

Macomb County Office of Substance Abuse - MCOSA

Executive Summary

This report marks the second data profile of alcohol and illicit drugs burden in Macomb County. The first report produced in 2007 detailed estimates related to alcohol related traffic crash deaths and underage drinking to allow for countywide strategic planning via the Strategic Prevention Framework State Incentive Grant (SPFSIG).

There is an emerging national trend in the increased use, misuse, and prescribing of opioid based pain relievers. There is also a statewide trend in the increased treatment admissions of heroin and other opioid involved illicit drugs. This 2010 data profile presents estimates on indicators related heroin and prescription pain reliever mortality (deaths), morbidity (hospitalizations), arrests, and illicit drugs consumption patterns in Macomb County for the period of 2004 to 2008. This report also provides an assessment of the 2007 SPFSIG goals to reduce alcohol related traffic crashes and underage drinking in Macomb. Key findings in this report include:

Opioids

- Opioid abuse poses the greatest drug-related threat to Macomb County. Opioid poisonings accounted for 59 percent of drug-related deaths in Macomb County in 2008. Between 2004 and 2008, there was a 102 percent increase in opioid poisoning deaths in the County.

Heroin

- Heroin deaths, hospitalizations, and treatment admissions rates are on an increasing trend. The County-wide heroin poisoning death rate was 6.26 per 100,000 population in 2008, a 200 percent increase from 2004 to 2008. In 2008, heroin accounted for 63 percent of the total opioid related poisoning deaths in the County.
- Heroin deaths and hospitalizations are higher among males (5.7 deaths per 100,000 population and 7.3 hospitalizations per 100,000 population) when compared to females (1.4 deaths per 100,000 population and 4.0 hospitalizations per 100,000 population).
- Persons aged 21-24 years had the highest heroin poisoning death rate at 8.97 per 100,000 population, followed by persons age 35-44 years at 6.01 per 100,000 population.

- Persons aged 15-24 years were hospitalized at a higher rate (14.5 hospitalizations per 100,000 population) compared to persons aged 25-44 years (9.1 hospitalizations per 100,000 population) and persons 45-65 years (4.6 hospitalizations per 100,000 population).
- The city of Warren had the highest number of heroin poisoning deaths (37 total deaths at 5.5 deaths per 100,000 population) during the period of 2004-2008. However, the city of Roseville had a higher death rate at 5.9 deaths per 100,000 population (14 total deaths) over the five year period. Warren and Roseville also experienced the highest hospitalization rates, 11.02 and 10.6, respectively.

Prescription Pain Relievers

- Prescription pain relievers accounted for 32 percent of the total opioid involved poisoning deaths in 2008. Prescription pain reliever death rates are however on a declining since 2006 while hospitalization rates are currently on an increasing trend.
- The 2008 deaths rate due to prescription pain reliever poisonings was 1.6 deaths per 100,000 population while the 2008 hospitalization rate was 16.3 hospitalizations per 100,000 population, a rate two times higher than the heroin hospitalization rate.
- Prescription drug pain reliever poisoning deaths were higher among males (2.8 deaths per 100,000 population) when compared to females (1.8 deaths 100,000 per population) however, hospitalizations were higher among females (7.9 hospitalizations per 100,000 population) when compared to males (6.42 hospitalizations per 100,000 population) for the five year period of 2004-2008.
- Mortality was highest among persons aged 35-44 years (4.75 deaths per 100,000 population), followed by persons aged 45-64 years (3.83 per 100,000 population) for the period of 2004 to 2008.
- Hospitalizations were highest among persons aged 45-64 years (12.0 per 100,000 populations), followed by persons 65 years and older (11.2 per 100,000) for the period of 2004 to 2008.
- For the period of 2004 to 2008, the city of Warren had the highest number of prescription pain reliever poisoning deaths (26 deaths, a rate of 3.9). However, the cities of Eastpointe had a higher death rate (5.49 deaths per 100,000 population), followed by

Roseville (5.09 deaths per 100,000 population) and Sterling Heights (4.88 deaths per 100,000 population).

Opioid Involved Treatment

- Macomb County ranked second among the regional agencies for the highest number of opioid involved treatment admissions.
- There was a 12.2 percent increase in opioid involved treatment admissions from 2008 (5,673 admissions) to 2009 (5,058 admissions).
- Of all admissions, heroin admissions were highest (36 percent), followed by alcohol abuse (31 percent); 11 percent of admissions were due to prescription pain relievers in 2009.
- A higher proportion of males (59.8 percent) were in treatment compared to females (42.2 percent) for opioid involved drug abuse in 2009.
- Persons aged 21-25 years accounted for the largest proportion (22.3 percent) of those in treatment for opioid involved drugs, followed by persons aged 26-29 years (16.4 percent).

