

## MACOMB COUNTY

### STATE PREVENTION FRAMEWORK STATE INCENTIVE GRANT (SPF SIG) DATA PROFILE



### ALCOHOL RELATED TRAFFIC CRASHES, INJURIES, AND FATALITIES UNDERAGE DRINKING OTHER DRUGS

August 2007  
(Revised 9-4-07)

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## SUMMARY

The Phase I State Prevention Framework State Incentive Grant process marks the completion of a regional needs assessment of the state level priority substance use and abuse indicators, Alcohol Related Traffic Crash Deaths and Underage Drinking, by the Macomb County Community Epidemiological Workgroup (CEW). Upon extensive review of the data related to these priority indicators, the CEW has identified high risk areas or “hot spots” within Macomb County to begin implementing preventive strategies that would reduce the county and consequently the state level burden of alcohol related traffic crashes and underage drinking.

The data identifies Macomb County as a state level hot spot for the priority problems, alcohol related traffic crashes, injuries and fatalities. Trend data shows that Macomb has been consistently ranked among the top 3 counties for alcohol related crashes. An extensive review of key indicators including injuries, fatalities, and DUI (Driving Under the Influence) arrests show approximately 60% of the crashes occurring within five cities; Warren, Clinton Township, Sterling Heights, St. Clair Shores and Roseville, all situated on the southeastern regions of the county. The CEW has identified these five cities plus Fraser, located within the same region, as the SPFSIG target areas to begin implementing prevention strategies. Data also show that zip codes with the highest risk population (18 – 24 year old) for alcohol related traffic crashes reside within these cities. Liquor law and DUI arrests among adult and youth also occurs at a disproportionate rate within in these target areas.

The information presented in this report is based on available data from national, state, and local level surveillance systems, reports, and surveys that helped provide a multidimensional assessment of the State level Priority Problems. The first section details problem statements including numbers and rates of indicators related alcohol traffic crashes, injuries, deaths, and DUI arrests. The second section highlights available data related to underage drinking, underage drinking and driving behaviors, and arrests as a result of underage drinking. The third section presents data on other alcohol related consequences, tobacco consumption and consequences and other drugs consequence. Following assessments of various substance abuse data indicators, there were gaps identified that if addressed, would improve needs assessment of substance use and abuse problems. These gaps include;

- Ongoing collection of county, city, and school district level consumption data for youth alcohol, tobacco, and other drugs consumption patterns and risk and protective factor indicators
- Inadequate trend data on alcohol, tobacco and other drug consumption patterns to enable accurate trend analysis
- Need for available data systems to track prescription drug use and abuse including Schedule II drug classification and over the counter drugs at the county and city level
- Uniform county level data system for tracking hospital discharges by various causes including substance use and abuse
- Lack of available data on poisonings due to intentional poisoning and drug and alcohol misuse

## Identified Data Gaps (Continued)

- Need for a system that would link and share data from publicly and privately funded treatment facilities
- More complete reporting of law enforcement data which displays all offenses for a single arrest
- More information needed for law enforcement data including time of arrests
- Lack of data on parents ticketed and prosecuted for alcohol and drugs laws
- Need for simple data system counting the number of minor in possession (MIP) tickets by city, zip codes, and school districts
- Ability to assess whether DUI and Liquor Law arrests data correlate with law enforcement efforts or magnitude of offenses
- Lack of County and City level data for alcohol related chronic diseases
- Availability of DHS data which link persons in treatment facilities and children in social services
- Linkage between Social Indicator data and Substance Abuse including school failure and success
- Data on more tobacco consequences including asthma and emphysema
- Limited and the lack for uniform data collection of demographic data for ethnicity by geographic location
- Drinking among women of child bearing age and fetal alcohol syndrome
- Alcohol and drug use and their effects on infectious diseases; hepatitis B and C, HIV/AIDS
- Alcohol/drug use and unemployment
- Alcohol/drug use and homicide and other violent crimes; availability of data to communities to enable needs assessment
- Alcohol/drug use and suicide and co-morbid mental disorders

|

## **DATA SOURCES**

### ***Alcohol, Tobacco and Drug Related Consequences***

#### Alcohol Related Traffic Crashes, Injuries and Fatalities:

Michigan Traffic Crash Facts 2005, Office of Highway Safety  
Southeastern Michigan Council of Government (SEMCOG), 2005  
Michigan Drunk Driving Audit, Michigan State Police, 2005

#### Alcohol and Drug Related Arrests:

Michigan Drunk Driving Audit, Michigan State Police, 2005  
Michigan Uniform Crime Report, Michigan State Police, 2005

#### Active Liquor Licenses:

Michigan Liquor Control Commission, Michigan Department of Labor and Economic Growth, 2007

#### Alcohol and Drug Treatment Admissions:

Office of Drug Control Policy, Treatment Episode Data Set 2004 - 2006. Treatment admissions rate was calculated by the Macomb CEW epidemiologist

#### Alcohol Related Disease Deaths:

Centers for Disease Control, CDC Wonder, 2000 – 2004

#### Lung Cancer Case Diagnosis and Deaths:

Michigan Residence Incidence Cancer File, Michigan Department of Community Health, Bureau of Epidemiology, 1985 - 2004

#### Drug Misuse Deaths and Drug Related Suicides:

Drug Abuse Warning Network, 2003

#### Suicide Deaths by All Causes:

Center for Disease, CDC Wonder, 2000 – 2004

### ***Alcohol, Tobacco and Drug Consumption***

#### Adult Alcohol, Tobacco and Other Consumption Data:

Behavioral Risk Factor Surveillance Survey (BRFSS), Michigan Department of Community Health, Bureau of Epidemiology, 1999 – 2005  
National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (SAMSA), 1999 - 2002

#### Youth Alcohol, Tobacco and Other Drug Consumption Data:

Macomb County Alcohol and Drug School Survey, Macomb County Intermediate Schools District (MISD), 2003  
National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (SAMSA), 1999 - 2002

#### ***Other Sources***

The US Census Bureau, 2000 Census Data

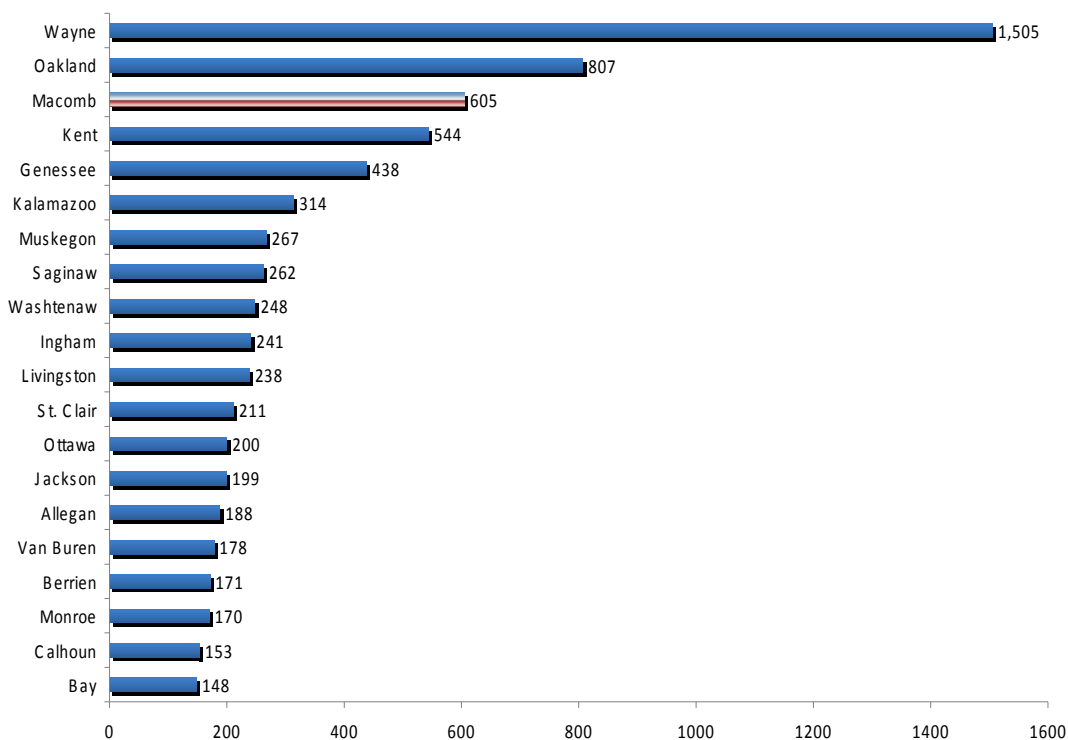
## PROBLEM STATEMENTS

### ***SECTION I - ALCOHOL RELATED TRAFFIC CRASHES, FATALITIES AND INJURIES***

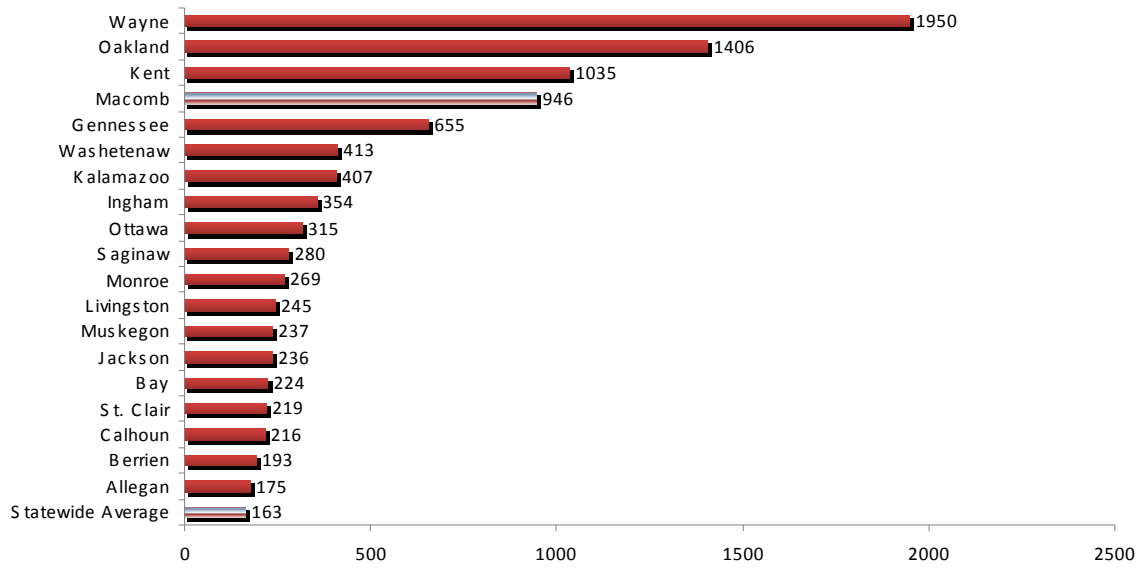
#### ***Alcohol Related Crashes***

According to Michigan Traffic Crash Facts, the number of alcohol related traffic crashes occurring in Macomb County have been on a slow decline over the past ten years. However, the number of alcohol related traffic crashes, injuries and fatalities in the county continues to contribute significantly to the state level impact of this problem. Data reverting from 1996 shows that Macomb County has been consistently ranked among the top fourth counties with the highest number of alcohol related traffics deaths and severe injuries (**Figure 1**). **Figure 2** shows that in 2005, there were 945 alcohol related traffic crashes occurring at a rate of 11.41 crashes per 10,000 persons; a total that represented nearly eight percent (8%) of the total number of alcohol related traffic crashes that occurred statewide.

**Figure 1: Top 20 County Ranks - Number of Persons Killed or Seriouly Injured  
in Alcohol Related Traffic Crashes  
2001 -2005**

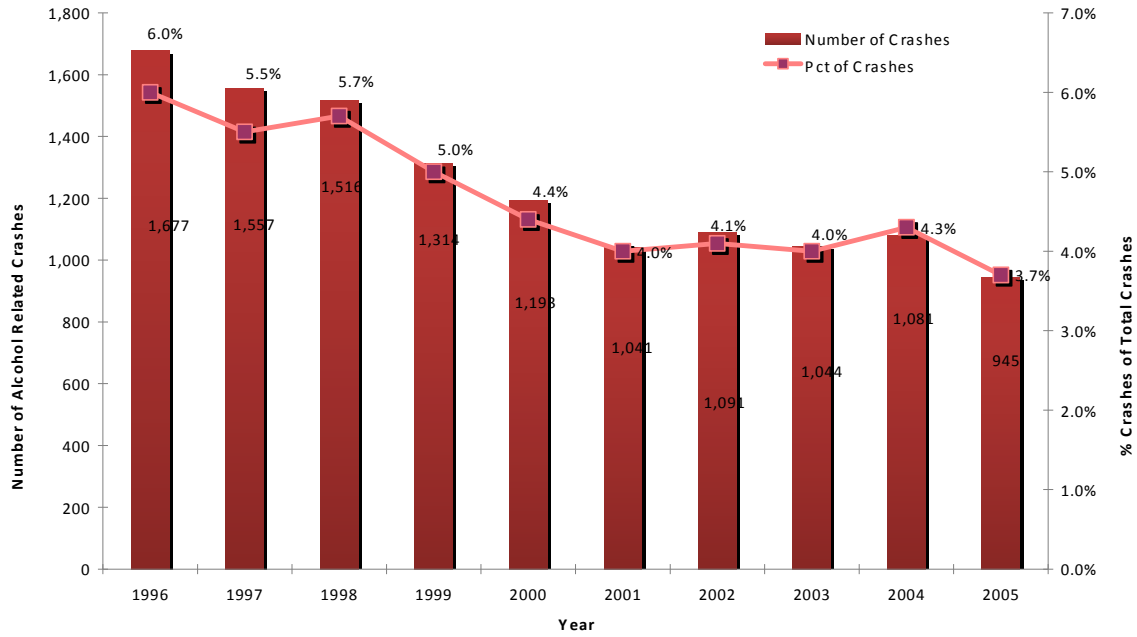


**Figure 2. Top 20 County Ranks: Alcohol Related Traffic Crashes 2005**



Data Source: Michigan Drunk Driving Audit, 2005

**Figure 3: Macomb County: Number & Percent of Alcohol Related Motor Vehicle Crashes by Year 1996 - 2005**

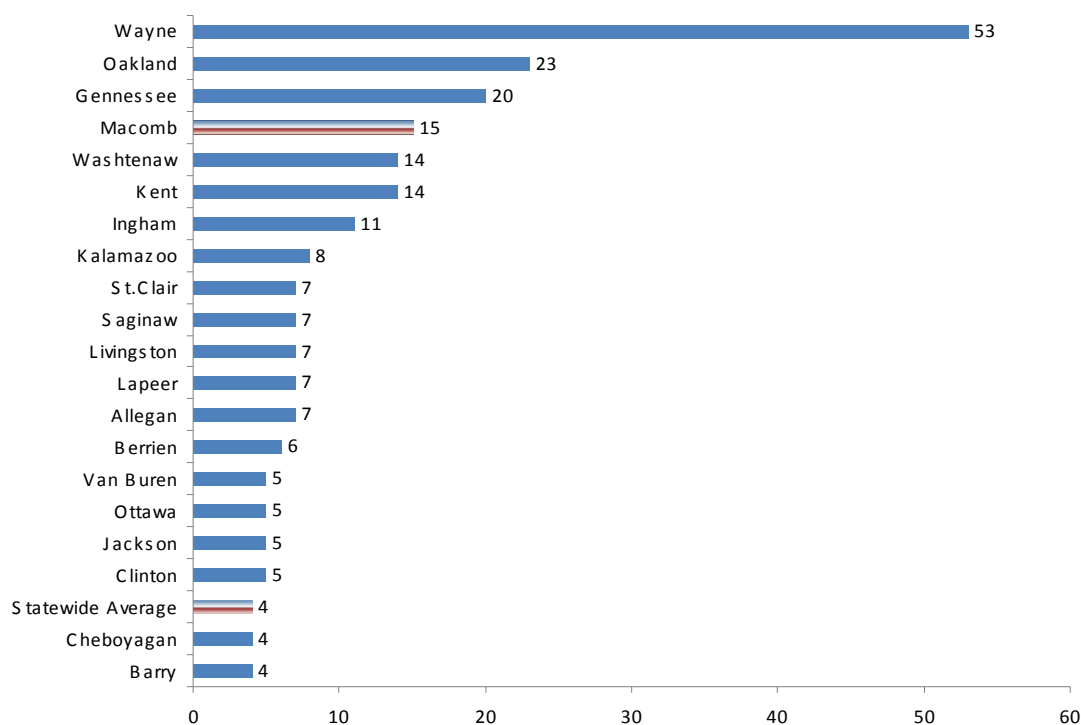


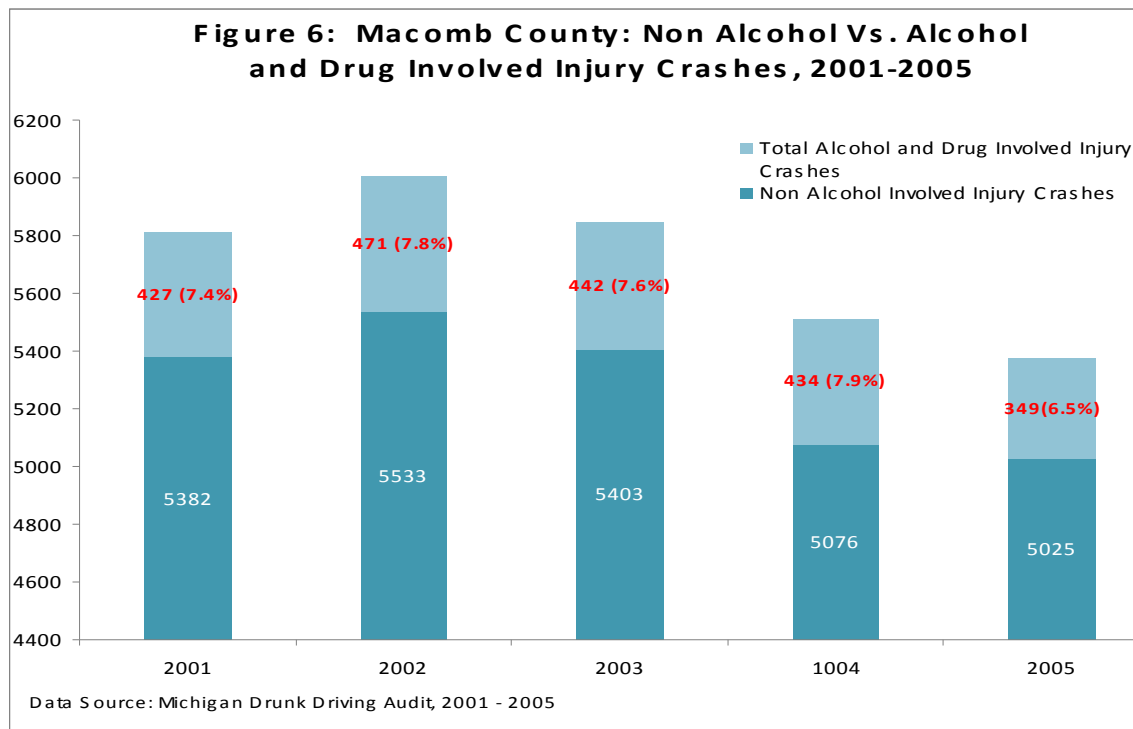
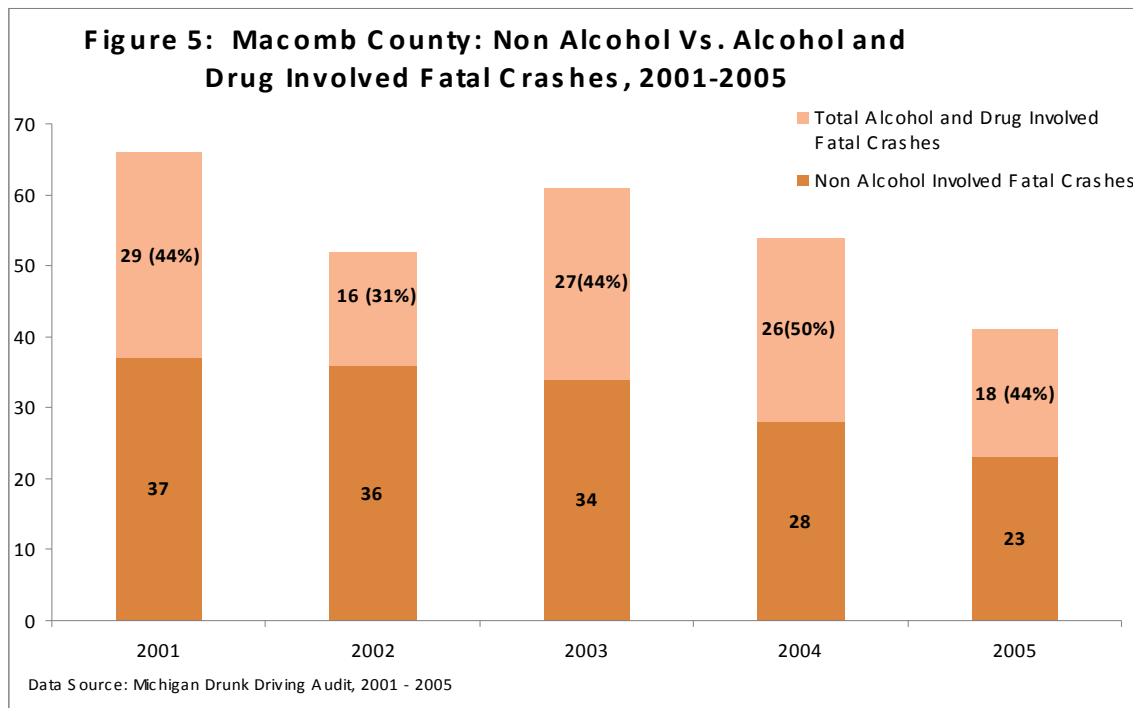


In 2005, nearly five percent (15 total deaths) of the state's total deaths resulting from alcohol related traffic crashes occurred in Macomb, making it the fourth among the counties for the highest number of alcohol related traffic deaths, a rate of 0.19 deaths per 10,000 persons (**Figure 4**). **Figure 5** shows that alcohol and drug involved traffic crash deaths declined from twenty - six (26) deaths in 2004 to eighteen (18) deaths in 2005. However, five year trend data shows fluctuations in the number alcohol related traffic deaths each year since 2001.

Depicted in **Figure 5** and **Figure 6** are the percentages of alcohol and drug related traffic deaths and injuries versus the non alcohol related traffic deaths over a period of time in Macomb County. Trend data shows that the likelihood of death in a traffic crash is significantly high when alcohol and drugs are involved. In 2005, alcohol involvement accounted for approximately 6.5 percent (349) of total traffic crash injuries in Macomb County. When compared to the total number fatalities from traffic crashes, alcohol involvement accounted for approximately forty-four (44% or 18) of the total traffic crash deaths in Macomb County.

**Figure 4: Top 20 County Ranks: Number of Alcohol Involved Fatal Crashes 2005**





## Age

When 2005 alcohol related traffic crash data was stratified by age groups, it showed that crashes occurred at a higher frequency among persons between the ages of 21 to 24 years. **Figure 7** shows the rate of alcohol related traffic crashes among this age group was 51.7 per 10,000 persons (234 total crashes), a rate more than 4.5 times higher than the county level rate of 11.41 per 10,000 persons. The second age group with the highest rate of alcohol related traffic crashes were persons 25 to 30 years (40.6 per 10,000 persons), followed by persons 31 to 40 years (23.6 per 10,000 persons) and persons 41 to 50 years at 24.9 per 10,000 persons. Alcohol related traffic crashes among persons between the ages 12 to 20 occurred at a rate of 16.2 per 10,000 persons.

**Figure 8** displays the data stratified by age groups that could be used for analyzing alcohol related traffic crashes among college age persons. The data shows that the rate of alcohol related traffic crashes increased by 12 percent, at a rate of 58 per 10,000 persons, when persons between the ages 18 through 20 years are included in the total number of alcohol related traffic crashes occurring among college aged persons 18 – 24 years. The rate and number of alcohol related traffic crashes among persons under age 18 years decreased significantly by 88.5% to a rate of 1.84 per 10,000 persons, when 18 through 20 year olds are removed from this age category.

