 24, and 36 Months, San Diego County and National (CDC) Comparison

	Survival (months)					
	>12		>24		>36	
	CoSD	CDC	CoSD	CDC	CoSD	CDC
All IDU*	0.93	0.90	0.88	0.85	0.85	0.82
IDU only	0.93	0.89	0.85	0.84	0.83	0.81
MSM+IDU	0.93	0.93	0.93	0.89	0.90	0.86

*Includes IDU only and MSM+IDU.

TABLE 8:

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

	IDU	Non-IDU
US	85.7%	81.0%
US Dependency	1.4%	0.4%
Other*	12.9%	18.6%
Total	2,629	11,191

*Includes 13 cases whose origin is unknown.

about 43% of the eighty-eight cases born in a US dependency. Of IDU and non-IDU cases born outside of the US, most are from Mexico (78.1% and 74.4% respectively) or the Philippines (3.3% and 4.7% 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, both IDU and non-IDU, were living in the HHS 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 proportion of IDU cases in the Central region has declined significantly ($p=0.001$) while

TABLE 9:

IDU and Non-IDU Cumulative AIDS Cases by HHS Region of Residence at Diagnosis, San Diego County

	HHS Region						Total Cases
	Central	East	South	North Coastal	North Inland	North Central	
IDU	58%	8%	12%	8%	5%	9%	2,629
Non-IDU	57%	7%	10%	7%	5%	14%	11,191
Total cases	7,908	993	1,462	988	637	1,832	13,820

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. Other regions have not had changes in proportion of IDU.

FACILITY OF DIAGNOSIS

The majority of both IDU and non-IDU AIDS cases were diagnosed in either an inpatient or outpatient hospital facility. IDU AIDS cases were significantly ($p < 0.001$) more likely

to be diagnosed in this setting or in a correctional facility ($p < 0.001$) than non-IDU cases, while non-IDU cases were significantly more likely to be diagnosed by a private physician or in an HMO (see Table 11). IDU cases were no more likely than non-IDU cases to be diagnosed by the medical examiner at the time of death.

REPORTED AIDS INDICATOR CONDITIONS

Non-IDU and IDU AIDS cases differ

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

HHS region	Time Period				Cumulative*
	1989-1993	1994-1998	1999-2003	2004-2008	
Central	59.3%	59.5%	58.6%	47.0%	58.3%
East	8.1%	7.3%	8.3%	11.6%	8.3%
South	9.6%	9.8%	12.9%	21.4%	11.5%
North Coastal	8.0%	8.6%	6.6%	9.3%	7.9%
North Inland	5.1%	5.6%	4.2%	3.5%	4.6%
North Central	9.9%	9.2%	9.4%	7.2%	9.4%
Total cases	739	824	519	345	2,629

*1981-2008

TABLE 11:
Type of Facility of Diagnosis in Cumulative IDU and Non-IDU AIDS Cases Aged 13 Years and Older, San Diego County

	IDU Cases	Non-IDU Cases	All Cases
Private doctor/HMO	13.4%	25.8%	23.9%
Medical Examiner	0.3%	0.2%	0.3%
Correctional facility	4.5%	0.6%	1.2%
Hospital, inpatient or outpatient	55.5%	45.8%	47.0%
Adult HIV clinic	17.5%	16.0%	15.5%
Other*	8.8%	11.6%	12.1%
Total cases**	2,411	9,954	12,365

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

**Cases for which we have facility type information.

somewhat in their reported AIDS indicator diseases (see Table 12). The majority of these diseases are generally only reported by healthcare providers at the time of diagnosis, but some cases are updated when additional indicator diseases occur. It is important to re-

member, when looking at the data presented, that this information pertains to reported conditions only, not to all occurrences of the indicator diseases. The most common AIDS-defining indicator for both IDU (79.0%) and non-IDU (72.2%) cases is a CD4+ count of less

TABLE 12:
Reported AIDS Indicator Diseases (Occurring at any Time) in IDU and Non-IDU AIDS Cases, San Diego County