Illicit Drugs Consumption

- Five (5) percent of youth aged 12-17 years reported current illicit drug use other than marijuana during the period 2004-2006, an 8.5 percent increase from the period of 1999-2002 in Macomb County (NSDUH).
- Illicit drug use was highest among persons aged 18-25 years (9.6 percent) compared to persons aged 12-17 years (5.0 percent) and person aged 26 and older (2.8 percent) in Macomb County for the period 2004-2008.
- Macomb County residents aged 18-25 years also presented higher current illicit drug use rates when compared Michigan (9.3 percent) and the U.S. (8.5 percent) rates for current use (NSDUH).
- Persons aged 18-25 years also reported higher rates of past year non-medical use of pain relievers (15.4 percent) when compared to persons aged 12-17 years (7.6 percent) and persons 26 and older (4.3 percent) for the period of 2004 -2006 (NSDUH). The rate

among this age group was higher in Macomb when compared to the U.S. (12.2 percent) and Michigan (13.9 percent).

- There was an increase in heroin use among Macomb high school students from 1.9 percent in 2007 to 3.4 percent in 2009 (YRBS). Macomb students also reported higher heroin use than the national rate (2.5 percent) but lower than Michigan's rate of five (5) percent.
- There was a decrease in current non-medical use of prescription pain relievers among Macomb students from the period of 2008 to 2010 (MiPHY).

Alcohol related Traffic Crash Fatalities

- Macomb County experienced a substantial reduction (71 percent) in alcohol related traffic crash fatalities and serious injuries when comparing the period of 2001-2005 (605 total fatalities or serious injuries, an average of 121 per year) to the period of 2006-2009 (139 total fatalities or serious injuries, an average of 35 fatalities or injuries per year).
- There was also a 12.5 percent reduction in the number of alcohol related traffic crashes between the two periods.

Driving Under the Influence Arrests

- DUI arrest is on a steady decline in Macomb County. Macomb experienced a 12.5 percent decrease in the number of arrests from the year 2005 to 2009 (Michigan Drunk Driving Audit).
- Persons aged 21-24 year are still at highest risk for DUI arrests. Between the year 2005 and 2006, there was a 10.6 percent decrease in number of arrest made to this age group.
- However, DUI arrests among underage persons aged 13-20 years increased by 29 percent from 308 total arrests in 2005 to 397 total arrest in 2006. More recent arrests data is needed to assess this indicator to date.

Alcohol Use Among Middle and High School Students

- According to the NSDUH Survey, current alcohol use among youth aged 12-17 years increased slightly when comparing the period of 1999-2001 (18.6 percent) to 2004-2006 (19.0 percent).

- More recent data from the YRBS and MiPHY surveys in 2010 showed that Macomb County students reported lower rates of current alcohol use (31.2 percent) when compared to the national rate of 41.8 percent and the Michigan rate of 37.0 percent.

Alcohol Use Among Persons 18-20 Years

- More detailed consumption data is needed to assess use among persons aged 18-20 years. NSDUH provides data on alcohol consumption for persons aged 18-25 years. The data shows higher current alcohol use among persons aged 18-25 years (71.6 percent) when compared to other age groups and when compared to Michigan and the national rates, 67.5 and 61.0 percent, respectively (2004-2006).
- Past month binge drinking was also higher among persons aged 18-25 years (49.4 percent) when compared to persons aged 26 or older (25.5 percent) and persons aged 12-17 (11.5 percent) in Macomb County. Binge drinking rates for Macomb residents of this age group were also higher when compared to Michigan (46.9 percent) and the U.S. (41.6 percent).