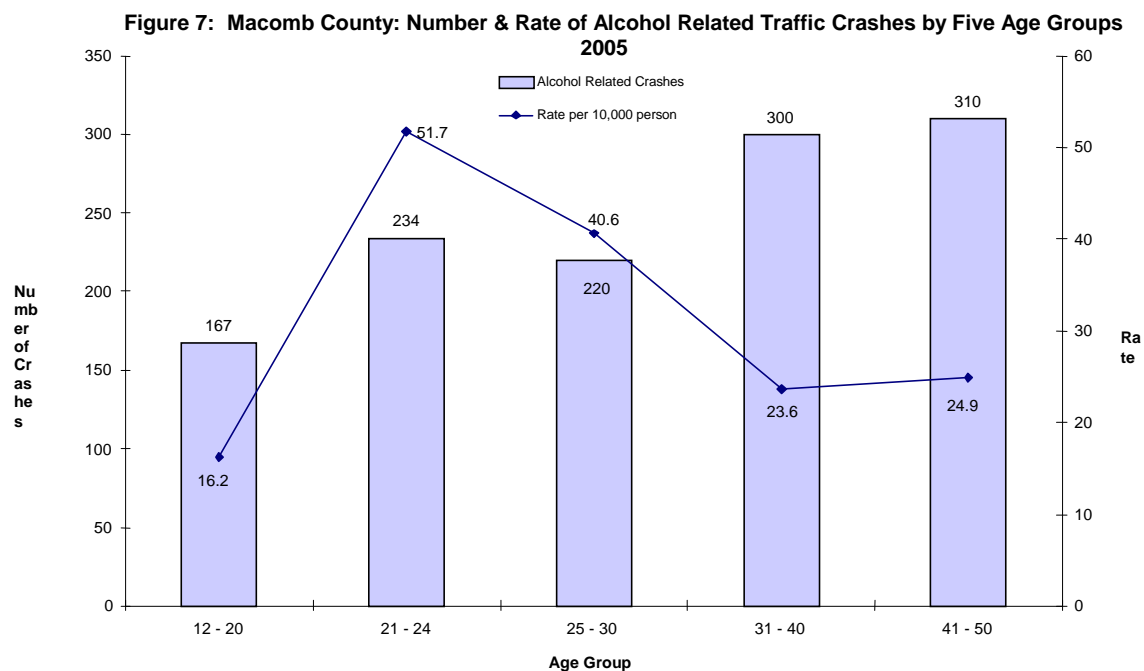
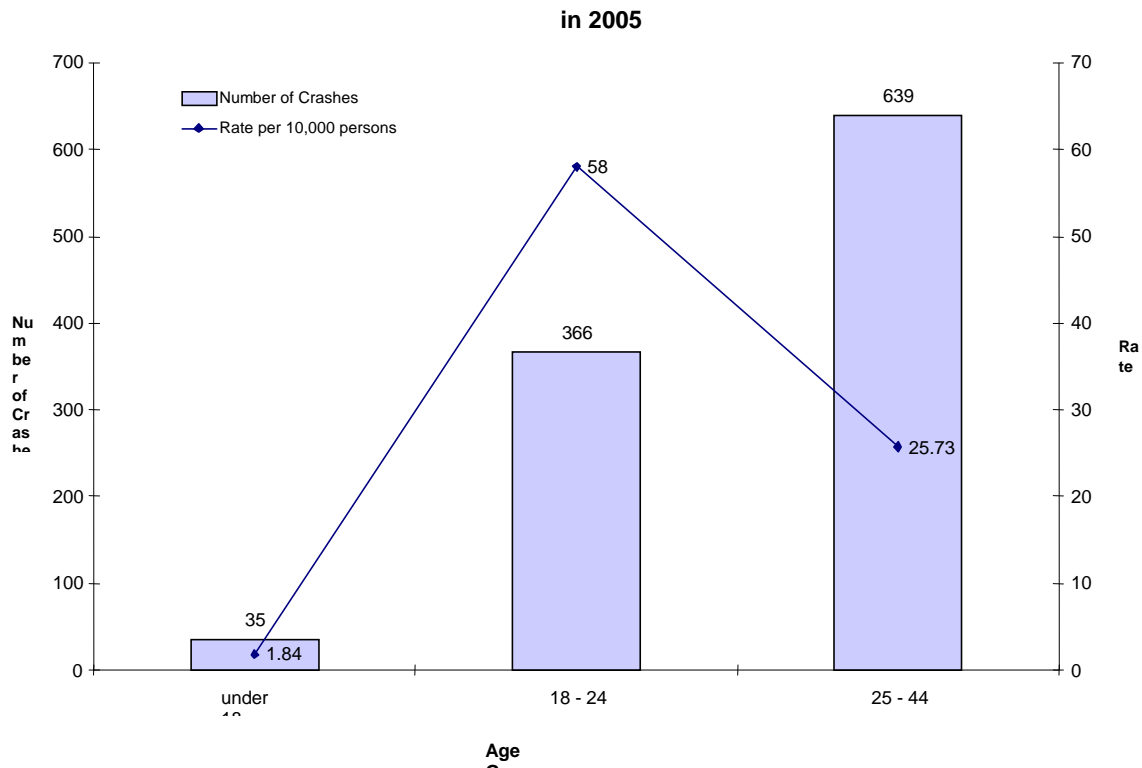


Figure 8: Macomb County: Number & Rate of Alcohol related Traffic Crashes by these Age Groups



## Location

Alcohol related traffic crash data geographically shows higher number of occurrences within cities and on roads situated on the southeastern region of Macomb County. Cities with the highest number alcohol related traffic crashes includes Warren, Clinton Township, Sterling Heights, St. Clair Shores, and Roseville. Intersections within the county with the highest number of crashes from the period of 2001 to 2005 included, Dequindre Rd between Eleven and Twelve Mile Roads; Van Dyke Rd. between Ten and Eleven Mile Roads and Eight and Nine Mile Roads; Gratiot Avenue between Hall and Twenty-one Mile Roads; and Hayes Road. between Nineteen Mile and Hall Roads. **Table 1** on page A-37 includes a listing of the top 50 high crash intersections in Macomb County.

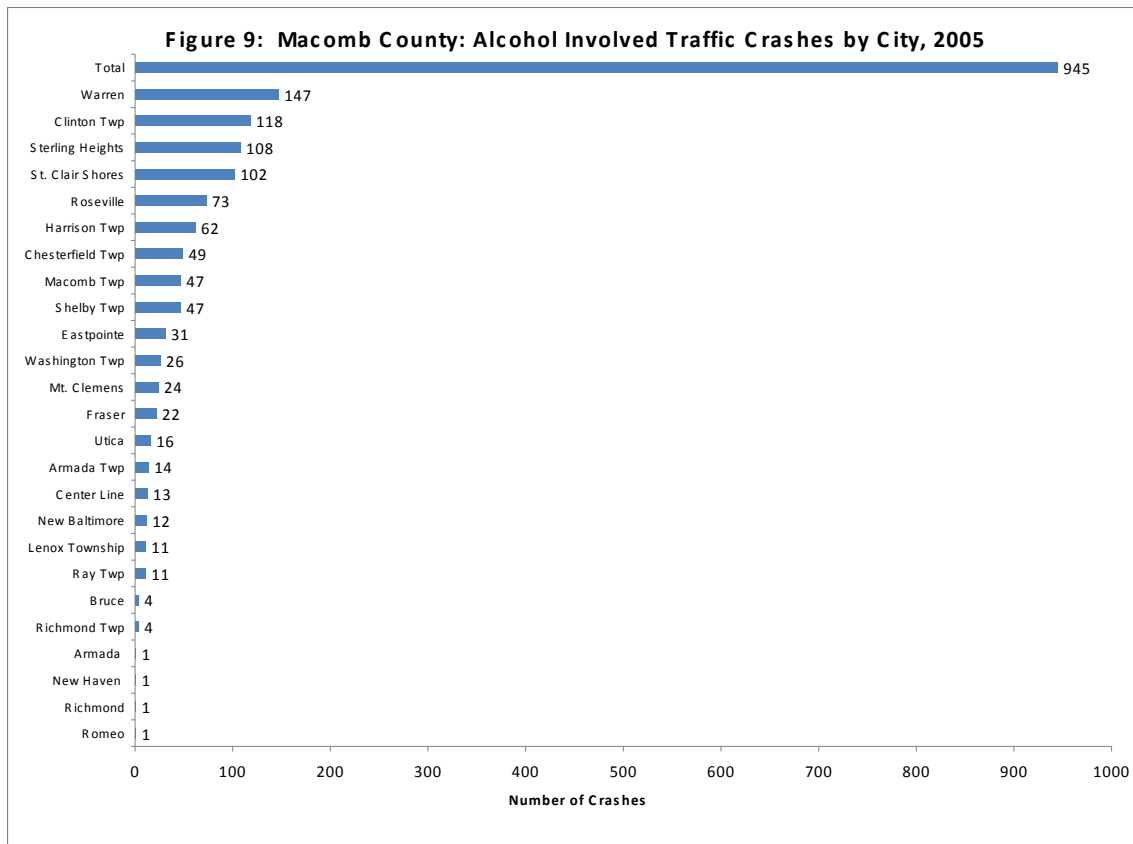
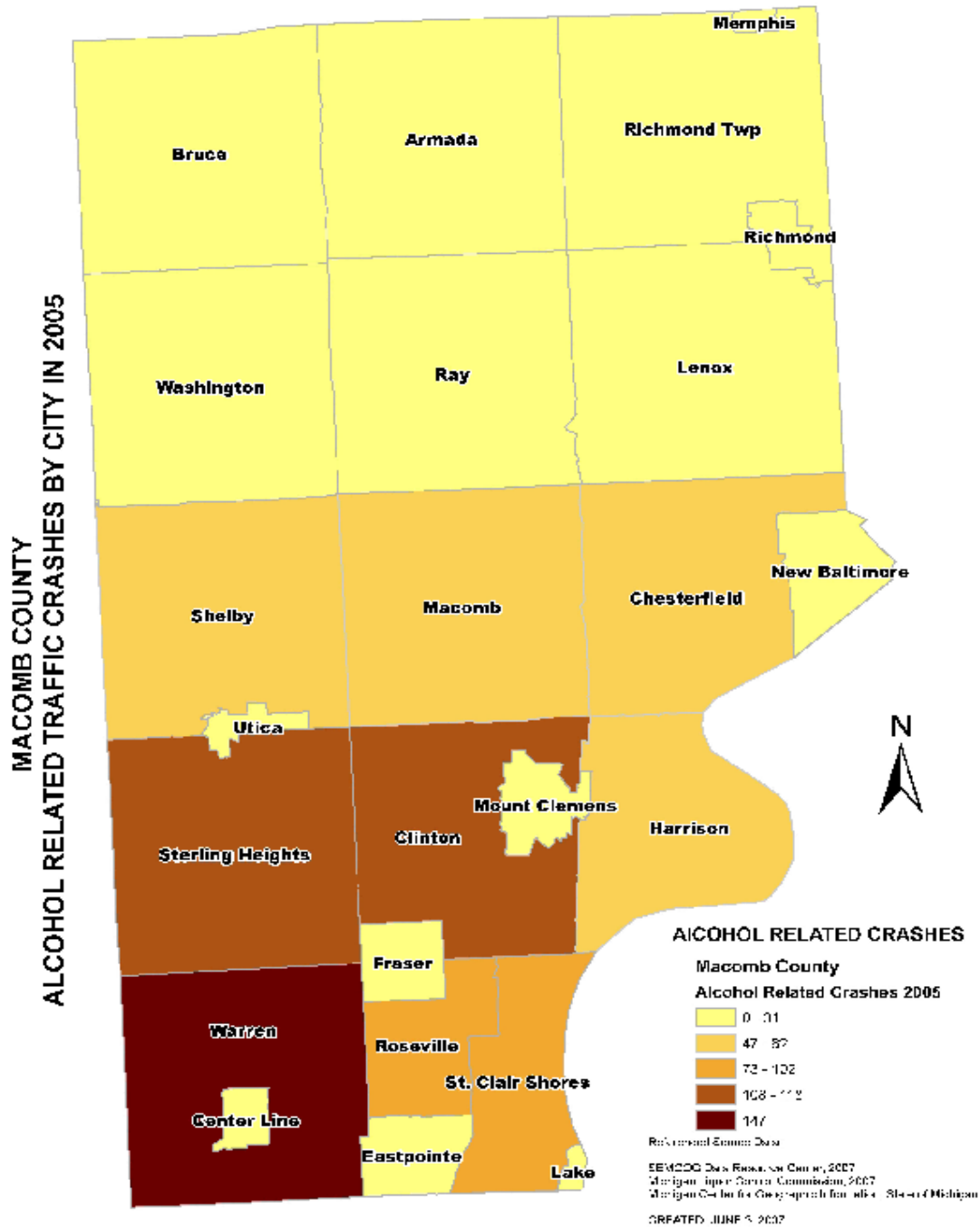
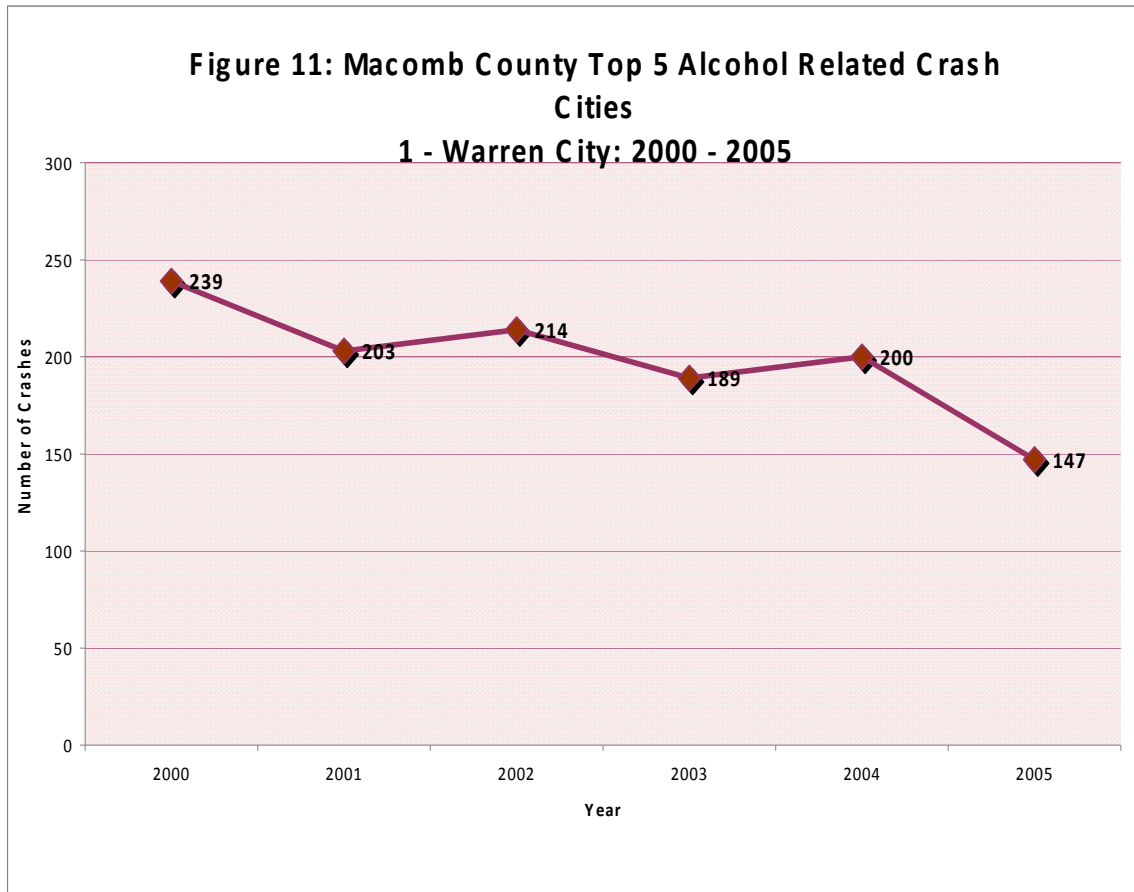


Figure 10



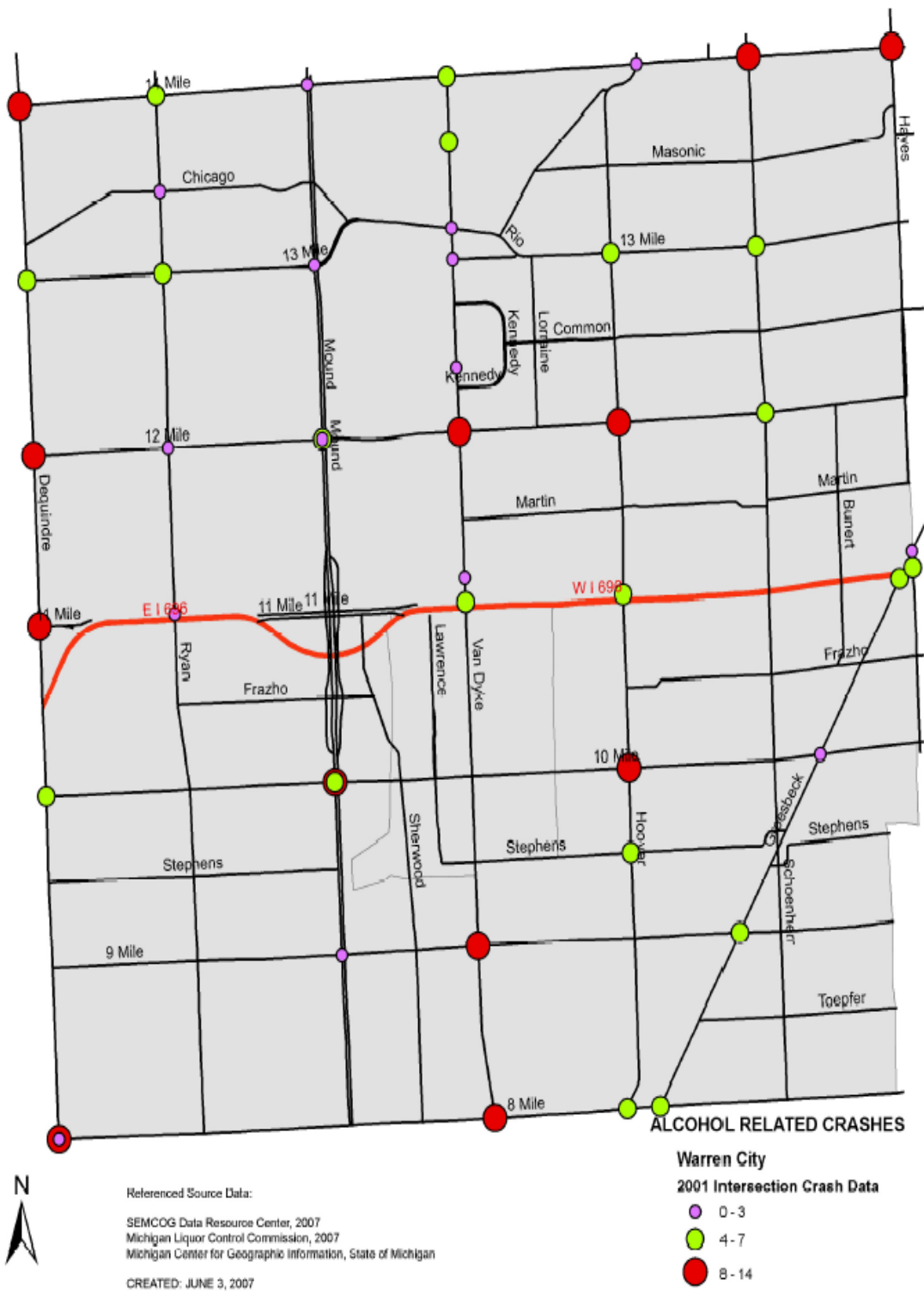
## Warren

The City of Warren had 138, 247 residents in the year 2000, the highest population in Macomb County. Twenty-three percent (23%) of the population is under the age of 18 (US Census Bureau, 2000). In 2005, Warren had a total of 147 alcohol related traffic crashes at a rate of 10.7 per 10,000 persons (15 percent of the county's total crashes); the highest in the county. Six year trend data beginning from the year 2000 shows that alcohol related crashes have been on a slow and steady decline. In 2005, there were 53 fewer alcohol related traffic crashes, a thirty six percent (36%) decrease when compared to 2004.