Reported Indicator Disease*	IDU Cases		Non-IDU Cases	
	Frequency	Percent**	Frequency	Percent**
CD4 count<200/ μ L or <14%	2,076	79.0%	8,076	72.2%
<i>Pneumocystis carinii</i> pneumonia	643	24.5%	2,992	26.7%
Wasting syndrome	443	16.9%	1,726	15.4%
Candidiasis, esophageal	241	9.2%	812	7.3%
<i>Mycobacterium avium</i> complex or <i>M. kansasii</i>	198	7.5%	902	8.1%
HIV encephalopathy	196	7.5%	647	5.8%
Kaposi's sarcoma	190	7.2%	1,422	12.7%
<i>M. tuberculosis</i> , pulmonary	139	5.3%	396	3.5%
Cytomegalovirus	104	4.0%	652	5.8%
Cytomegalovirus retinitis	86	3.3%	536	4.8%
<i>M. tuberculosis</i> , disseminated or extrapulmonary	86	3.3%	237	2.1%
Herpes simplex, invasive or chronic	74	2.8%	236	2.1%
Immunoblastic lymphoma	72	2.7%	393	3.5%
Cryptosporidiosis	64	2.4%	424	3.8%
Toxoplasmosis of the brain	52	2.0%	254	2.3%
Pneumonia, recurrent in 12-month period	51	1.9%	76	0.7%
Progressive multifocal leukoencephalopathy	37	1.4%	152	1.4%
Lymphoma, primary of the brain	25	1.0%	162	1.4%
Candidiasis, pulmonary	19	0.7%	66	0.6%
<i>Mycobacterium</i> , of other species	14	0.5%	54	0.5%
Coccidiomycosis	13	0.5%	49	0.4%
Histoplasmosis	8	0.3%	47	0.4%
Isosporiasis	5	0.2%	22	0.2%
Salmonella septicemia	5	0.2%	21	0.2%
Burkitt's lymphoma	5	0.2%	57	0.5%
Carcinoma, invasive cervical	2	0.1%	0	0.0%
Lymphoid interstitial pneumonia#	0	0.0%	22	0.2%
Recurrent bacterial infections#	0	0.0%	8	0.1%
Total Cases	2,629		11,191	

*May not be a complete list of all indicator diseases experienced by every case.

**Total percent will not total 100 because each case may experience more than one indicator disease.

#Pediatric AIDS definition only.

than 200 cells/ μ l or less than 14%; these differences are statistically significant ($p < 0.001$). The IDU cases are significantly more likely to have chronic mucocutaneous herpes ($p = 0.028$) and MSM+IDU cases are more likely to have herpes than IDU only cases ($p = 0.003$). The IDU cases are also more likely to have HIV dementia ($p = 0.001$), pulmonary tuberculosis ($p < 0.001$), disseminated tuberculosis ($p < 0.001$), recurrent pneumonias ($p < 0.001$), or candidiasis of the esophagus ($p = 0.001$) than non-IDU cases. They are less likely, however, to have cryptosporidiosis ($p < 0.001$), CMV disease ($p < 0.001$), CMV retinitis ($p = 0.001$), Kaposi's sarcoma ($p < 0.001$), *Pneumocystis pneumonia* ($p = 0.017$), or Burkitt's lymphoma ($p = 0.028$).

MSM AND IDU

Of the 2,629 IDU AIDS cases reported in San Diego County, more than half, 1,405 (53.4%) are also MSM (MSM+IDU) (see Table 1). Of the male IDU cases, MSM+IDU comprise 62.4%. Although the proportion of male IDU cases has increased significantly over time ($p < 0.001$), the proportion of MSM+IDU

cases has remained stable ($p = 0.072$) (see Table 13).

The MSM+IDU group has a significantly larger proportion of whites ($p < 0.001$) and smaller proportions of blacks ($p < 0.001$) and Hispanics ($p < 0.001$) than male IDU-only cases. The MSM+IDU cases (mean age 37.0 years) are younger than male IDU-only cases (mean age 39.7 years) and are significantly ($p < 0.001$) more likely to be in the 20-29-year (18.5% vs. 11.6%) or 30-39 year (47.8% vs. 40.1%) age groups than male IDU-only cases (see Figure 4).

The MSM+IDU cases have a significantly larger proportion of cases diagnosed by a private medical doctor or in an HMO setting than male IDU-only cases (15.3% vs. 11.1%; $p = 0.006$); male IDU-only cases have a significantly larger proportion of cases diagnosed in a hospital setting (58.8% vs. 52.4%; $p = 0.004$) or correctional facility (7.3% vs. 3.8%; $p < 0.001$) than MSM+IDU cases. These differences remain when controlling for race.

The male IDU-only cases have a shorter period of time between reported HIV diagnosis and AIDS diagnosis than MSM+IDU.