Data Gaps and Limitations

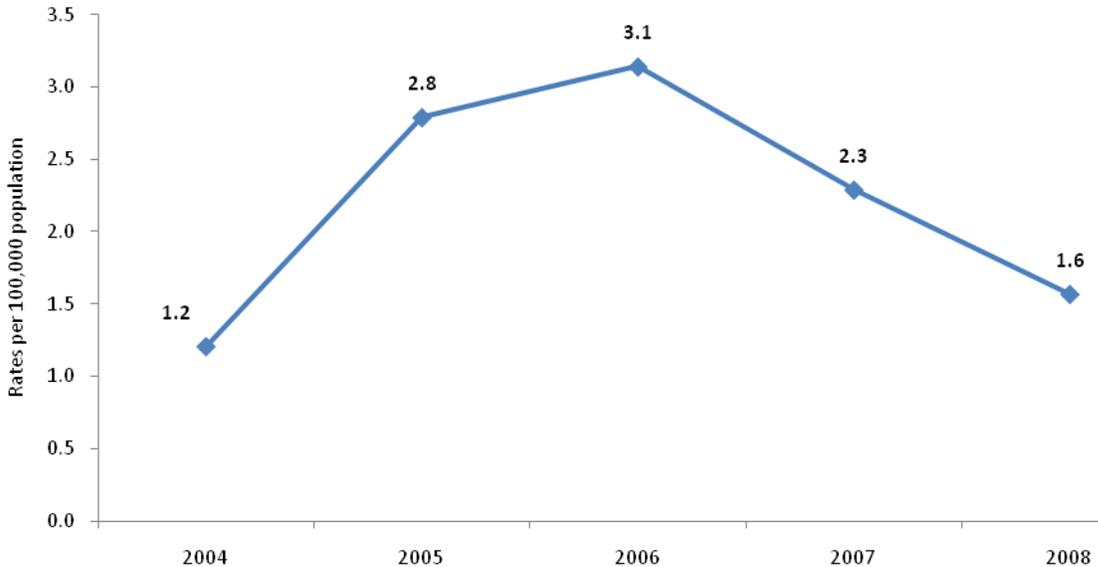
There were data gaps that limited evaluation of certain SPFSIG goals, specifically alcohol and illicit drugs consumption among persons aged 18-20 years. These were the data limitations identified in this assessment:

- Alcohol and illicit drugs consumption data are not available specifically for persons aged 18-20 years. Currently, NSDUH is the only source for information on these young adults; however NSDUH uses the age category of persons aged 18-25 years. As 21-25 year olds may have higher consumption rates than 18-20 year olds, use of the NSDUH estimates for the 18-25 year olds may overestimate true prevalence in the younger adults aged 21-25 years. NSDUH data is also outdated (2004-2006) which limits real time assessment of the consumption patterns within adult populations.
- More recent data is needed to assess narcotic and alcohol related arrests by age, gender and race. The most recent data made available is for the year 2006. Lack of current data on narcotic arrests limits the ability to assess changes that may have occurred to date.
- Findings from the Michigan Profile on Healthy Youth Survey (MiPHY) may be only representative of participating schools and may not be generalized to all public schools in the County. MiPHY does not randomly select schools for participation as the Youth Behavioral Risk Factor Survey (YRBS), but rather invite schools to voluntarily participate.

Convenient (Non-Probability) samples, such as MiPHY, are subject to self-selection bias; and findings from this type of survey may not represent schools that “opted out” of participating. Caution should be taken when generalizing these findings to entire populations.