**Figure 12:**

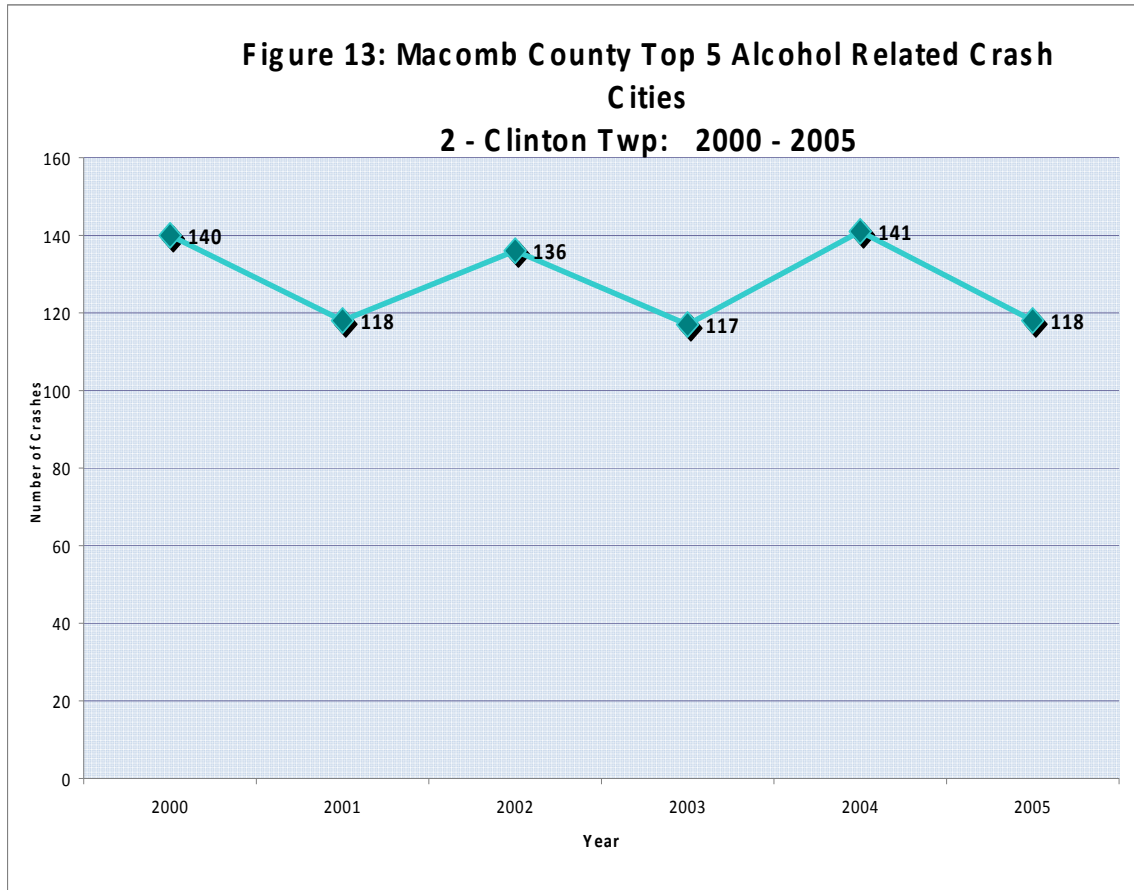
### MACOMB COUNTY; WARREN CITY ALCOHOL RELATED TRAFFIC CRASHES BY HIGHEST CRASH INTERSECTION



Clinton Township

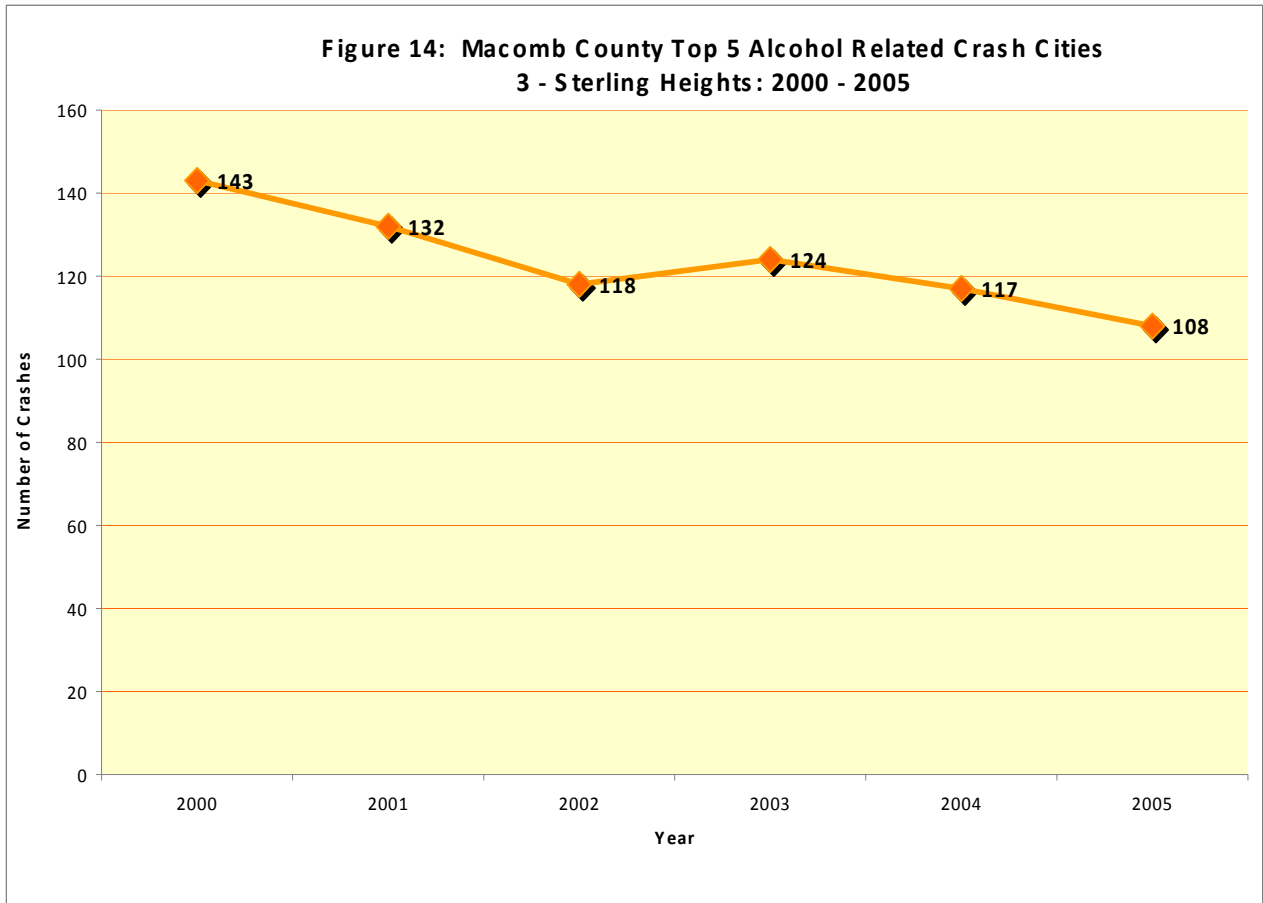


Clinton Township has the third largest population in Macomb County with 95,648 persons residing within the city limits. Twenty-two percent (22%) of the population is less than eighteen years old. Clinton Township also had the second highest number of alcohol related traffic crashes at 118 (12.5%) total crashes in 2005. This is rate of 12.4 per 10,000 persons. Trend data shows that the number alcohol related traffic crashes has been unstable since 2000 and is currently on a decreasing trend.



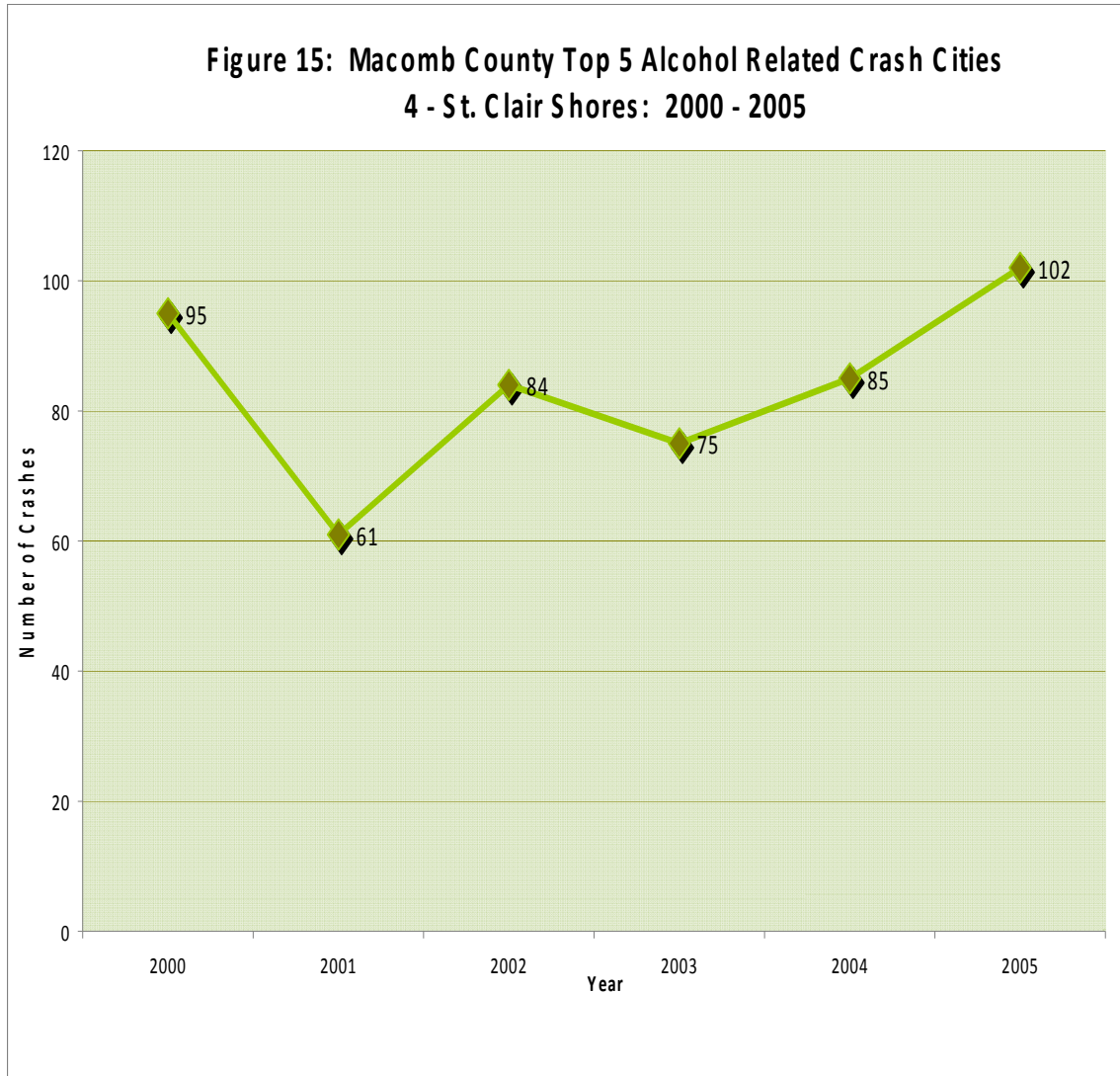
**Sterling Heights**

The City of Sterling Heights has the second largest population in Macomb County with a population of 124,471 of which twenty four percent is 18 years of age (2000 Census Bureau). In 2005, 108 total alcohol related traffic crashes occurred in Sterling Heights, a rate of 8.67 crashes per 10,000 persons making it the third in the county for the highest number of crashes. Five year trend data shows a slow decline in the number of alcohol related traffic crashes since the year 2000.



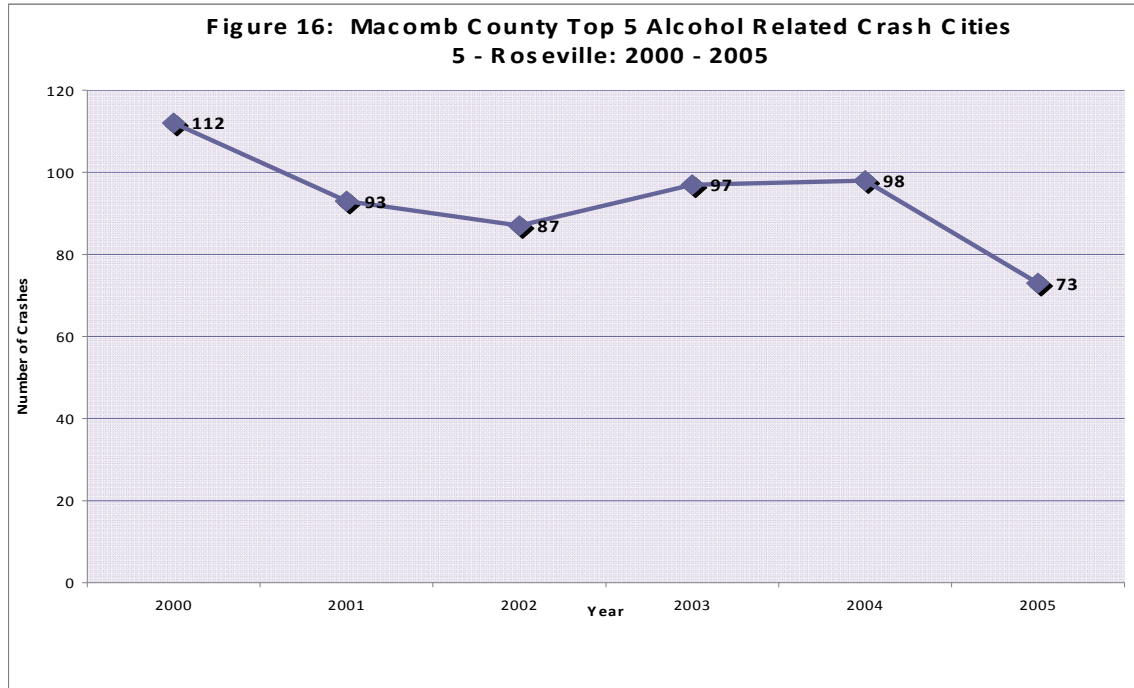
**St. Clair Shores**

St. Clair Shores has a total population of 63,096 people; twenty percent of this population is under age eighteen years. Five year trend data shows that the number of alcohol related traffic crashes has been on an increasing trend since 2001. In 2001, there were a total of 95 alcohol related traffic crashes in the city; this rate has increased in subsequent years. In 2005, there was a total of 102 alcohol related traffic crashes, a sixteen percent increase in crashes since the previous year. The rate of alcohol related crashes in St. Clair Shore was 16.1 crashes per 10,000 persons in 2005.



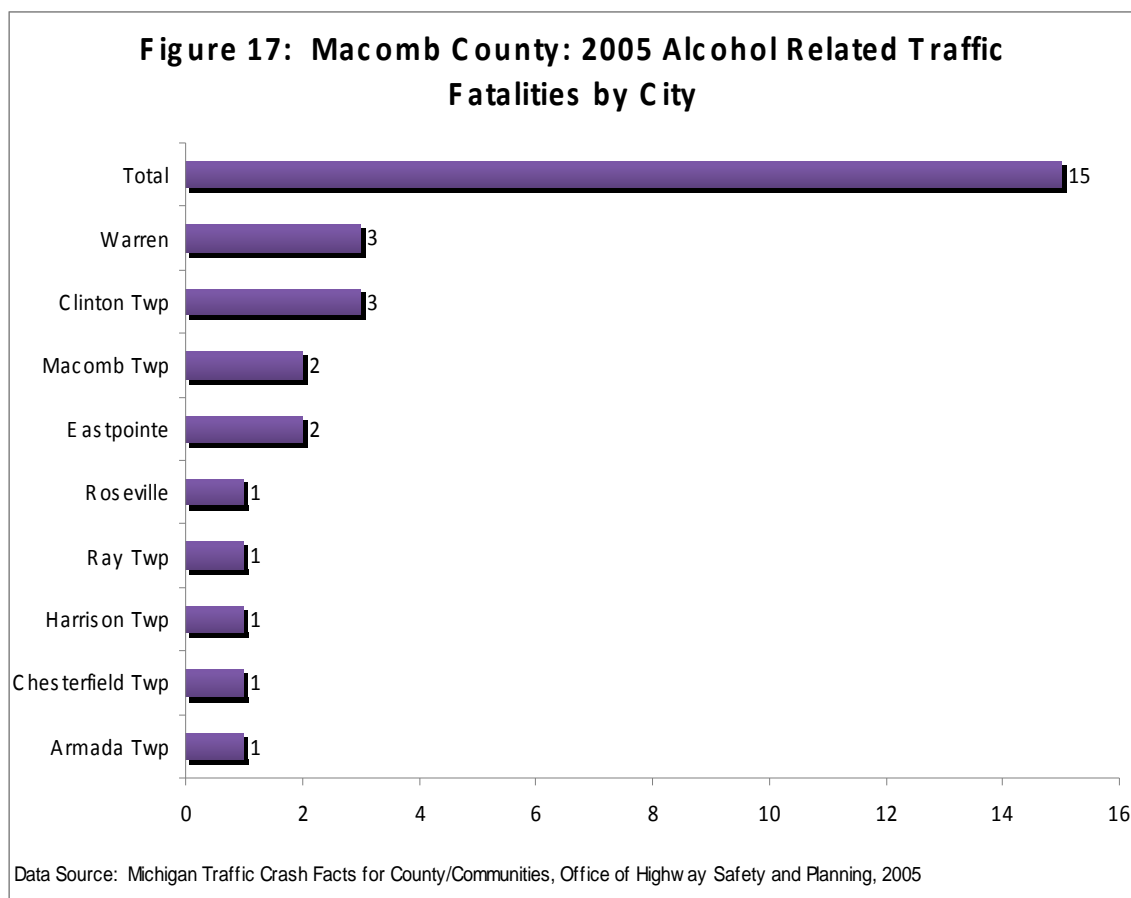
**Roseville**

The city of Roseville is ranked fifth in the county for alcohol related traffic crashes. In 2000, there were approximated 10,467 residents living within the city; twenty-one percent (21%) of this population was under age eighteen years. Trend data shows that the number alcohol related traffic crashes is on a decline in Roseville. In 2005, there were a total of seventy-three alcohol related traffic crashes, a rate of 69.7 crashes per 10,000 persons.



## Fatalities by Location

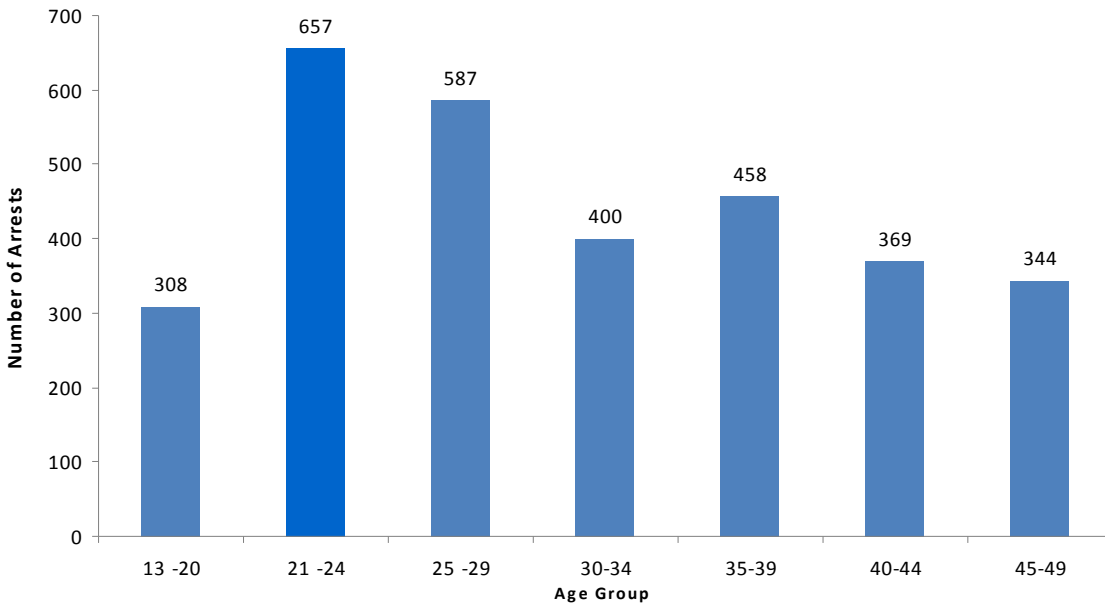
Surveillance data shows that there were a total of fifteen alcohol related fatalities in Macomb County occurring at a rate of .019 deaths per 10,000 persons in 2005. Of the total deaths, three (3) occurred in Warren and Clinton Township at a rate of 0.21 and 0.31 deaths per 10,000 persons respectively. There were a total of two deaths each in Macomb Township and Eastpointe followed by one death in Roseville, Ray Township, Harrison Township, Chesterfield Township, and Armada Township. Armada Township had a total fourteen (14) alcohol related crashes in 2005. Figure 17 displays the cities in Macomb County in which deaths due to alcohol related traffic crashes occurred.



### *Alcohol Related Consequences – Driving Under the Influence arrests*

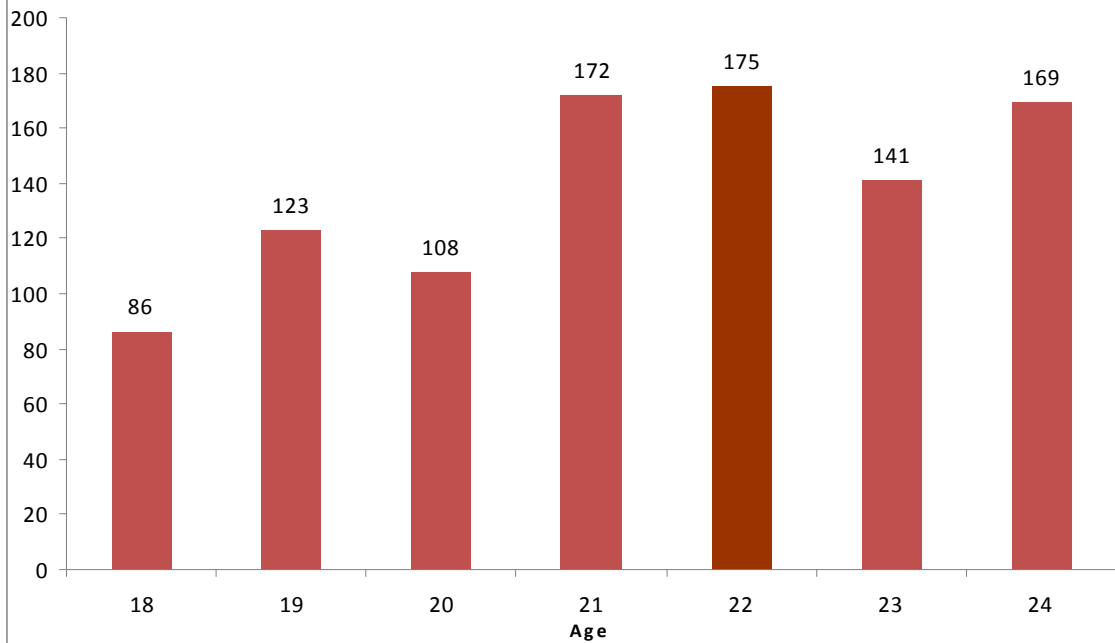
According to the 2005 Michigan Drunk Driving Audit, Macomb County had the third highest number of Driving While Impaired (DUI) arrests in the State with 4,167 total arrests. Of these arrests, nearly sixteen percent (16%) were among persons between the ages 21-24 at a total of 657 total arrests. Another fourteen percent (14%) were among the age group 25 – 29 years with a total of 587 arrests, followed by persons between the ages 30 – 34 with a total of 458 arrests. Persons under the age of 21 years were arrested seven percent (7%) of the time with a total of 308 arrests in 2005. When the age groups were stratified at the single age level, persons age 21 and 22 years had the highest number of arrest with 172 and 175 arrests, respectively. **Figure 18** and **Figure 19** show the number of Driving Under the Influence Arrest by age.