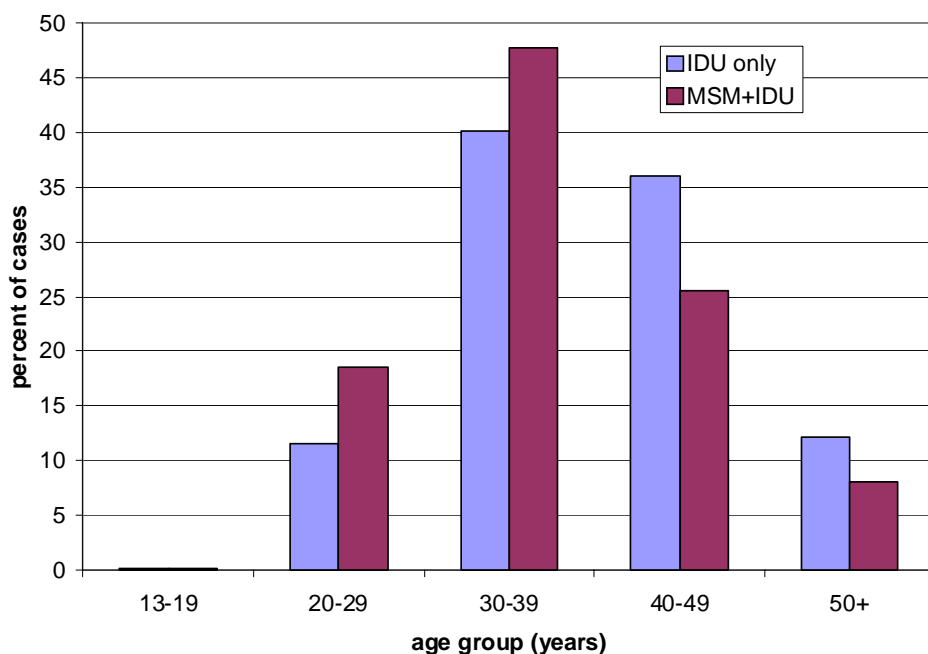
TABLE 13:

Proportion of Male IDU-only and MSM+IDU AIDS Cases over 5-Year Time Periods, San Diego County

	IDU only	MSM+IDU
1981-1988	2.5%	11.0%
1989-1993	5.9%	9.3%
1994-1998	7.2%	12.9%
1999-2003	9.5%	12.2%
2004-2008	7.7%	10.4%
Total cases	848	1,405

FIGURE 4:

Age groups of Male IDU and MSM+IDU AIDS Cases, San Diego County



There is a significantly ($p < 0.001$) larger proportion of male IDU-only (59.8%) than MSM+IDU cases (46.3%) with less than one year between the time from reported HIV diagnosis to AIDS diagnosis. This difference remains significant when race/ethnicity is taken into account.

The MSM+IDU cases (mean age 36.5 years) are, on average, statistically, if not clinically, significantly younger than MSM-only cases (mean age 37.9 years) ($p < 0.001$). This is in contrast to IDU overall who are, on average, older than MSM.

The MSM+IDU cases have a significantly greater proportion of blacks (14.4% vs 9.5%; $p < 0.001$), but a smaller proportion of Hispanics (19.4% vs 22.4%; $p = 0.011$) than MSM-only cases. There is no significant difference between MSM and MSM+IDU in the proportion

of whites (65.2% and 63.4% respectively) or Asians/Pacific Islanders (both 2.8%).

Cases in MSM-only group have a significantly greater proportion diagnosed by a private medical doctor or in an HMO setting than MSM+IDU (26.9% vs 15.3%; $p < 0.001$), and a significantly smaller proportion diagnosed in a correctional facility (0.6% vs 3.8%; $p < 0.001$) or in a hospital setting (44.2% vs 52.5%; $p < 0.001$). These differences remain when controlling for race. The MSM+IDU cases also have significantly greater proportion of cases of US origin than MSM-only cases (88.5% vs 84.5%; $p < 0.001$), even when controlling for race.

The MSM-only cases have a significantly greater proportion of cases with less than one year from HIV diagnosis to AIDS diagnosis than MSM+IDU (56.2% vs 46.3%; $p < 0.001$).

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 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 HIV/AIDS Reporting System (HARS) data base. The HARS database is provided by the CDC through the California Department of Public Health (CDPH). The variables in HARS are defined by the CDC and CDPH. 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 a profound difference 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 (2004-2008) 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 indication 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 Community Epidemiology Branch. 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 and HIV or AIDS diagnosis on the death certificate are less likely to have the death reported to the Community Epidemiology Branch. This may result in inaccurate assumptions and survival calculations.