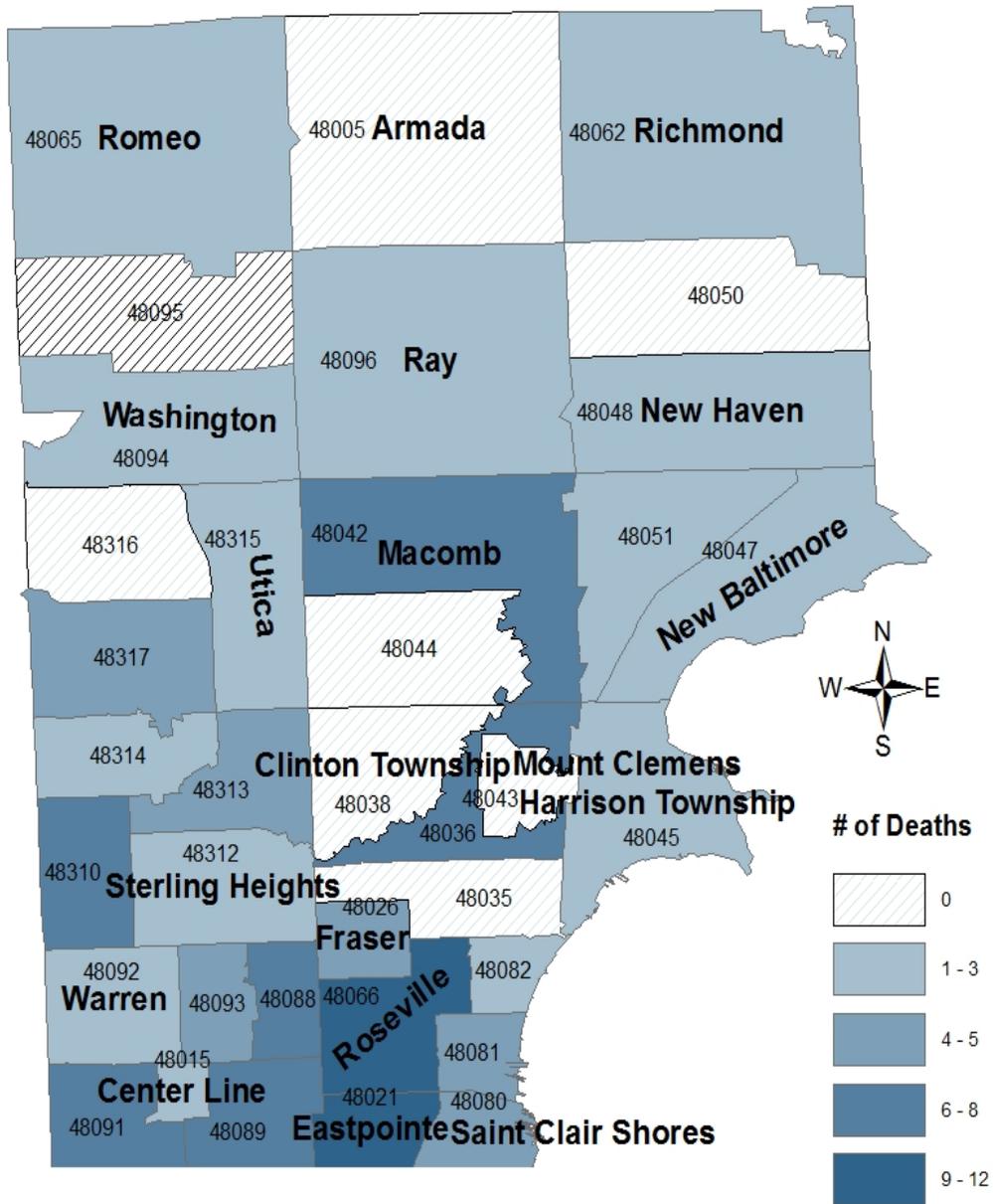
- Maps that indicate cause of death represent the zip code where the person resides.
- MDCH, Division of Vital Records and Statistics uses death certificates which captures “underlying cause of death” proximate cause of death for analysis. Poisoning death (ICD 10 codes, T40.0- T40.9) may not be captured as a drug death if it was listed as a poisoning.

Figure 7.
Macomb County
Prescription Drug related Deaths (Codeine, Morphine, Hydrocodone, Oxycodone, Meperidine)
Rate by Year, All Ages, Both Gender, Combined Years (2004-2008)



Note: Narcotic as the underlying and related causes of death
Deaths are due poisoning by prescription drugs (ICD-10 Codes T40.2, T40.4)
Source: Michigan Department of Community Health, Division of Vital Records and Health Statistics, 2008

**Figure 9.
Macomb County
Number of Prescription Drug Poisoning Deaths
by City and Zip Codes (2004 -2008)**



DATA SOURCES

Consequences: Alcohol and Illicit Drug Mortality, Hospitalizations and Treatment

- Michigan Department of Community Health, Division of Vital Statistics, County Death Files, 2004-2008
- Michigan Department of Community Health, Michigan Resident Inpatient Files, 2004-2008
- Michigan Department of Community Health, Bureau of Substance Abuse Services, Treatment Episode Admissions Data, 2008-2009
- Substance Abuse and Mental Health Administration, Drug Abuse Warning Network Report, Area Profiles of Drug-related Mortality, 2008

Alcohol and Narcotic Law Arrests

- Michigan State Police, Michigan Drunk Driving Audit, 2005-2009
- Michigan State Police, Uniformed Crime Reporting Program, 2005-2006

Alcohol Related Traffic Crashes

- Office of Highway Safety Planning, Michigan Traffic Crash Facts, 2003-2009
- Michigan State Police, Michigan Drunk Driving Audit, 2005-2009

Alcohol and Illicit Drug Consumption

- Office of Applied Studies. (2008). Sub-State estimates from the 1999-2002 and 2004-2006 National Surveys on Drug Use and Health. Rockville, MD: Substance Abuse and Mental Health Services Administration
- Michigan Department of Education, Michigan Profile on Healthy Youth, County Estimates, 2008 and 2010
- Centers for Disease Control, Youth Risk Behavioral Factor Survey, 2009
- Macomb Intermediary School Department, Youth Risk Behavioral Survey, 2003

Population Estimates

- The US Census Bureau, American Fact Finder Population Estimates, 2004-2009