**Figure 18. Macomb County: Number of DUI Arrest by Age, 2005**



\*Liquor Law - Unlaw fully acquiring, manufacturing, transporting, selling intoxicating alcohol liquor  
Data Source: Michigan Uniform Crime Report, 2005

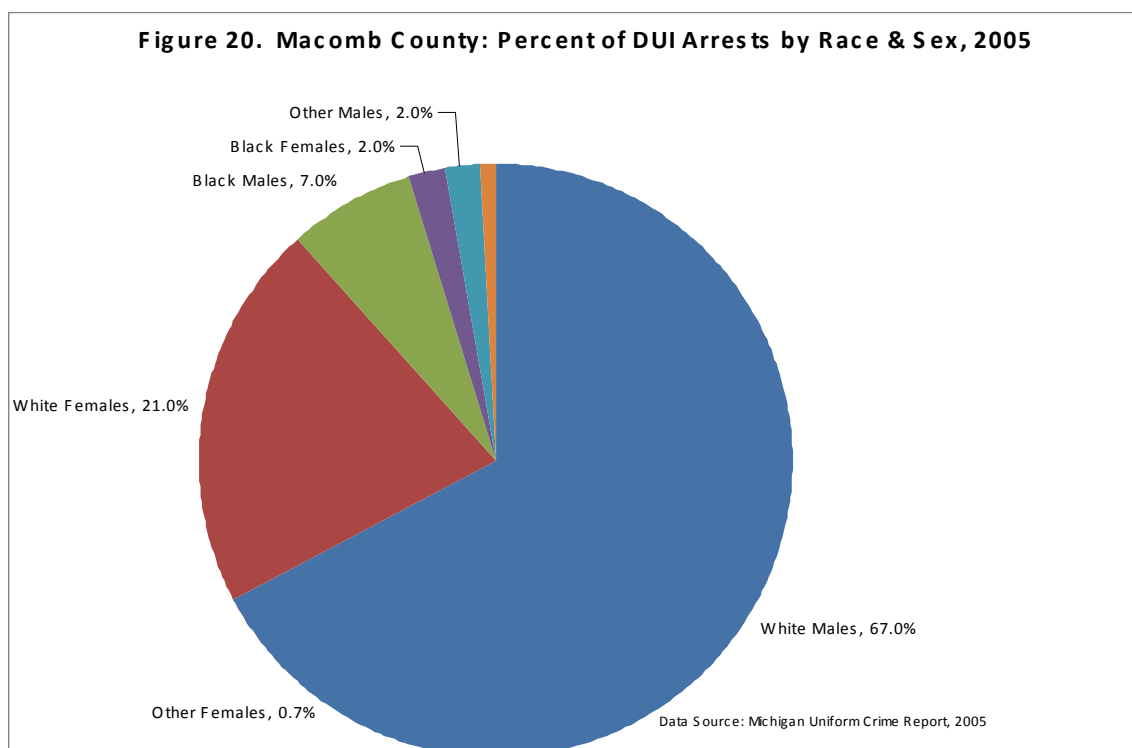
**Figure 19. Macomb County: Ages with Highest Number of DUI Arrests, 2005**



Data Source: Michigan Uniform Crime Report, 2005

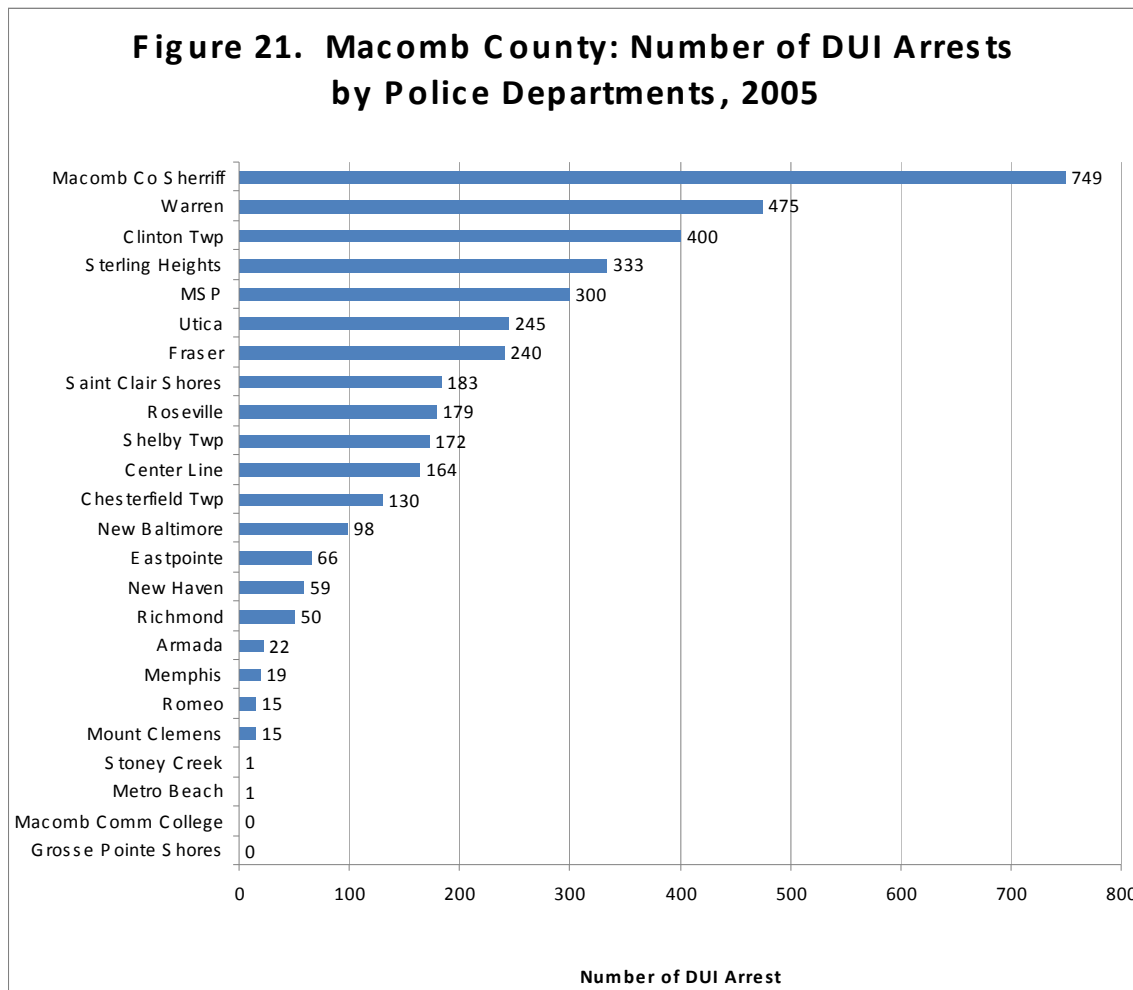
## DUI Arrests by Race

The data shows that seventy-six percent (76%) of the total arrests made in Macomb county were among Whites at a rate of 43.5 arrests per 10,000 persons; sixty seven percent (67%) of the total arrests made were among White males and twenty-one (21%) were among White females. Among Blacks, eight percent (8%) of arrests were made at a rate of 152.9 arrests per 10,000 persons; seven percent (7%) of the total arrests were among Black males and two percent (2%) were among Black females (Figure 20).



## DUI Arrests by Location

**Figure 21** shows the number of DUI arrests by police department. According the Michigan Uniform Crime Reports (2005), the Macomb County Sheriff's Department reported the most number of arrests at 749 arrests. The Sheriff's Department covers a jurisdiction of 114, 647 people, and has a total of 251 sworn officers to serve this population. The city of Warren had the second highest number of arrests with a total of 475 arrests in 2005. Warren's police department serves a jurisdiction of 138, 247 persons, and has a total of 239 sworn officers to cover this jurisdiction. Clinton Township had the third highest number of arrests with 333 total arrests. Clinton Township's police department serves a jurisdiction of 95,648 people, and has 105 sworn officers to cover this population. The Michigan State Police arrested the fourth highest number of people with 300 arrests made. The city of Utica made the fifth highest number of arrests with 245 total arrests. The city of Utica serves a population of 4,577 and has 17 sworn offers to serve this population.

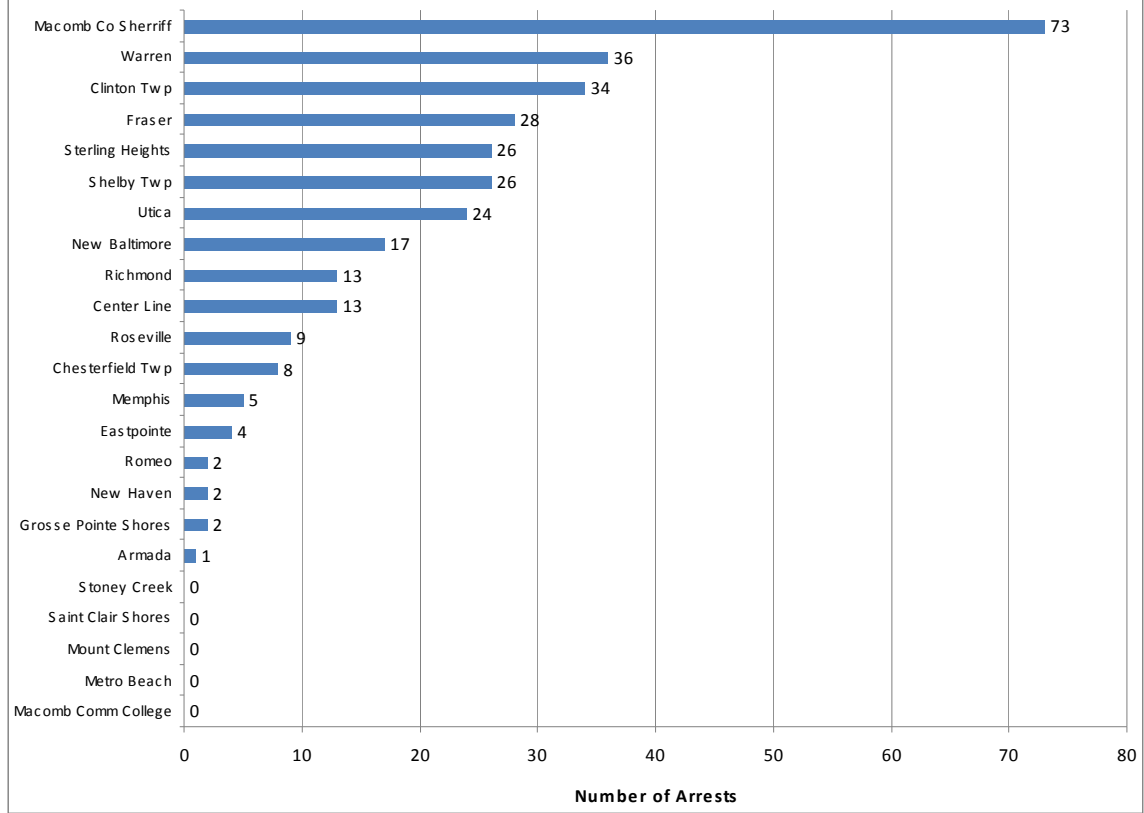


### DUI Arrests - Underage Drinkers

Among persons under the age of 21 years, there were a total of 323 arrests made by Macomb County police departments. **Figure 22** shows that the Macomb County Sheriff’s Department made the highest number of arrests among persons between the ages 13-20 with 73 total arrests. The city of Warren made the second highest total arrests, 36 among this age group. Clinton Township made 34 arrests, followed by Fraser and Sterling Heights with 28 and 26 arrests, respectively.



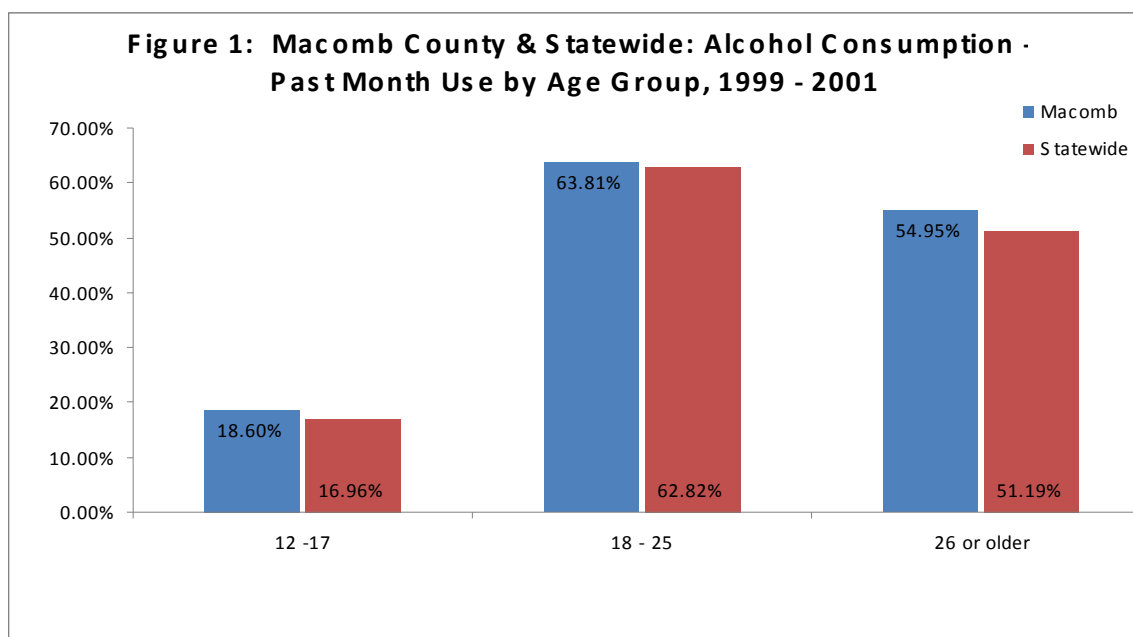
**Figure 22. Macomb County: Number of DUI Arrests of Underage Drinkers 13 - 20 years by City, 2005**

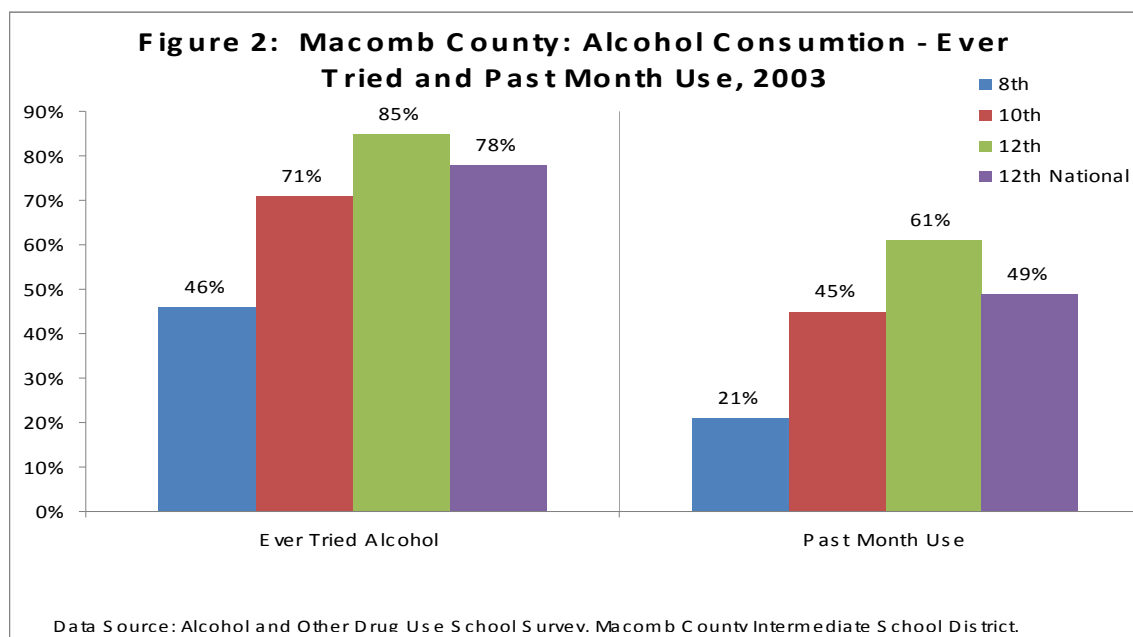


## SECTION II - UNDERAGE DRINKING

Data from the National Survey on Drug Use and Health (NSHDUH) and the Macomb County Alcohol Tobacco and Drug Use Survey (MISD) were used to assess the impact of underage drinking on the County. NSHDUH data provides alcohol consumption prevalence rates by coordinating agency (CA) region broken down by age groups that are useful for comparing CA regions to statewide prevalence rates. The Macomb County Alcohol Tobacco and Drug Use Survey provides alcohol consumption prevalence rates for youth in 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grades in 2003.

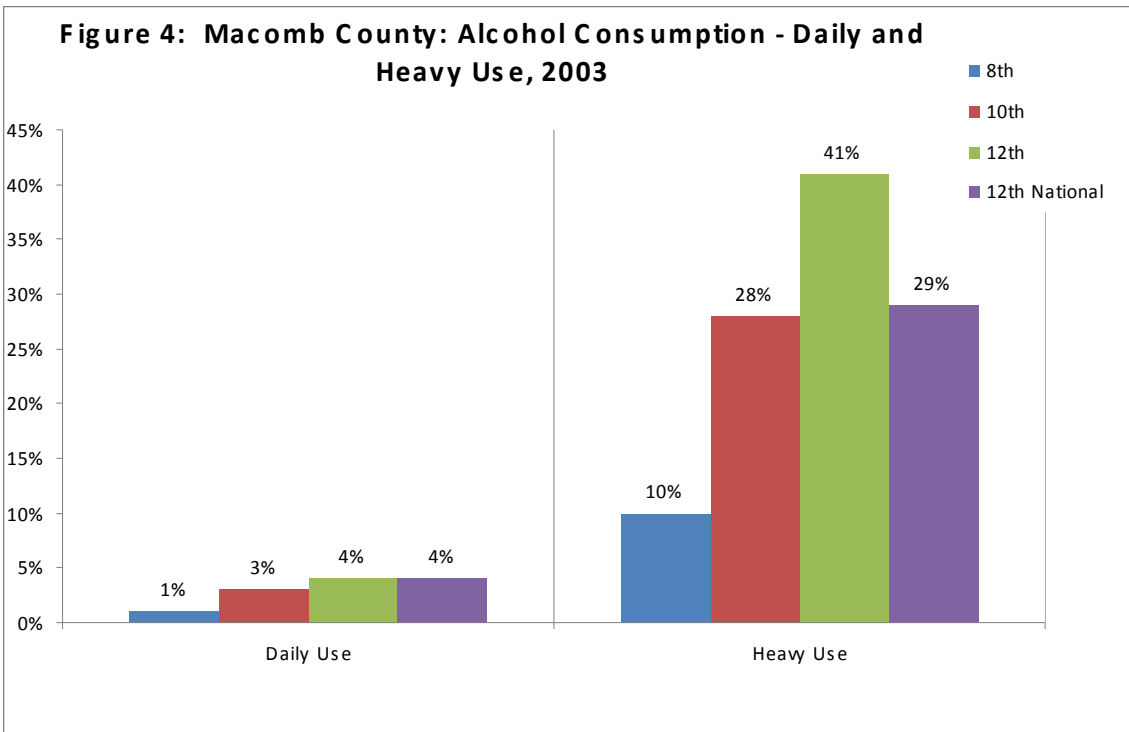
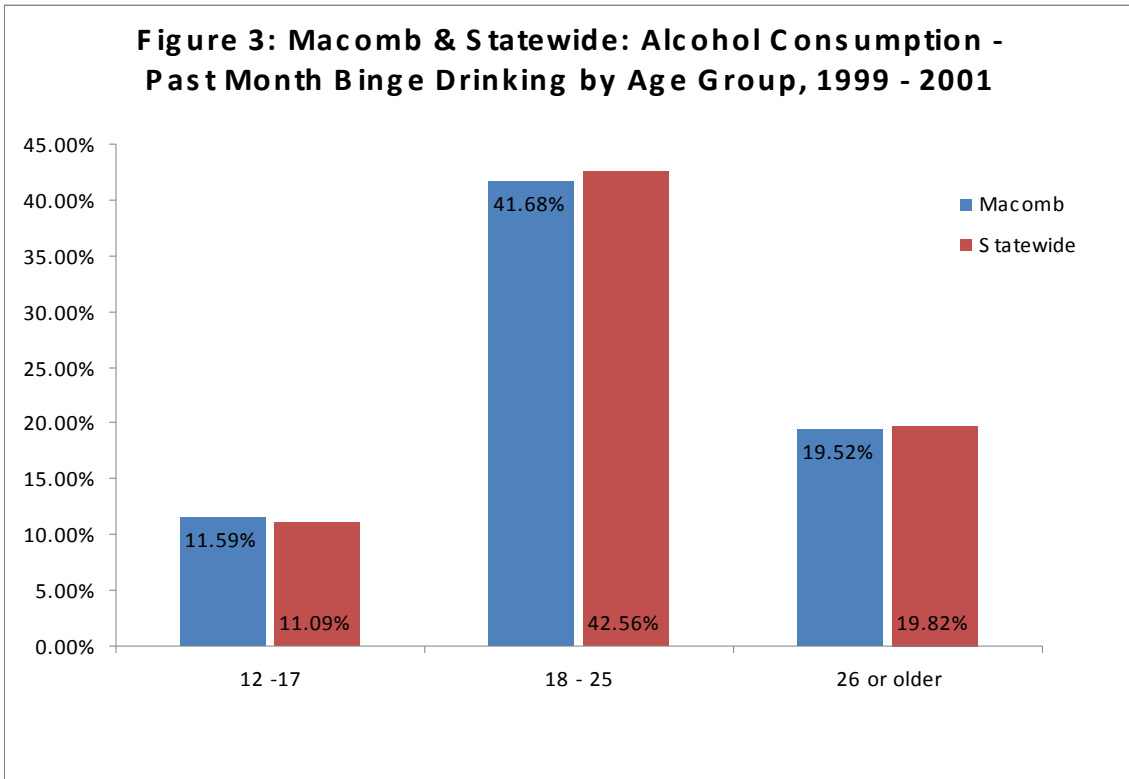
According to these surveys, there are larger percentages of alcohol use and binge drinking among Macomb's youth compared to the statewide rates. The 1999-2002 NSDUH data indicated that there were a higher percentage of youths who reported past month use of alcohol in Macomb County when compared to the state. The data shows that 18.6 percent of youth ages 12 -17 years old reported past month use of alcohol in Macomb compared to 16.9 percent statewide. Among persons 18-25 years 41.6 percent in Macomb County reported past month use compared to 42.5 percent statewide. **Figure 1** shows the prevalence of past month use by age groups in Macomb County and in Michigan. The Macomb Alcohol and Drug Use Survey which also tracks past month alcohol use among middle and high school students showed that in 2003, twenty-one percent (21%) of 8<sup>th</sup> graders, forty-five percent (45%) of 10<sup>th</sup> graders, and sixty-one percent (61%) of 12<sup>th</sup> graders reported past month use of alcohol. Forty-nine percent (49%) of 12<sup>th</sup> graders reported past month use nationally. **Figure 2** displays the percentage of middle and high school students who reported past month use of alcohol and ever trying alcohol in 2003.





## Binge Drinking

Binge drinking which is defined as having 5 or more drinks in one setting. It has been correlated with many adverse health and social consequences including death and injury as a result of alcohol related traffic crashes and arrests. According to the 1999-2002 NSDUH data 11.6 percent of youth ages 12 - 17 reported binge drinking in Macomb County. The statewide prevalence rate was 11 percent during this same period. Among 18-25 year olds, 41.7 percent of persons between the ages 18-25 reported binge drinking compare to 42.6% statewide; 19.52 percent of persons age 26 or older reported binge drinking. **Figure 3** shows the countywide and statewide comparison of binge drinking prevalence by age group (NSDUH). Among 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders who reported drinking, ten percent (10%) of 8<sup>th</sup> grader, twenty-eight percent (28%) of 10<sup>th</sup> graders, and 41% of 12<sup>th</sup> graders reported heavy drinking. The national rate of heavy drinking among 12<sup>th</sup> graders in 2003 was twenty-nine (29%). **Figure 4** shows the percentages of 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders who reported daily and heavy use of alcohol in 2003 (MISD).