Updates are also made as 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 the County of San Diego 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 of San Diego.

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 usefulness and contribution to community planning and prevention.

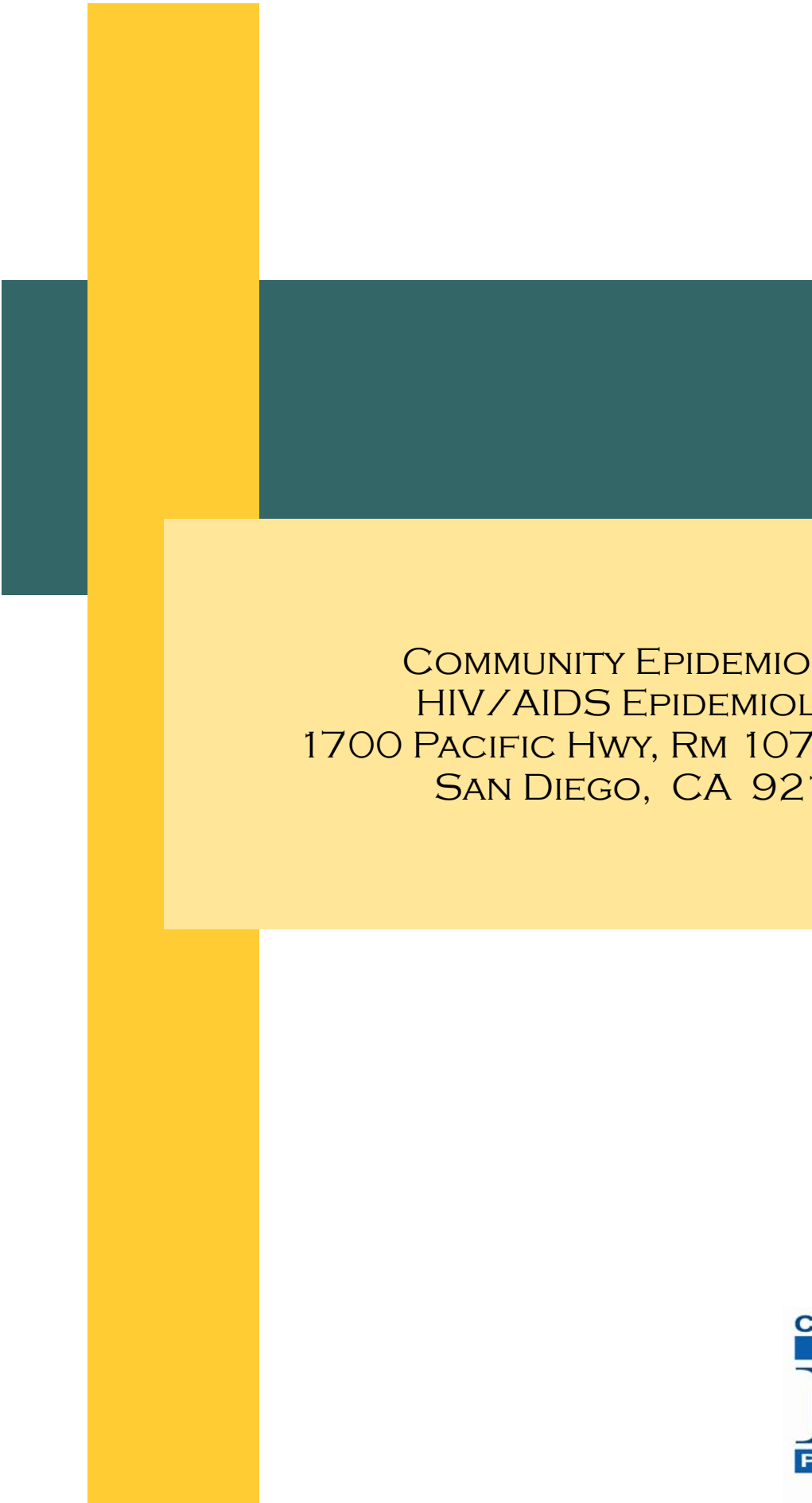
DATA SOURCES:

County of San Diego, HIV/ AIDS Epidemiology Unit database and Annual Report.

SANDAG population estimates.

HIV/AIDS Surveillance Report, 2006 (Vol. 18), Centers for Disease Control and Prevention.

Profiles of General Demographic Characteristics, 2000, US Dept of Commerce.



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