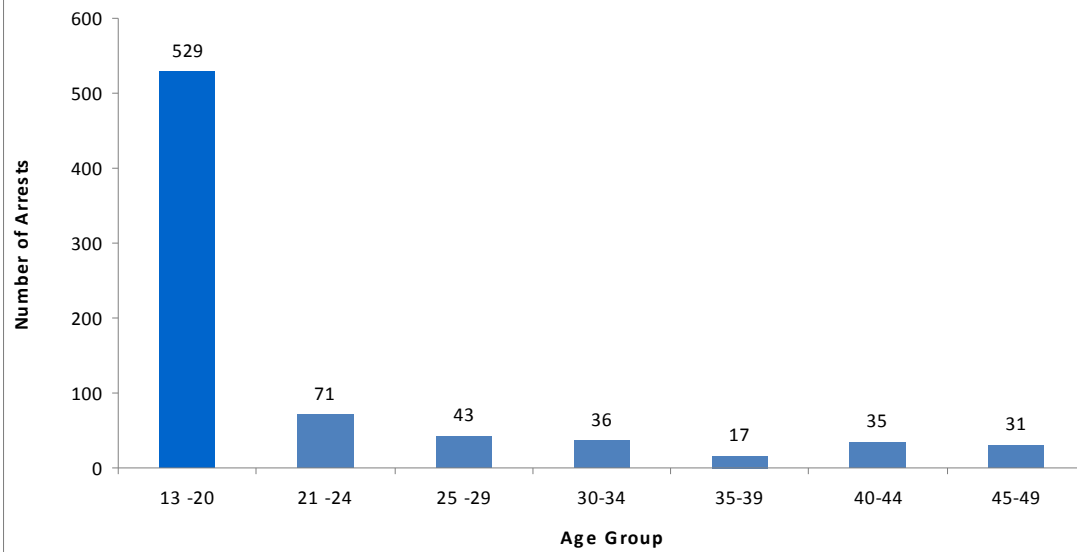
## Drinking and Driving and Riding Behaviors

Highly correlated with the underage drinking and young adults binge drinking rates are the number of alcohol related traffic crashes and DUI arrests among these age groups when compared statewide. According to the Macomb County Alcohol Tobacco and Other Drug School Survey (MISD 2003), eighteen percent (18%) of 12<sup>th</sup> graders reported driving after drinking, nine percent (9%) reported driving after binge drinking, twenty-four percent (24%) reported riding with someone who had been drinking, and fourteen percent (14%) reported riding with someone who had been binge drinking. Among 10<sup>th</sup> graders, eight percent (8%) reporting drinking and driving behavior, four percent (4%) reported driving after binge drinking, twenty-eight percent (28%) reported riding with a someone who had been drinking and fourteen percent (14%) reported driving with someone who had been binge drinking. Among 8<sup>th</sup> graders, three percent (3%) reported drinking and driving, two percent (2%) reported driving after binge drinking, twenty-five percent (25%) have ridden with a drinking driver, and twelve percent (12%) rode with a driver who had been binge drinking.. There were 308 DUI arrests made among underage drinkers. See **Figure 18** (page A-22) in alcohol related traffic crash section

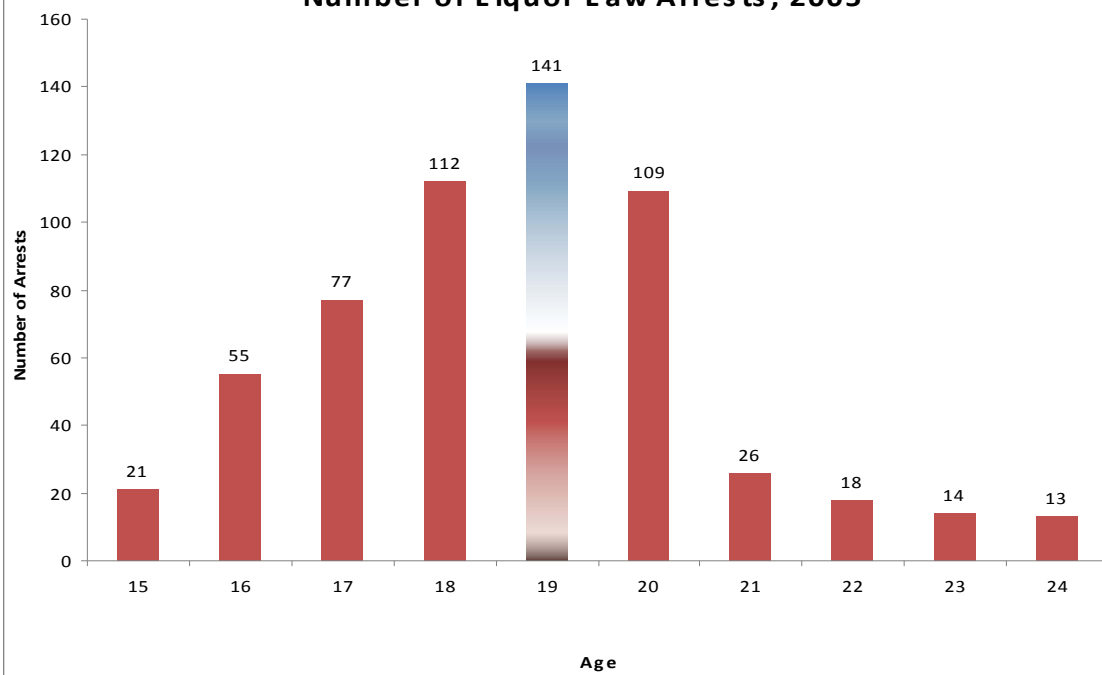
## Liquor Laws Arrests

Liquor law arrests can be made as a result of minors or adults unlawfully acquiring, manufacturing, transporting, and selling intoxicating alcohol liquor to minors and is a useful indicator for assessing the impact of underage drinking in a community. In 2005, there were a total 791 liquor law arrests in Macomb County (Michigan Uniformed Crime Reports, 2005). Among those arrested, approximately sixty-seven percent (67%) were between the ages 13 – 20 years old, a total of 521 arrests (**Figure 5**). There were 71 (9%) arrests made among persons between the age 21-24 and 43(5%) arrests made among persons 25-29 years old. When stratified by the individual age level (**Figure 6**), persons ages 18, 19, and 20 were arrested more frequently than persons of other ages, with total number of arrest 112, 141, and 109, respectively. The data also shows (**Figure 7**) that of the total number of arrests made for liquor law violations, eighty-five percent (85%) were made among Whites, at a rate of 9.20 arrests per 10,000 persons; sixty-seven percent (67%) of the total arrests were among White males and twenty-one percent (21%) were among White females. Among Blacks, there were 94 (12%) arrests made, a rate of 44 arrests per 10,000 persons; ten percent (10%) among Black males and two percent (2%) among Black females. There were two arrests made among Native American/Alaskan Native persons and two made among Asian Pacific persons. There were no arrests identified as Hispanic persons.

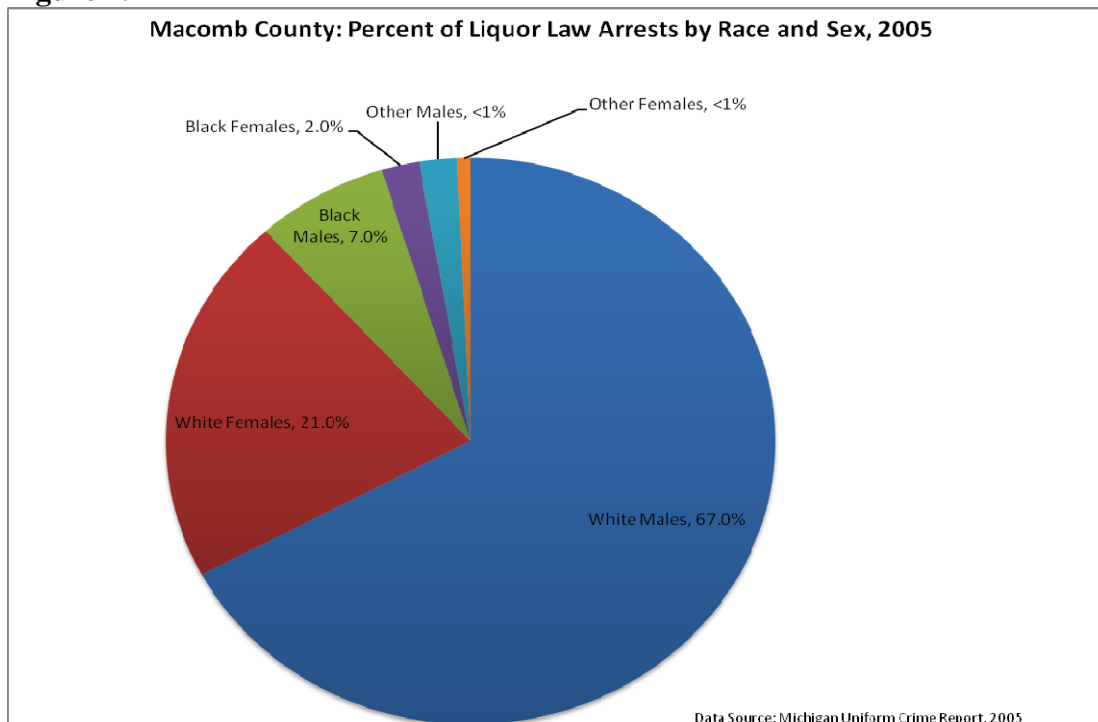
**Figure 5: Macomb County: Number of Liquor Law Arrests, 2005**



**Figure 6: Macomb County: Ages with the Highest Number of Liquor Law Arrests, 2005**



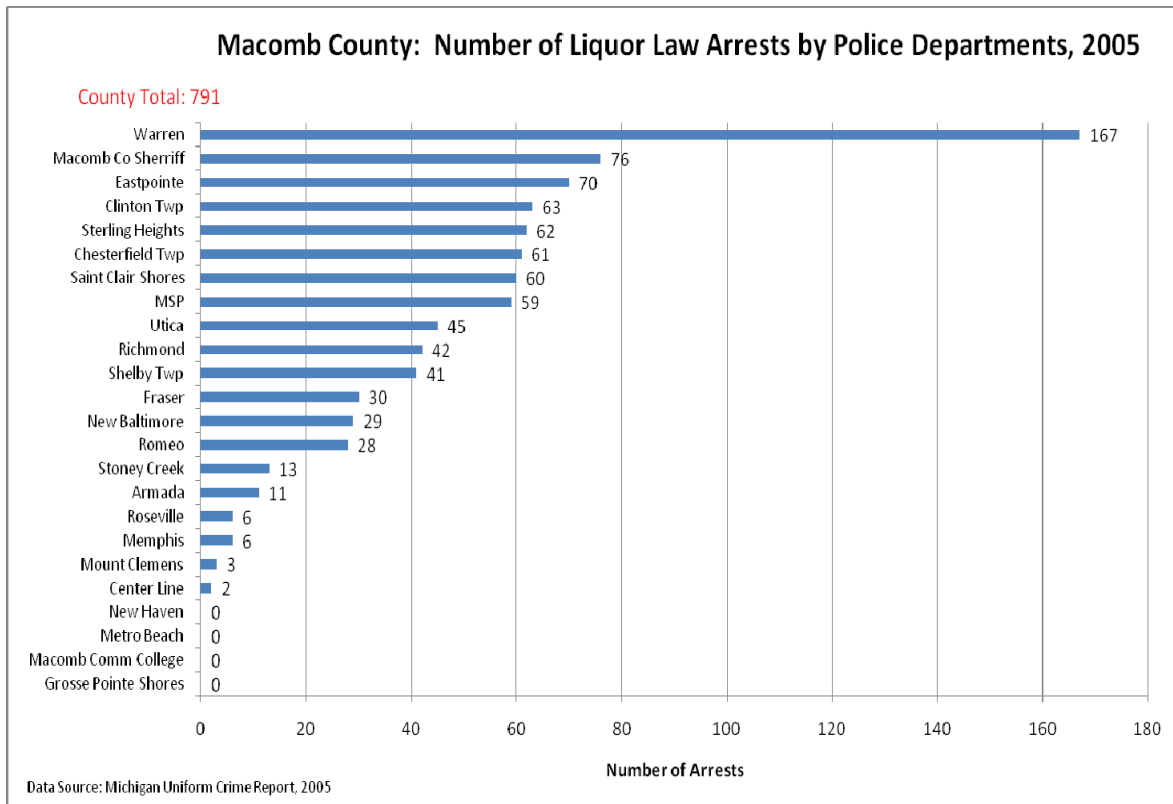
**Figure 7.**



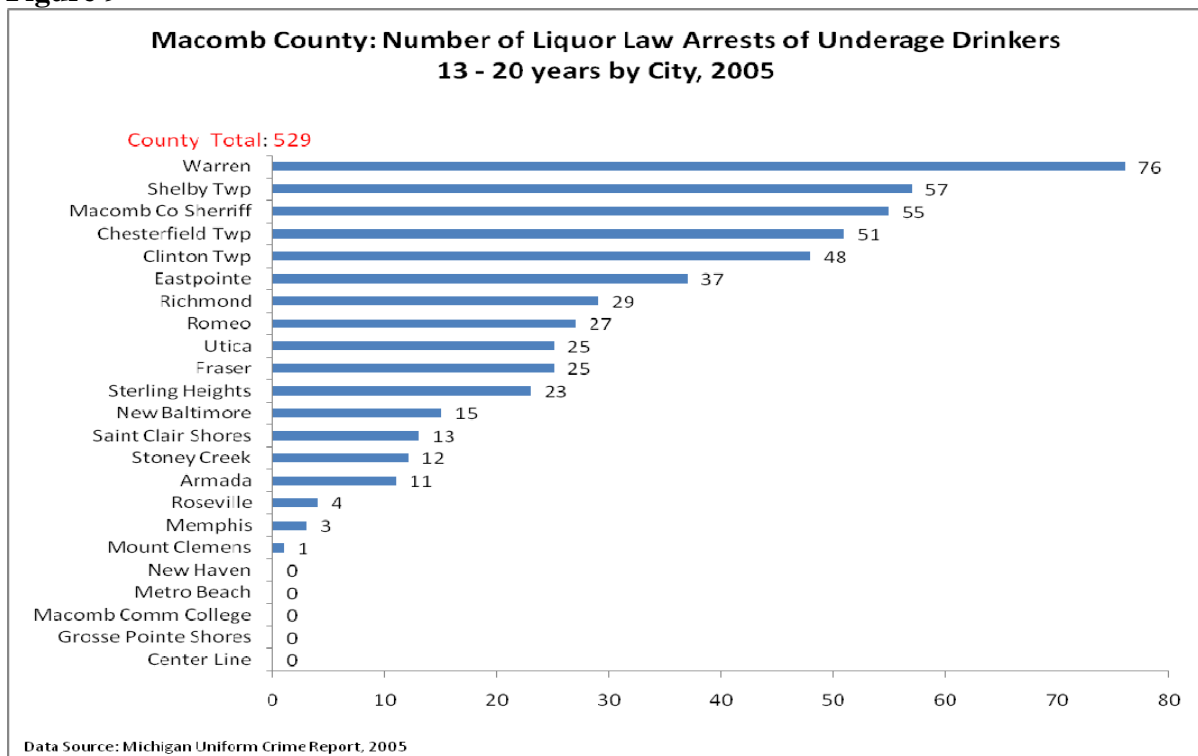
### Liquor Law Arrests by Location

Geographically, the highest number of arrests was made in the City of Warren with a total of 167 arrests for liquor law violations (**Figure 8**). The Macomb County Sheriff’s Department made 76 arrests. Eastpointe’s police department, serving a jurisdiction of 34, 077 people and having 50 sworn officers, made 70 arrests, followed by Clinton Township at 63 arrests and Sterling Heights at 62 arrests. Among underage persons (**Figure 9**), the highest number of arrests was made in Warren, a total of 76 arrests, followed by Shelby Township at 56 persons arrested between the ages 13-20, 55 arrests by the Macomb County Sheriff’s Department and 51 arrests made by the Chesterfield police department. The Chesterfield police department serves a jurisdiction of 37,405 persons with 46 sworn officers covering the jurisdiction.

**Figure 8.**



**Figure 9**

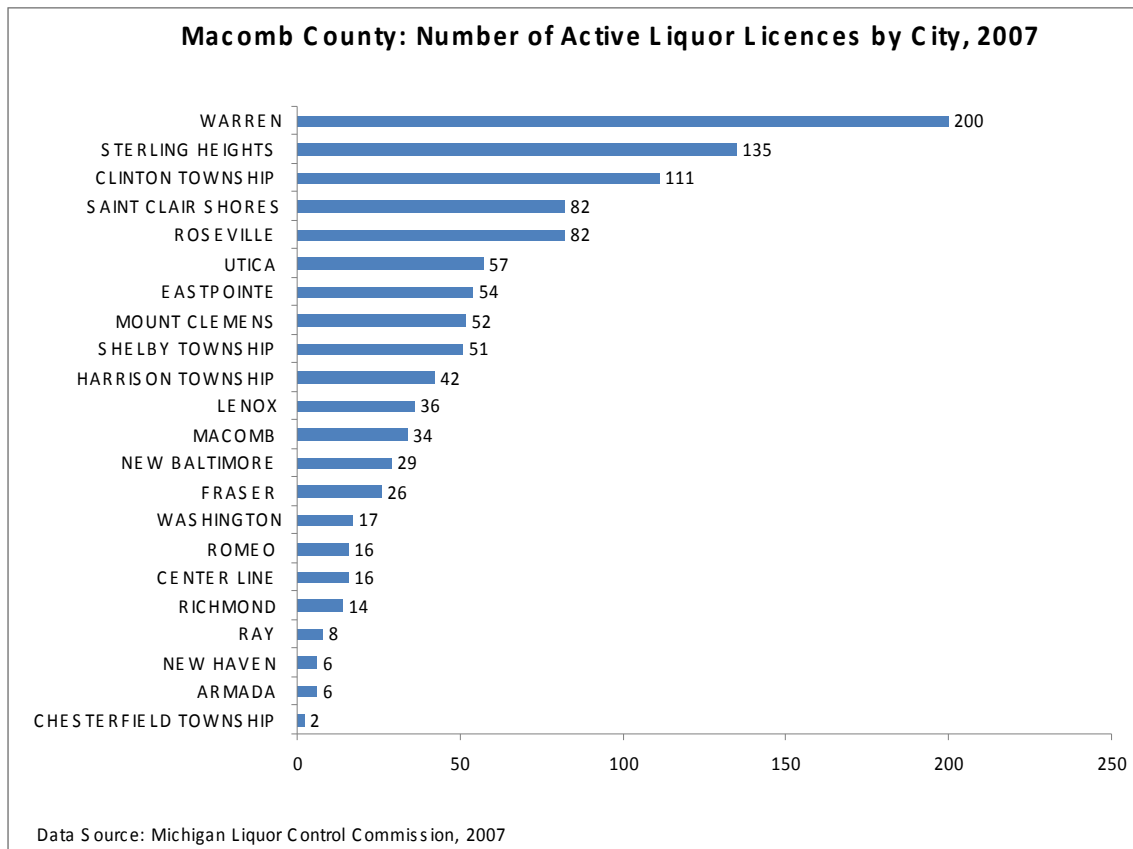


## Active Liquor Licenses



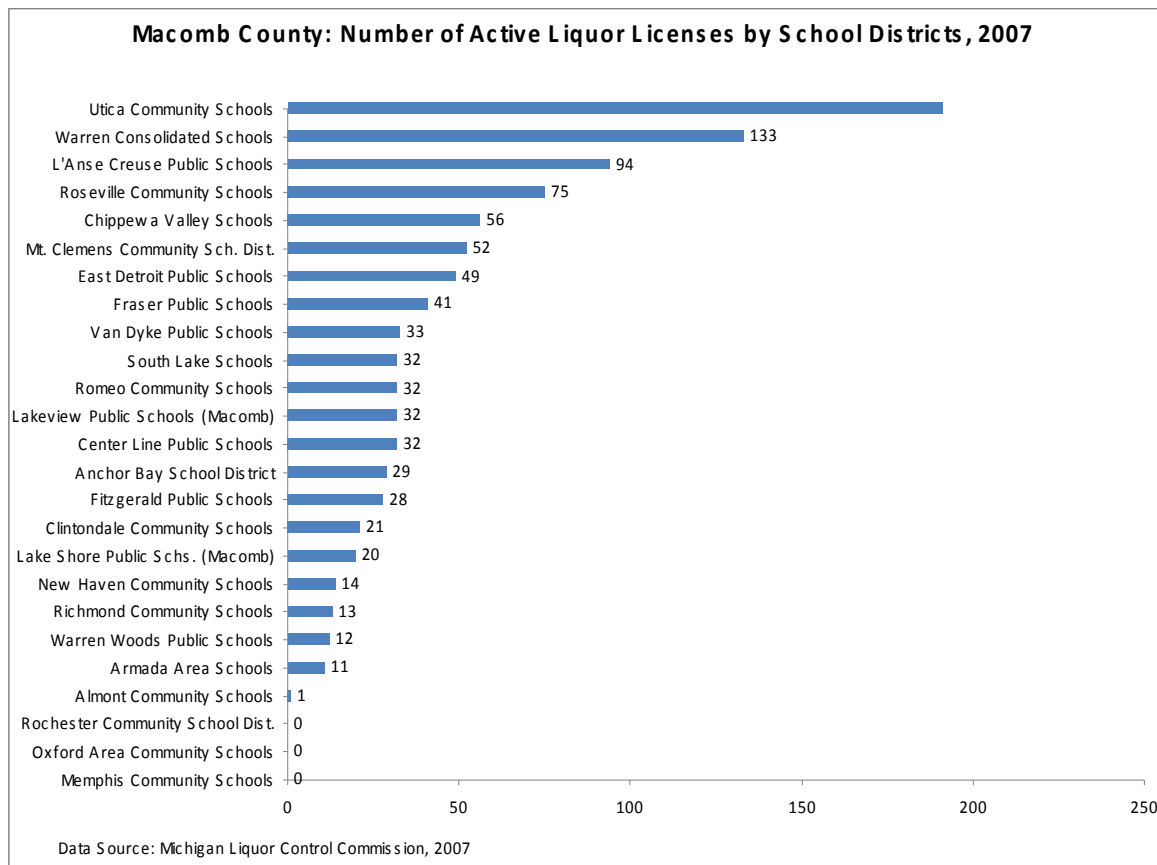
Data reporting the number of liquor licenses provides another dimension of assessing the problem of drinking and driving and underage drinking based on the density of active licenses within a given area. There were 1,077 active licenses within Macomb County. As illustrated in **Figure 10**, the City of Warren had the highest number of liquor licenses at 200. Zip codes within this area comprising the highest number of licenses are 48089, 48091, 48092, and 48093. The city with the second highest number of liquor licenses is Sterling Height with a total of 136 active liquor licenses. Zip codes with a high density of liquor licenses in Sterling Heights are 48310, 48312, 48313, and 48314. St. Clair Shores had the third highest number of license at 111 active licenses, followed by Roseville and Utica with 82 active licenses each. See **Table 1** for the number active liquor licenses by zip code. **Figure 11** shows the number of liquor licenses by school district. Utica Community Schools had the highest number with 191 active licenses within district boundaries. Warren Consolidated schools had the second highest with 133 licenses, followed by L’Anse Creuse Public Schools (94), Roseville Community Schools (75) and Chippewa Valley Schools(56). **Table 2** shows the number of liquor licenses by school districts.

**Figure 10.**



<b>Table 1. Number of Active Liquor Licenses by Zipcodes</b>		
<b>City</b>	<b>Zip code</b>	<b>Number of Liquor License</b>
Armada	48005	6
Centerline	48015	16
Eastpointe	48021	54
Frazier	48026	26
Clinton Township	48035	41
	48036	23
	48038	46
Macomb Township		
	48042	12
Mount Clemens	48043	52
Macomb Township	48044	23
Harrison Township	48045	42
Chesterfield/New Baltimore	48047	35
Lenox/New Haven	48048	7
	48050	1
Chesterfield	48051	30
Richmond	48062	14
Romeo	48065	15
Roseville	48066	82
St. Claire Shores	48080	45
	48081	21
	48082	16
Warren	48088	3
	48089	53
	48091	52
	48092	47
	48093	45
Washington	48094	11
	48095	7
Ray	48096	8
Sterling Heights	48310	35
	48312	39
	48313	38
	48314	23
Shelby Township/Utica	48315	28
Shelby Township/Utica	48316	31
Shelby Township/Utica	48317	49
<b>Total Count</b>		<b>1076</b>

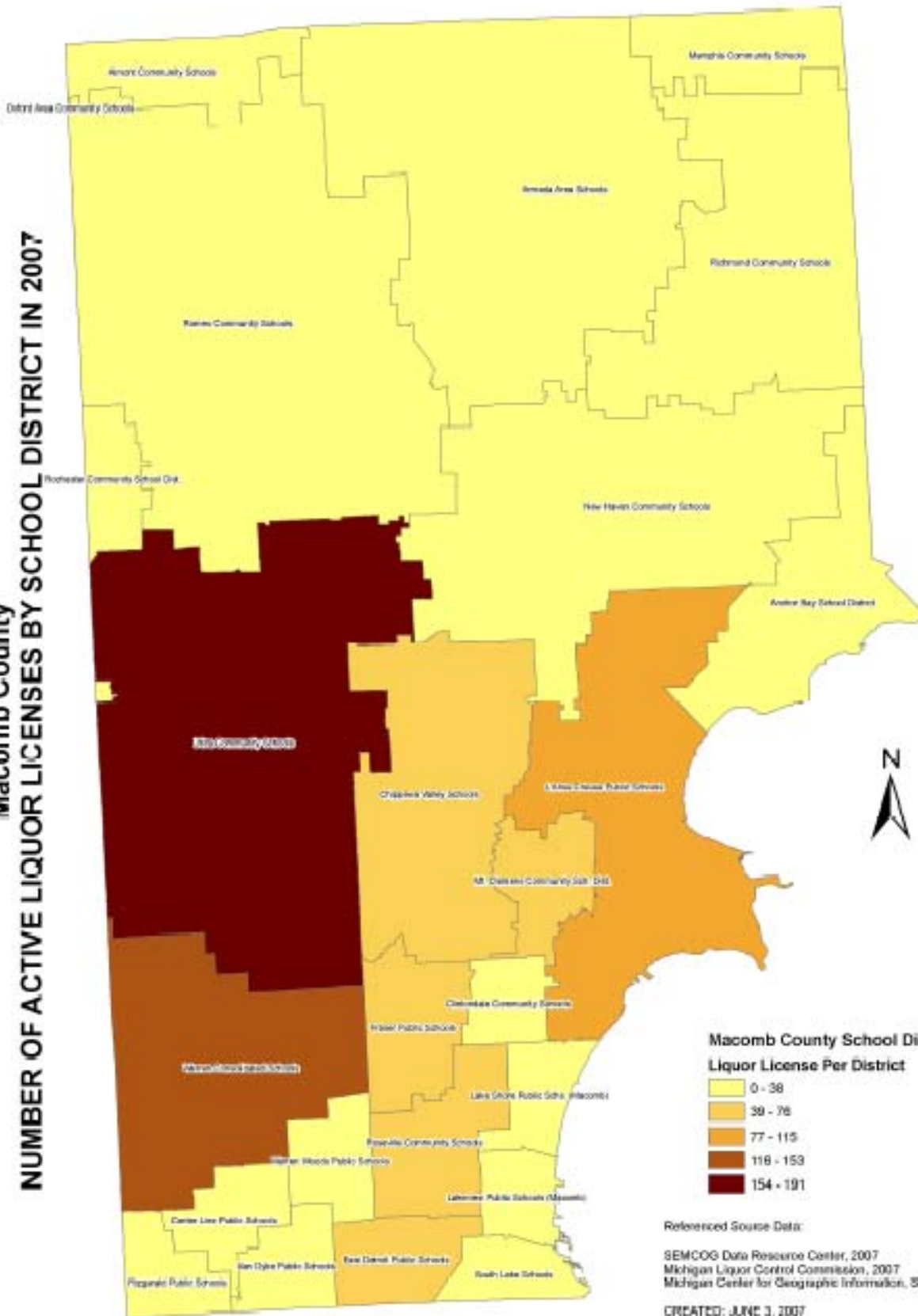
**Figure 11.**



**Table 2. Number of Liquor Licenses by School District, 2007**

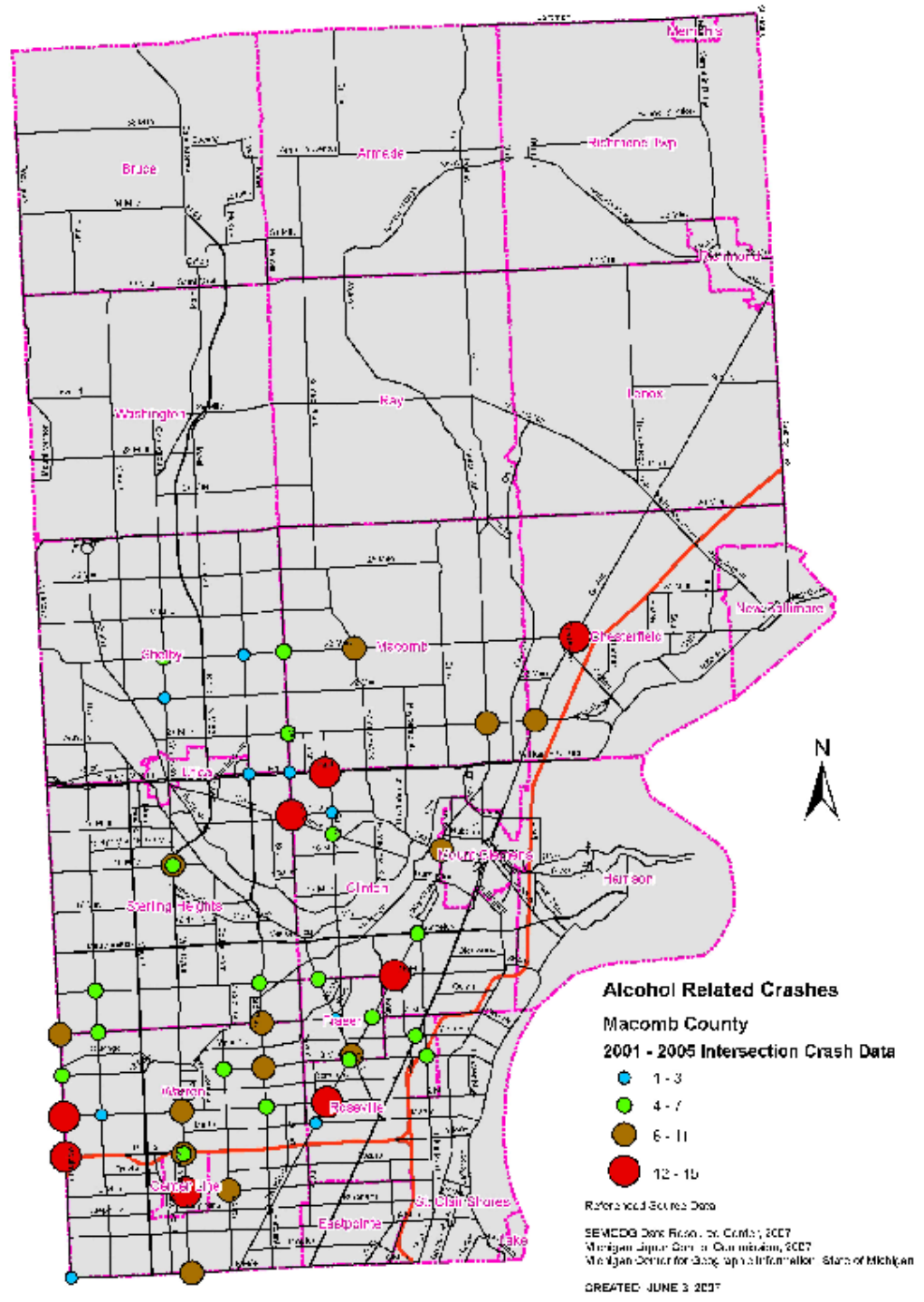
Almont Community Schools	1
Anchor Bay School District	29
Armada Area Schools	11
Center Line Public Schools	32
Chippewa Valley Schools	56
Clintondale Community Schools	21
East Detroit Public Schools	49
Fitzgerald Public Schools	28
Fraser Public Schools	41
Lake Shore Public Schs. (Macomb)	20
Lakeview Public Schools (Macomb)	32
L'Anse Creuse Public Schools	94
Memphis Community Schools	0
Mt. Clemens Community Sch. Dist.	52
New Haven Community Schools	14
Oxford Area Community Schools	0
Richmond Community Schools	13
Rochester Community School Dist.	0
Romeo Community Schools	32
Roseville Community Schools	75
South Lake Schools	32
Utica Community Schools	191
Van Dyke Public Schools	33
Warren Consolidated Schools	133
Warren Woods Public Schools	12

**Macomb County  
NUMBER OF ACTIVE LIQUOR LICENSES BY SCHOOL DISTRICT IN 2007**



County Rank	Regional Rank	<b>Table 3. Top 50 Intersection</b>	All Crashes 2000 - 2005	Alcohol Related Crashes 2000 - 2005
4	18	<a href="#">Dequindre Rd from 11 Mile Rd to 12 Mile Rd</a>	532	25
11	44	<a href="#">Van Dyke Ave from E 10 Mile Rd to E 11 Mile Rd</a>	408	25
31	121	<a href="#">Van Dyke Ave from 8 Mile Rd to 9 Mile Rd</a>	293	23
17	68	<a href="#">N Gratiot Ave from Hall Rd to 21 Mile Rd</a>	353	22
1	10	<a href="#">Hayes Rd from 19 Mile Rd to Hall Rd</a>	581	20
2	14	<a href="#">23 Mile Rd from Donner Rd to S Foster Rd</a>	546	20
43	152	<a href="#">23 Mile Rd from Baker Rd to Jefferson Ave</a>	270	19
9	36	<a href="#">Groesbeck Hwy from 15 Mile Rd to Metropolitan Pkwy</a>	444	18
7	30	<a href="#">Hall Rd from Schoenherr Rd to Hayes Rd</a>	468	17
8	33	<a href="#">Gratiot Ave from 23 Mile Rd to 26 Mile Rd</a>	457	16
4	18	<a href="#">Van Dyke Ave from Plumbrook Rd to 18 Mile Rd</a>	532	15
22	86	<a href="#">Van Dyke Ave from Van Dyke/ Chicago RAMP to 14 Mile Rd</a>	327	14
25	95	<a href="#">Harper Ave from E 8 Mile Rd to E 9 Mile Rd</a>	318	13
35	136	<a href="#">Dequindre Rd from 14 Mile Rd to 15 Mile Rd</a>	282	13
10	38	<a href="#">Dequindre Rd from 12 Mile Rd to 13 Mile Rd</a>	440	12
30	119	<a href="#">Gratiot Ave from Masonic Blvd to E 14 Mile Rd</a>	295	12
42	147	<a href="#">E 9 Mile Rd from Gratiot Ave to Kelly Rd</a>	275	12
33	125	<a href="#">Gratiot Ave from E 11 Mile Rd to Martin Rd</a>	290	11
6	20	<a href="#">Van Dyke Rd from 29 Mile Rd to W Saint Clair St</a>	531	10
24	91	<a href="#">Garfield Rd from 19 Mile Rd to Hall Rd</a>	322	10
27	98	<a href="#">14 Mile Rd from Ryan Rd to Dequindre Rd</a>	316	10
31	121	<a href="#">Hall Rd from Van Dyke Ave to Hall/ S M 53 RAMP</a>	293	10
35	136	<a href="#">Hall Rd from Hayes Rd to Garfield Rd</a>	282	10
46	184	<a href="#">Van Dyke Ave from W 14 Mile/N M 53 RAMP to Van Dyke Ave</a>	253	10
14	56	<a href="#">Hayes Rd from Hall Rd to 21 Mile Rd</a>	379	9
38	142	<a href="#">E 12 Mile Rd from John R Rd to Dequindre Rd</a>	278	9
40	145	<a href="#">Hall Rd from Van Dyke Ave to S M 53/ Hall RAMP</a>	277	9
28	100	<a href="#">8 Mile Rd from Dequindre St to Ryan Rd</a>	315	8
37	141	<a href="#">Garfield Rd from 17 Mile Rd to 18 Mile Rd</a>	279	8
44	159	<a href="#">Groesbeck Hwy from Martin Rd to 12 Mile Rd</a>	266	8
45	167	<a href="#">23 Mile Rd from Hayes Rd to Romeo Plank Rd</a>	261	8
47	186	<a href="#">Hall Rd from Romeo Plank Rd to Heydenreich Rd</a>	252	8
48	196	<a href="#">Ryan Rd from 12 Mile Rd to 13 Mile Rd</a>	248	8
20	81	<a href="#">Hall Rd from Garfield Rd to Romeo Plank Rd</a>	335	7
26	97	<a href="#">Hall Rd from Hayes Rd to Tilch Rd</a>	317	7
38	142	<a href="#">Van Dyke Ave from 23 Mile Rd to 24 Mile Rd</a>	278	7
49	199	<a href="#">Garfield Rd from 18 Mile Rd to Canal Rd</a>	247	7
12	45	<a href="#">Hall Rd from Northpointe Blvd to Schoenherr Rd</a>	405	6
16	60	<a href="#">Gratiot Ave from Frazho Rd to E 11 Mile Rd</a>	369	6
21	84	<a href="#">Van Dyke Ave from 22 Mile Rd to 23 Mile Rd</a>	331	6
3	16	<a href="#">Hall Rd from Schoenherr Rd to Hayes Rd</a>	534	5
13	52	<a href="#">23 Mile Rd from Gratiot Ave to 23 Mile/ W I 94 RAMP</a>	391	5
15	57	<a href="#">Van Dyke Ave from 11 Mile Rd to Martin Rd</a>	378	5
34	128	<a href="#">Van Dyke Ave from 17 Mile Rd to 18 Mile Rd</a>	287	5
41	146	<a href="#">Ryan Rd from 15 Mile Rd to Metropolitan Pkwy</a>	276	5
18	71	<a href="#">Schoenherr Rd from Canal Rd to Hall Rd</a>	346	4
19	77	<a href="#">12 Mile Rd from Dequindre Rd to Ryan Rd</a>	336	4
23	90	<a href="#">Van Dyke Ave from 21 Mile Rd to 22 Mile Rd</a>	323	4
29	104	<a href="#">Van Dyke Ave from Auburn Rd to 21 Mile Rd</a>	312	4
49	199	<a href="#">Schoenherr Rd from 15 Mile Rd to Schoenherr Rd</a>	247	3

**MACOMB COUNTY  
ALCOHOL RELATED TRAFFIC CRASHES BY TOP 50 INTERSECTIONS**



## **SECTION III – OTHER ALCOHOL CONSEQUENCE, TOBACCO AND OTHER DRUGS**

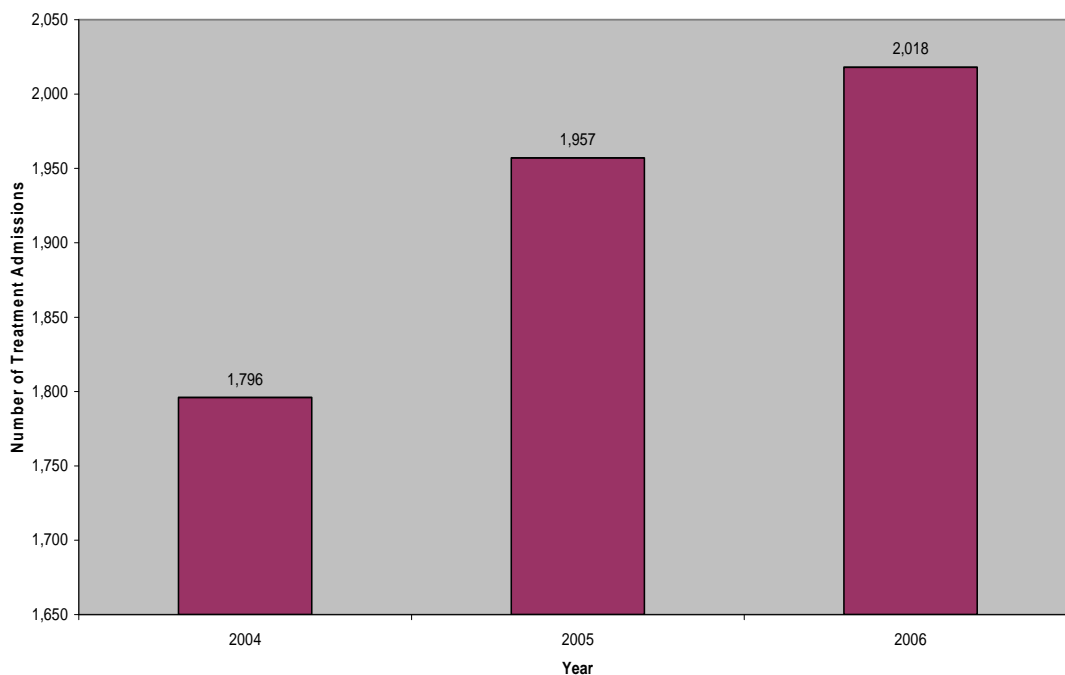
### **Alcohol Treatment**

Note: Treatment admissions data can be useful when assessing the burden of substance abuse morbidity on a community. Decision makers should however use caution when utilizing this type of data due to the tendency for shifts in the number of admissions to also reflect administrative and policy changes. Admissions are also limited by available resources. The Macomb County Office of Substance Abuse (MCOSA) has had to maintain extensive waiting lists for individuals seeking intensive levels of treatment in recent years. Treatment needs exceed capacity in the County, so the number of admissions understates the burden of substance abuse addiction for Macomb County.

Alcohol is the most common substance resulting in treatment admissions in Macomb County. **Figure 1** shows that since 2004, the number of alcohol treatment admissions has been on a steady increase. In 2006, there were 2,018 admissions, a rate of 24.8 admissions per 10,000 persons, for alcohol related problems in Macomb County's treatment facilities; an 11 percent increase in number of admissions since 2004.

**Figure 1**

**Macomb County: Number of Alcohol Treatment Admissions by Year (2004 -2006)**



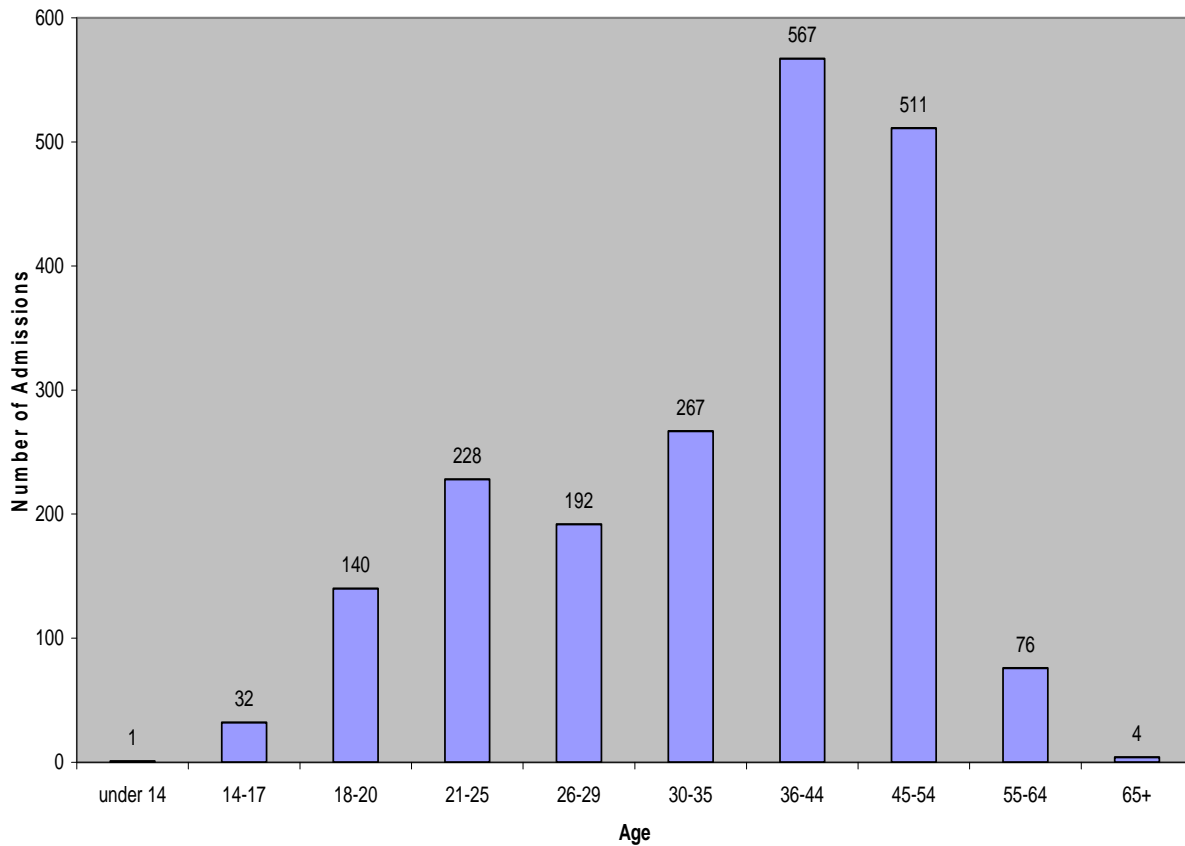
Data Source: Office of Drug Control Policy, Treatment Episode Data Set, 2004 - 2006

According to the 2006 Treatment Episode Data Set (TEDS) data, shown in **Figure 2**, persons between the ages 36 – 44 were admitted more frequently for alcohol treatment than other age groups at 567

admissions, followed by persons between the ages 45 – 54 with 511 admissions in 2006. The total number of persons between the ages 21-25 admitted for alcohol treatment in 2006 was 228. There were 173 persons under the legal drinking age admitted for treatment in 2006.

**Figure 2**

**Macomb County: Alcohol Treatment Episode Admissions by Age (2006)**  
Total Persons in Alcohol Treatment = 2,018





## Alcohol Liver Disease Deaths

**Table 4** shows Macomb County alcohol related liver disease deaths between the years 2000 – 2004. There were 187 deaths from alcohol liver disease in Macomb County.. Persons between the ages 45 – 54 had more death occurrences than any other age groups at a rate of 10.0 deaths per 100,000 persons (68 total deaths). There were 3 persons between the ages 25 – 34 who died from alcohol liver diseases. There were no deaths among underage drinkers from alcohol liver disease (CDC Wonder, 2000 – 2004).

**Table 4**

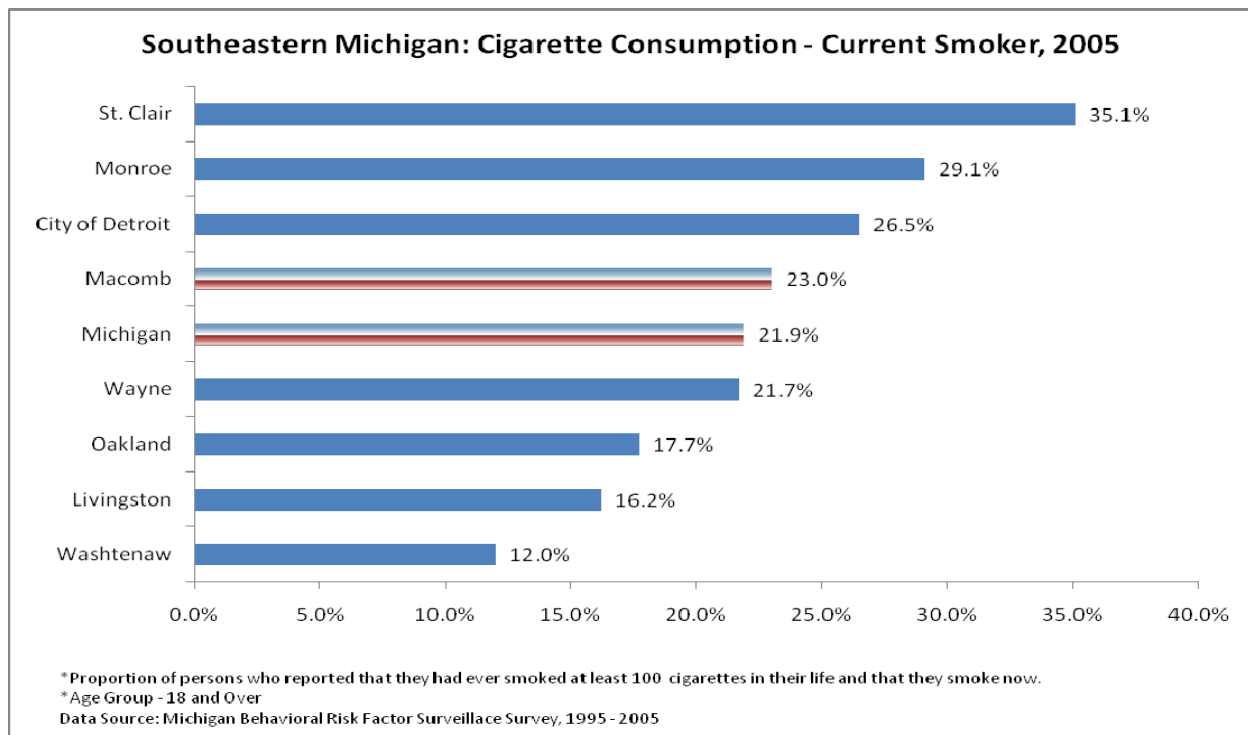
County	Age Group	Count	Population	Crude Rate Per 100,000
Macomb County	25-34 years	3	692,533	0.4 (Unreliable)
	35-44 years	48	792,679	6.1
	45-54 years	68	682,740	10.0
	55-64 years	38	459,400	8.3
	65-74 years	22	326,992	6.7
	75-84 years	5	244,807	2.0 (Unreliable)
	85+ years	3	80,924	3.7 (Unreliable)

## Tobacco

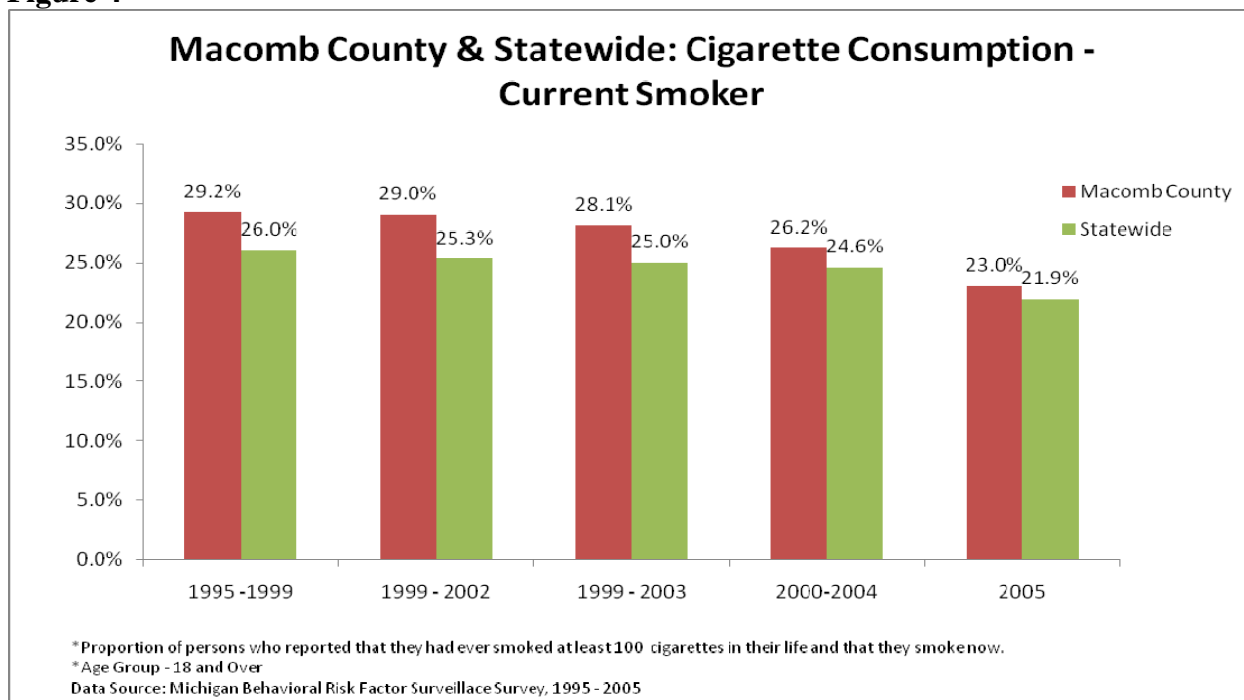
Trend data shows that cigarette consumption in Macomb has been on a steady decline since 1995 (**Figure 4**). However, trend data shows that the prevalence of cigarette consumption continues to be

consistently higher the statewide rate. **Figure 3** shows that Macomb in 2005 ranked fourth in Michigan in the percent of individuals who are current smokers. According the Michigan Behavioral Risk Factor Survey (BRFSS), 29.2% of Macomb residents reported smoking during the period of 1995-1999. In 2005, the prevalence rate had decreased significantly to a rate of twenty-three percent (23%), a twenty-one percent (21%) decrease. The statewide smoking rate in 2005 was 21.9%. **Figure 4** shows Macomb county cigarette smoking rates compared regionally and statewide (BRFSS, 2005). **Figure 5** shows current month cigarette use by age for Macomb and Michigan based on data for 1999 to 2001. The NSDUH data showed 14.7% percent of youths 12-17 reported past month cigarette use; statewide 15.3% of this age group reported past month use. Among persons 18-25 years old, 45.5% reported past month cigarette use compared to 44.2%, statewide; 27% of persons 26 or older in Macomb County reported past month cigarette use compared to 26.2% statewide. **Figure 6** displays NSDUH data on cigarette consumption by age group.

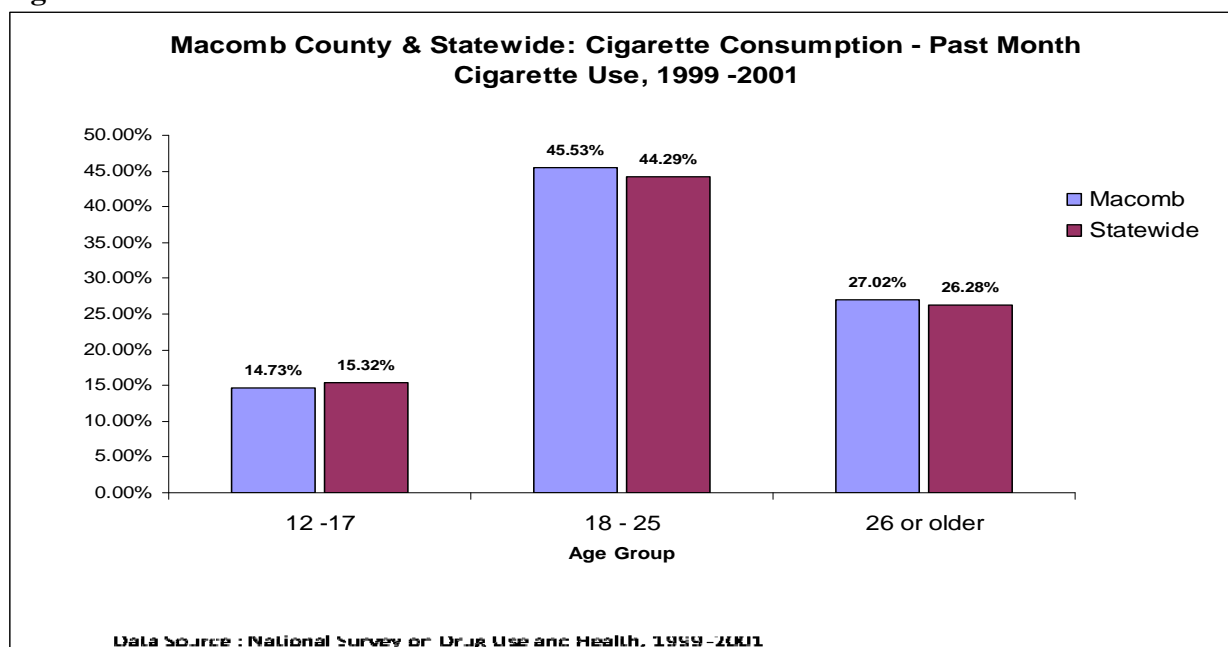
**Figure 3**



**Figure 4**



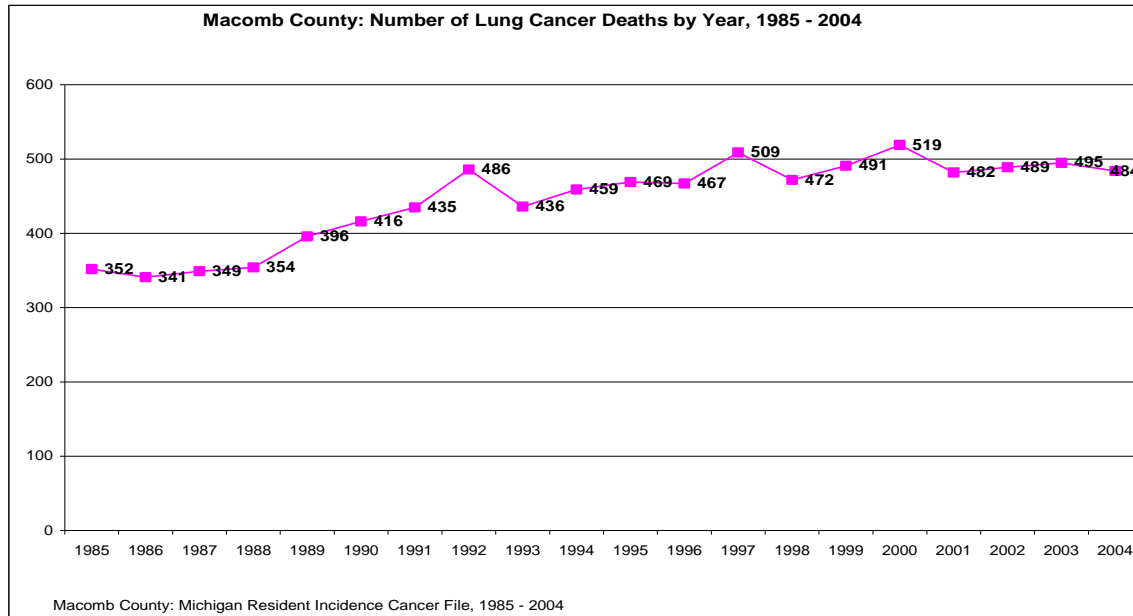
**Figure 5**



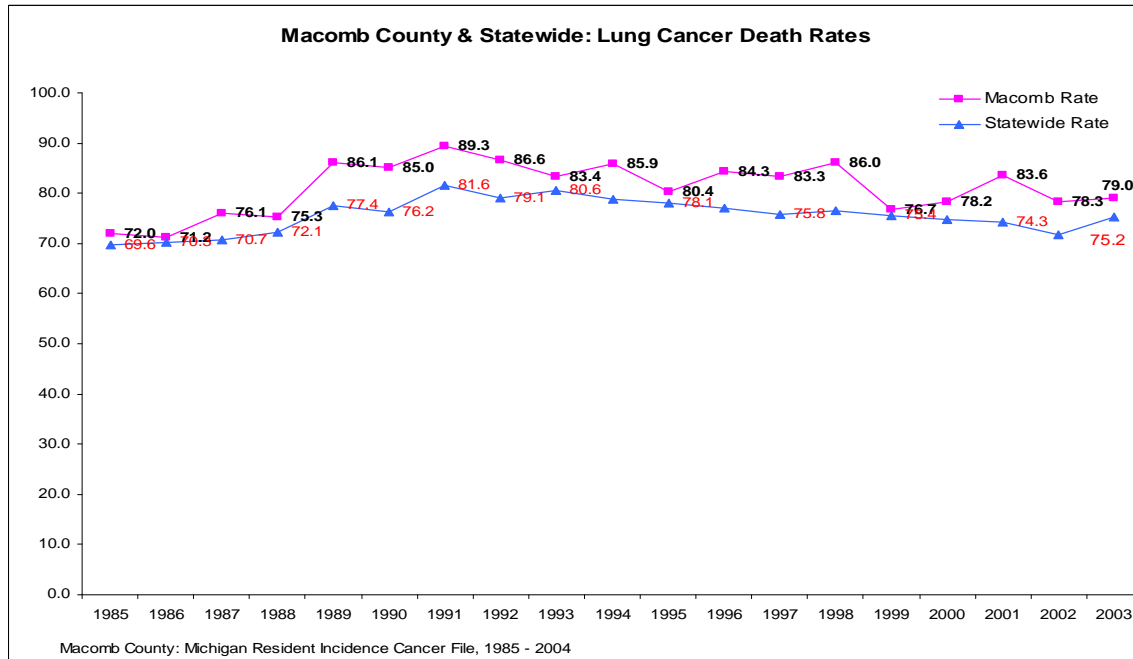
Lung cancer is the second leading cause of cancer morbidity and mortality behind prostate cancer and is useful when assessing the impact of cigarette consumption. Trend data from the Michigan Resident Incidence Cancer Files (1985 – 2004) shows that lung cancer death rates in Macomb County have

been unstable but remained consistently higher the state level rates over the past 20 years, correlating with consistently higher cigarette consumption rates. In 2003, the rate of lung cancer deaths was 79 per 100,000 population in Macomb County; the statewide lung cancer death rates was 75.2 per 100,000 population in 2003. **Figure 6** and **Figure 7** display 20 years trend data of lung cancer deaths in Macomb County.

**Figure 6**



**Figure 7**



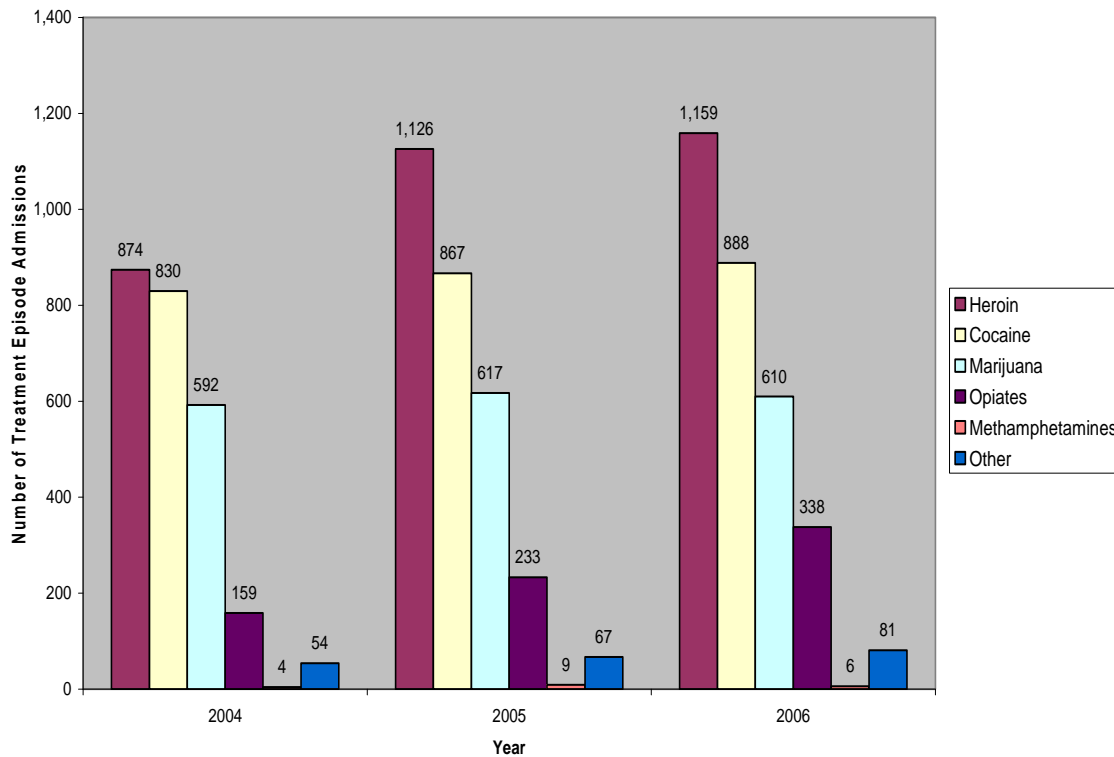
## Heroin

As **Figure 8** and **Figure 9** illustrate, in Macomb County there are more treatment admissions for heroin (38%) and cocaine (29%) dependency than all other (non-alcohol) drugs combined. When compared to all other drug types, treatment admissions for heroin use have been on a steady increase

from 2004 with a 24.6 percent increase. The data in **Figure 10** shows that persons between the ages 21-25 have been admitted for heroin treatment more often than other age group. Persons between the ages 30-35 and 36-44 are also admitted in high numbers for heroin treatment. In 2006, there were 120 persons between the ages 18-20 admitted for heroin treatment and 9 between the ages 14 – 17. During the same period, there were 338 cases admitted to treatment for use of other opiates; 11 percent of all admissions in 2006.

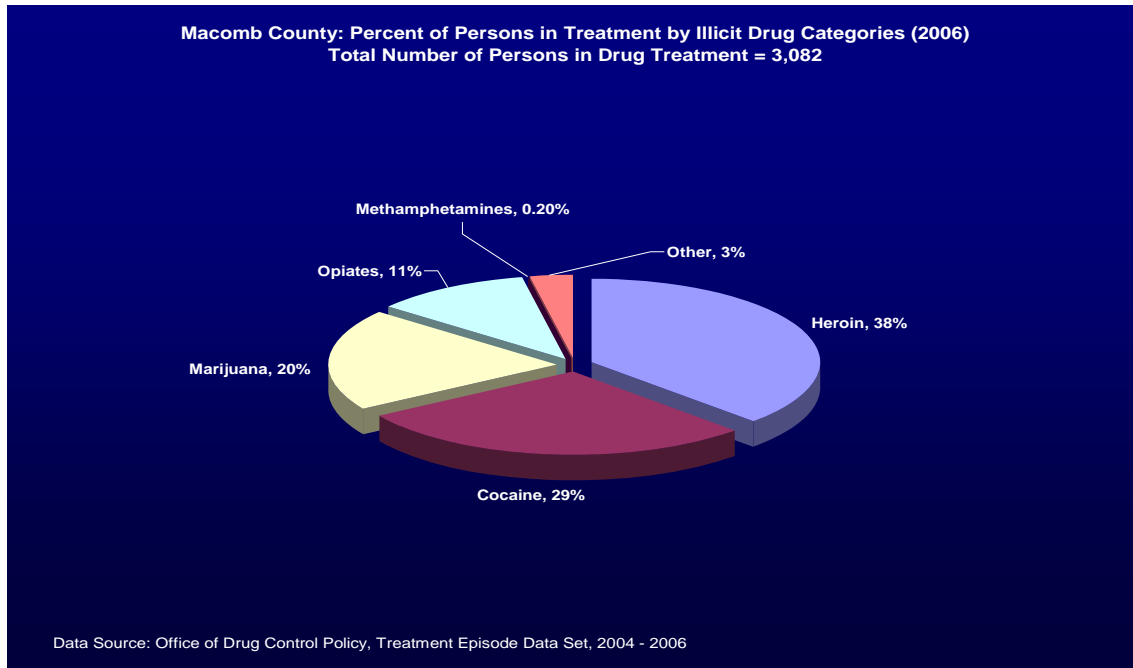
**Figure 8**

**Macomb County: Drug Treatment Admissions by Year (2004 - 2006)**

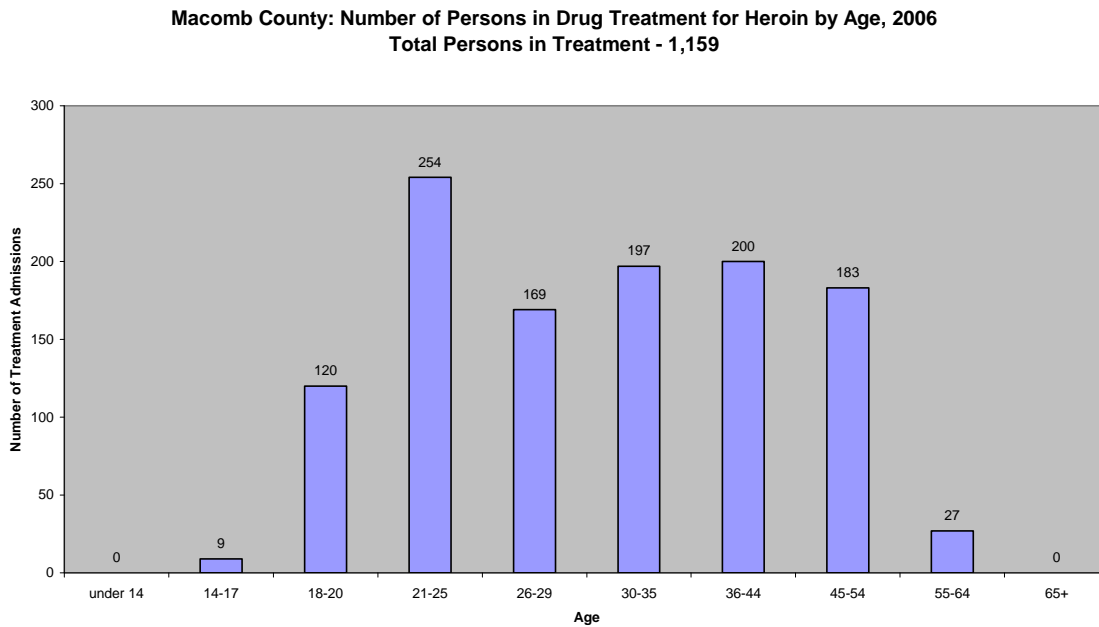


Data Source: Office of Drug Control Policy, Treatment Episode Data Set, 2004 - 2006

**Figure 9**



**Figure 10**



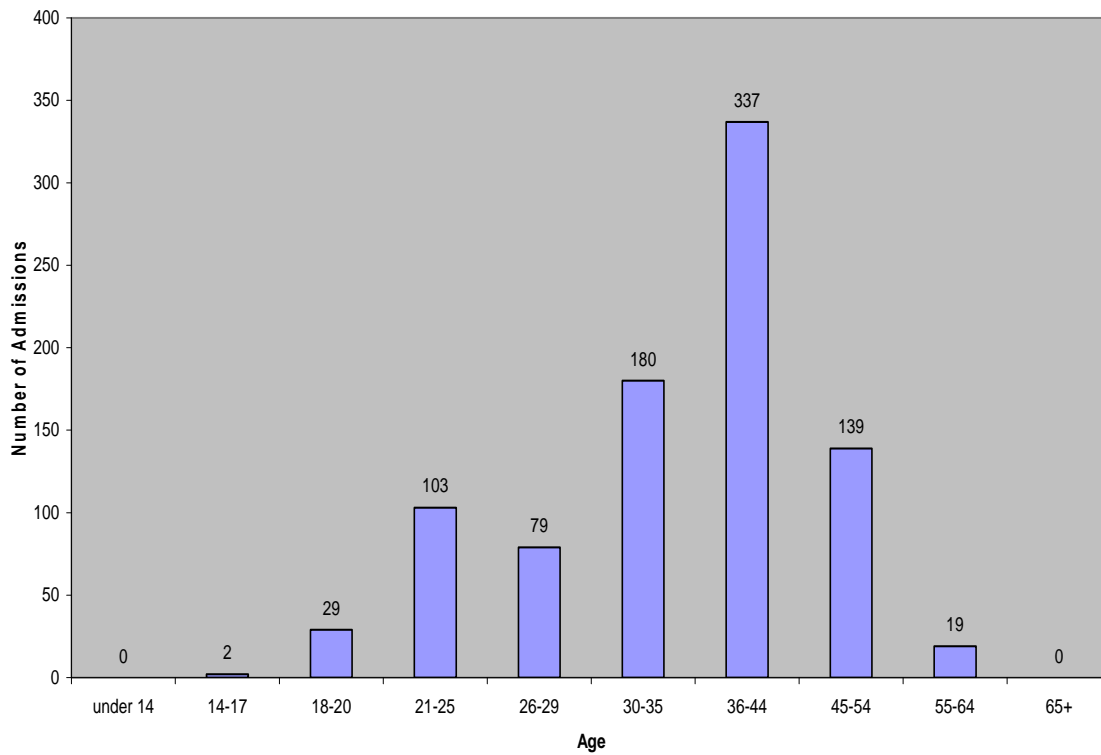
Data Source: Office of Drug Control Policy, Treatment Episode Data Set, 2004 - 2006

## Cocaine

Cocaine use is the second highest (non-alcohol) drug type for treatment admissions in Macomb County. In 2006, 29 percent of cases admitted for treatment were due to cocaine use and dependency. The number of admissions for cocaine use has increased slightly over the past 3 years, however not at the rate of heroin use. The age group more frequently admitted to cocaine treatment is persons 36-44 with 337 admissions in 2006. There were 103 persons between the ages 21-25 admitted to treatment in 2006. In addition, there were 31 persons under the age of 21 admitted to treatment for cocaine use in 2006.

**Figure 11**

**Macomb County: Number of Persons in Treatment for Cocaine Use by Age, 2006**  
Total Persons in Admissions - 888



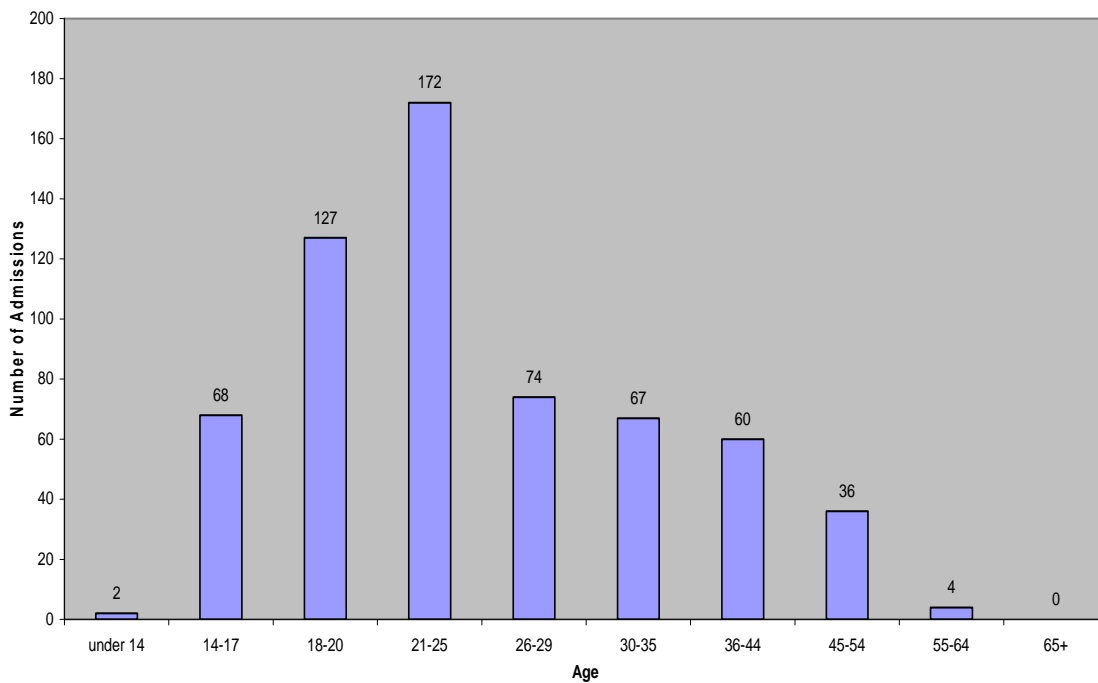
Data Source: Office of Drug Control Policy, Treatment Episode Data Set, 2004 - 2006

## Marijuana

In 2006, 20 percent (610 cases) of Macomb County's treatment admissions were due to marijuana use and dependency. Trend data shows that the number of treatment admissions for marijuana use has been unstable since 2004 and has decreased slightly since last year. **Figure 12** data shows that persons between the ages 14-20 had the highest number of admissions for marijuana with 197 admissions, a rate of 38 per 10,000 persons in 2006. There were 172 admissions among persons between the ages 21-25, a rate of 35.6 per 10,000 persons in 2006.

**Figure 12**

**Macomb County: Number of Persons in Marijuana Treatment, 2006**  
Total Admissions - 610



Data Source: Office of Drug Control Policy, Treatment Episode Data Set, 2004 - 2006

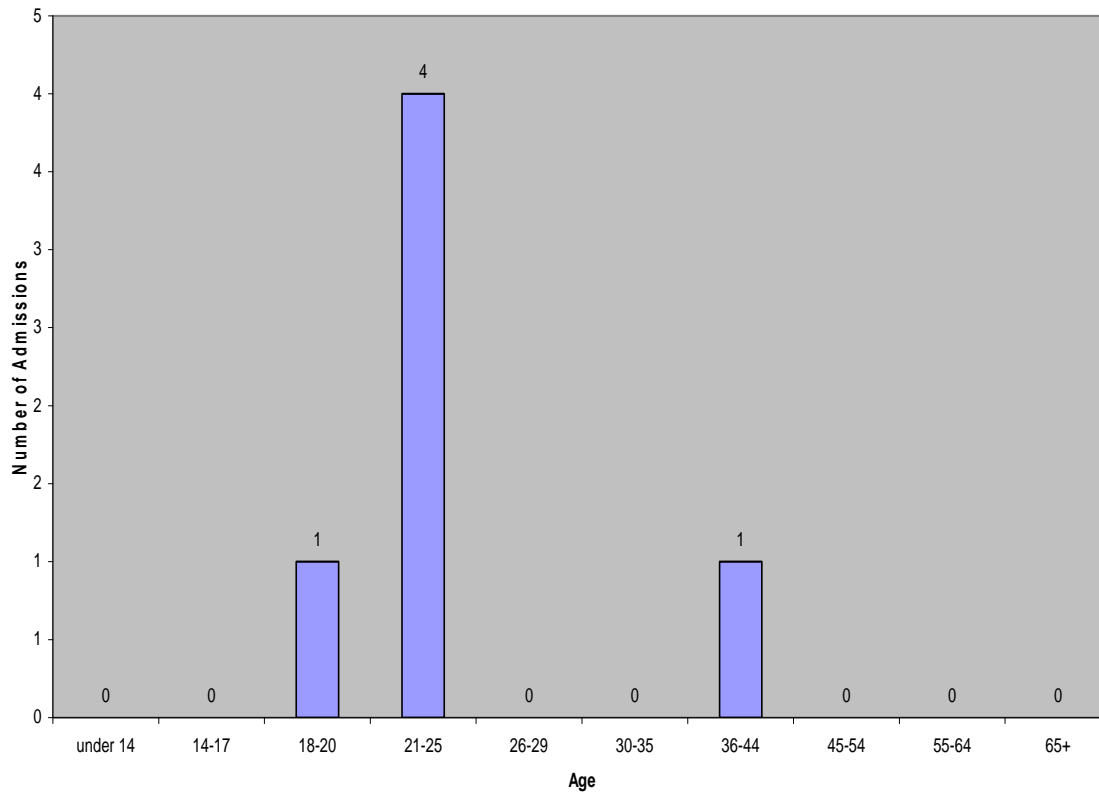


## Methamphetamine

In 2006, there were a total of 6 treatment admissions for methamphetamine use. **Figure 13** shows that four of those 6 cases were among persons between the ages 21-25. There was one admission for persons under 21 years.

**Figure 13**

**Macomb County: Number of Persons in Methamphetamine Treatment, 2006**

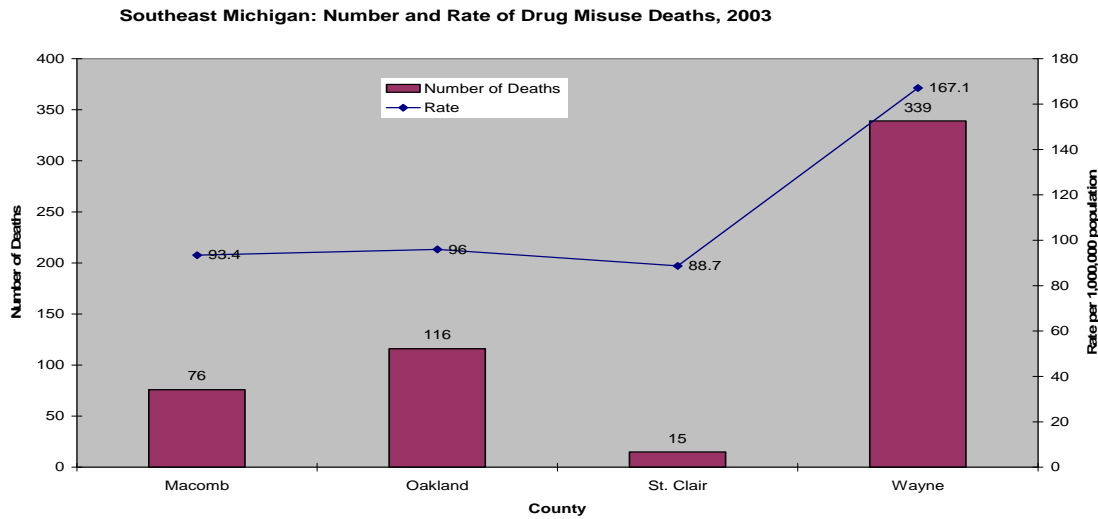


Data Source: Office of Drug Control Treatment Episode Admissions Data Sets, 2006

## Illicit Drug Deaths

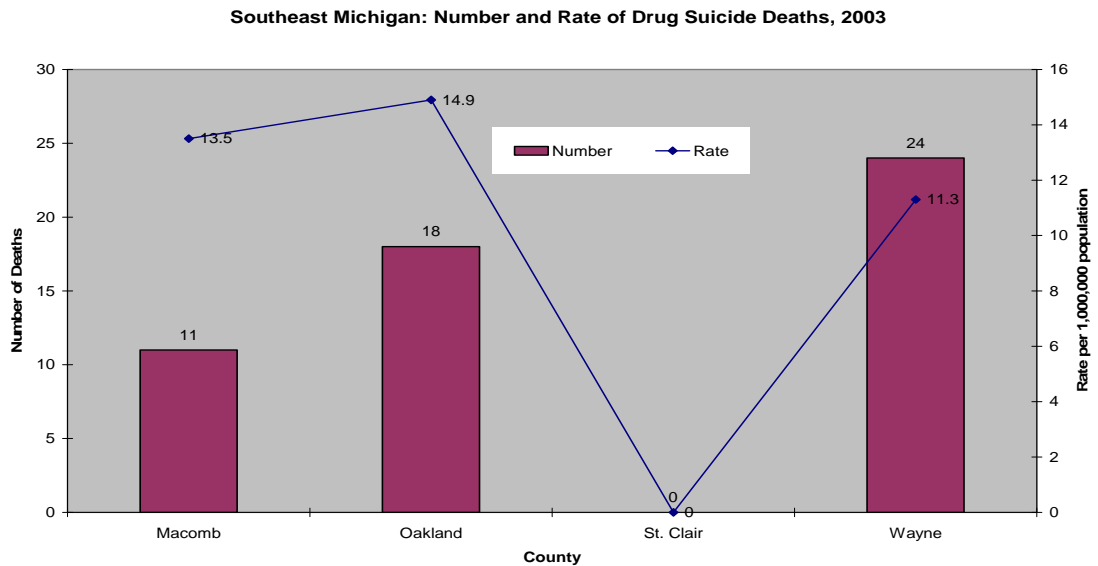
According to the 2003 Drug Abuse Warning Network Report (DAWN) illustrated in **Figure 14**, there were 76 deaths from drug misuse in Macomb County, a rate of 93.4 per 1,000,000 persons. **Figure 15** shows that there were a total of 11 (a rate 13.5 per 1,000,000 persons) suicide deaths in which illicit drugs were used.

**Figure 14**



Data Source: Drug Abuse Warning Network, 2003

**Figure 15**

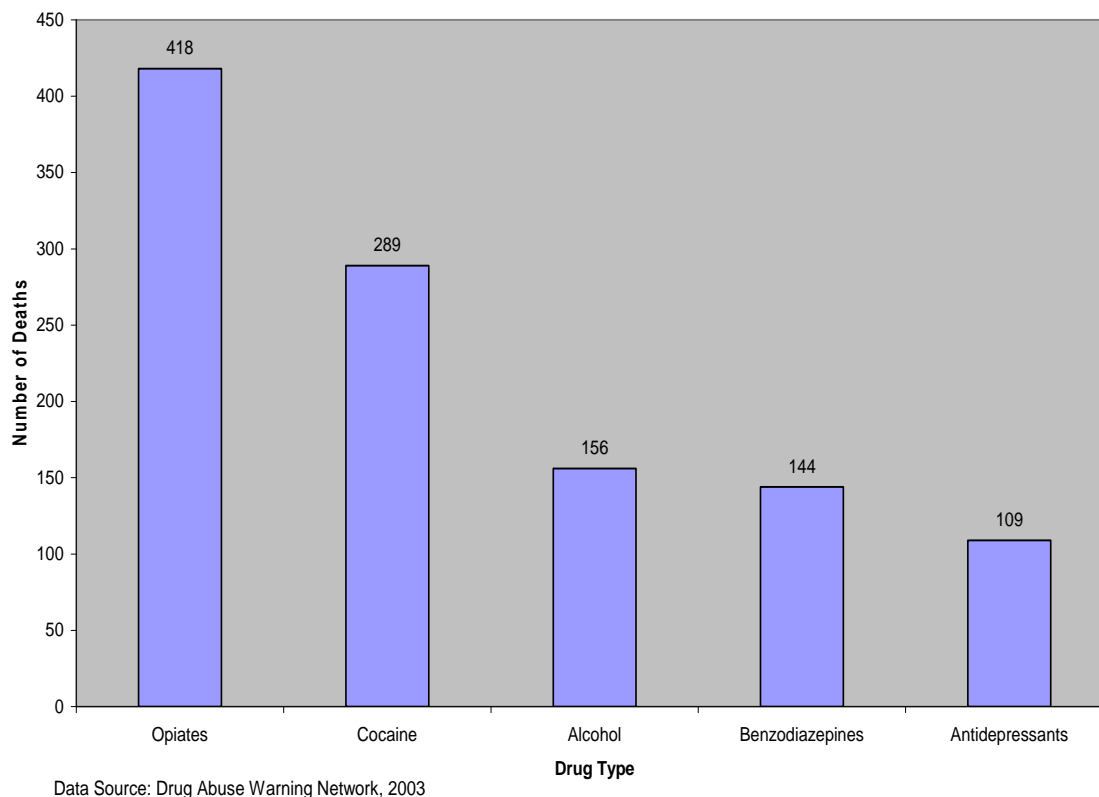


Data Source: Drug Abuse Warning Network, 2003

DAWN data is only available for the tri metropolitan areas of Detroit –Warren –Livonia for lower level analysis. Using this data stratified by drug type (**Figure 16**) shows that opiate use resulted in more deaths (418) from drug misuse in the tri metro areas than any other drug type. Cocaine resulted in the second most drug misuse deaths (289) and alcohol resulted in 156 deaths. Prescription drugs such as anti-anxiety and antidepressants resulted in the fourth (144) and fifth (109) highest drug misuse deaths.

**Figure 16**

**Detroit-Warren-Livonia: Top 5 drugs involved in Drug Misuse Deaths, 2003**

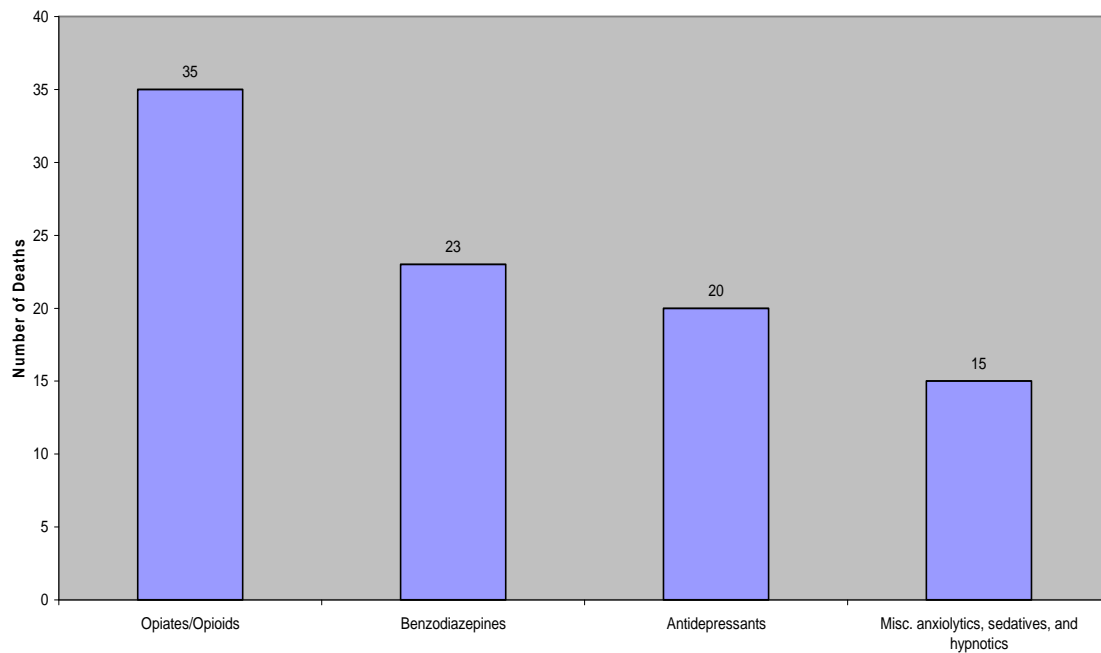


## Drugs and Suicide

As shown in **Figure 17**, use of opiates also accounted for the highest number of deaths for drug - involved suicidal deaths in 2003 in the tri metro areas. Benzodiazepines resulted in 23 deaths, the second highest number of deaths by drug type, and antidepressants were involved in 20 suicidal deaths in 2003 (DAWN, 2003). **Figures 18** and **19** show that drugs are listed as the fourth leading cause of suicide, although one can suspect that many other causes involve the use of alcohol and other drugs.

**Figure 17**

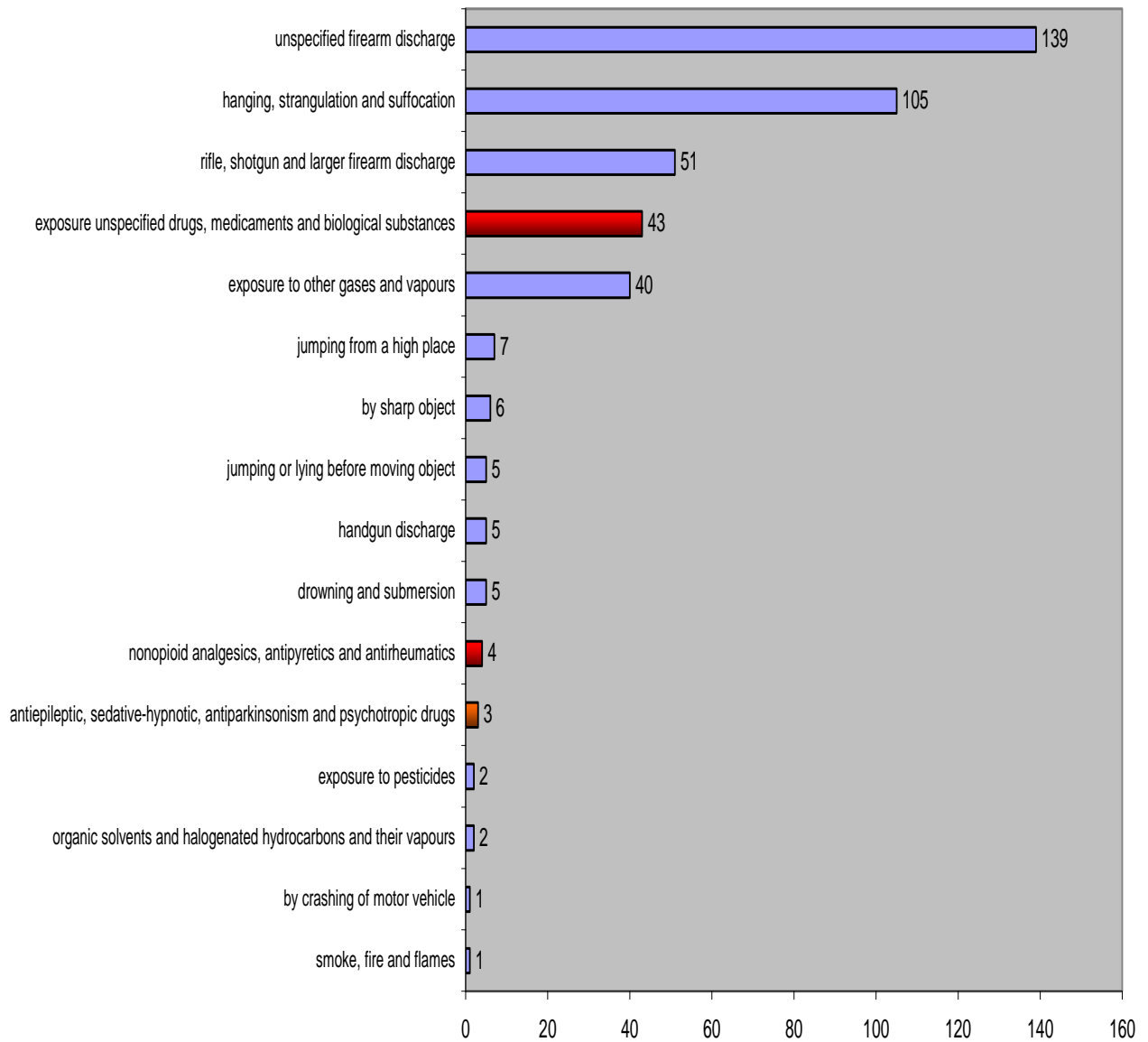
**Detroit-Warren-Livonia: Top 5 drugs involved in Suicide Deaths, 2003**



Data Source: Drug Abuse Warning Network, 2003

Figure 18

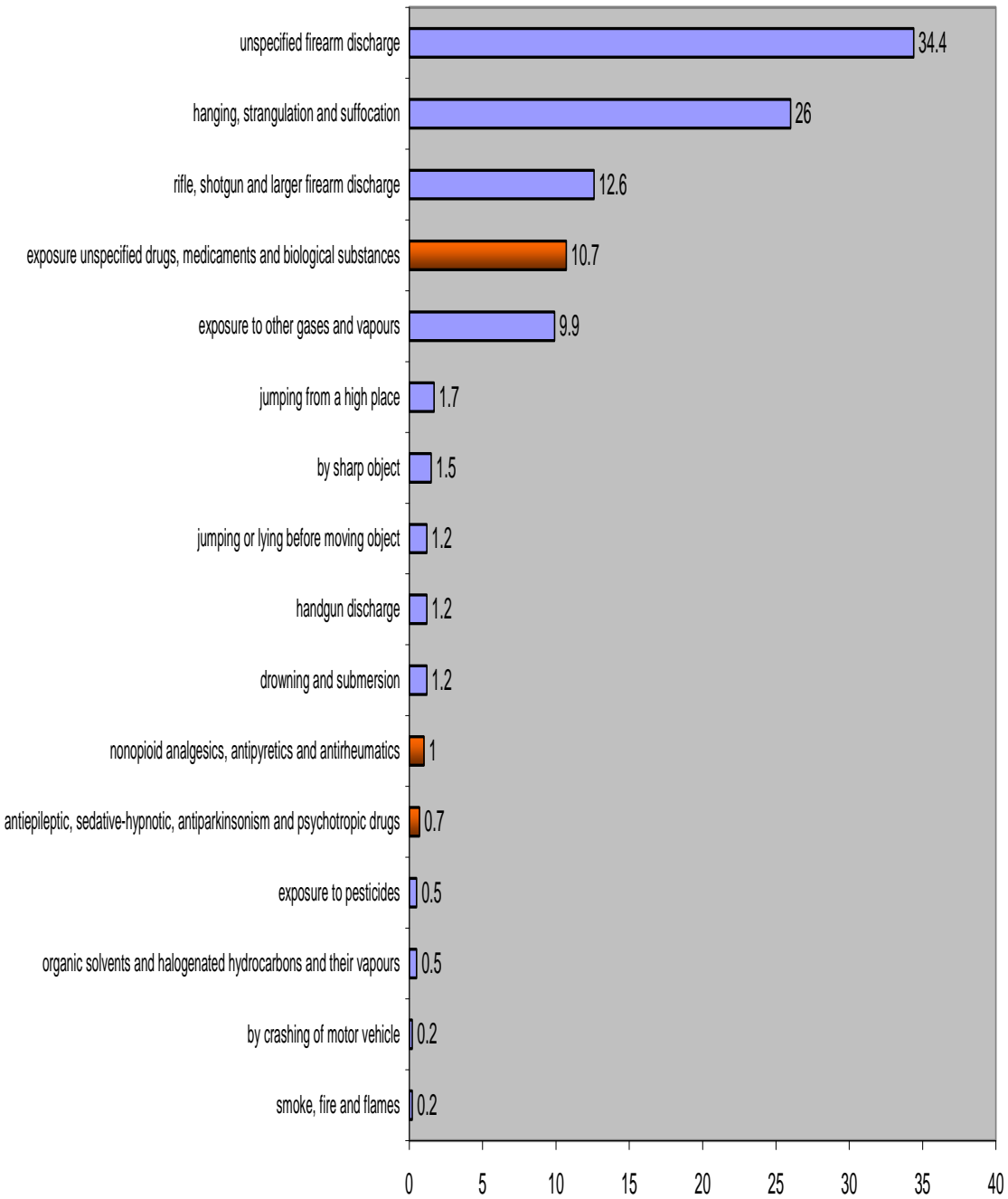
Macomb County: Number of Suicide Deaths by All Causes, 2000 - 2004



Data Source: CDC Wonder, 2000-2004

Figure 19

Macomb County: Rate of Suicide Deaths By All Causes, 2000 -2004



Data Source: CDC Wonder, 2000-2004