

Macomb County Community Mental Health Annual Suicide Data Surveillance Report 2011

Prepared by

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Introduction

Historically, suicide data collection in Macomb County prior to the establishment of its Suicide Prevention Coalition in 2008, consisted mostly of annual tables from the Medical Examiner's Office that provided the number of suicides by month along with a series of age ranges. The suicide totals ranged from 54 to 87 each year during the period from 1980 to 2006. This represented only a proportion of the actual number of suicides for the following reasons:

1. When a death occurs due to a drug overdose or single car accident, it may not be labeled as a suicide unless a note was left by the victim.
2. Approximately fifteen percent of death certificates in Macomb County indicate the cause of death as "Indeterminate," which may sometimes mask an actual suicide.

Because of these variables and the inherent difficulties in verifying the lethal intent of the deceased, the American Association of Suicidology has stated that the number of reported suicides could be doubled or tripled to get a more realistic idea of how often suicides occur. This speculative multiplier may offer a rough guesstimate on the scope of the problem, but it is unhelpful in guiding the efforts of suicide prevention.

The purpose of this report is to establish a baseline of suicide data for Macomb County that would allow for an "apples-to-apples" comparison of suicide statistics over time. This will enable the Macomb County Suicide Prevention Coalition (MCSPC) to more clearly survey changes in rates and determine trends in order to better steer the activities of the Coalition. The goal is to have data which will help us to measure the efficacy of suicide prevention efforts as we strive to ultimately affect a significant reduction in the suicide rate.

Annual suicide data surveillance reports will be presented for review by coalition members at quarterly coalition meetings. The reports will also be made available to other interested stakeholders in the community.

Methods

Suicide statistics are continuously being collected by numerous agencies in Macomb County, including police departments, fire departments, hospitals, schools, mental health agencies, the Health Department, and the Crisis Center. The problem is that there is no standard data format, no central collection point, and no way to determine duplicate counts or cases that fall between the cracks. These segmented data sets are specific to the needs and interests of the specific

agencies and cannot be collated to give an accurate overall portrayal of suicide incidents in the county.

Completions: Death certificates, despite their shortcomings pertaining to suicide, provide the most complete, unduplicated, county-wide data for tracking suicide completions. At least by the fourth month following each calendar year, a team of 3-5 staff members and volunteers meet at the County Clerk's Office and review all the death certificates for that year. Tally sheets are used to extract selected demographic information from certificates that list Manner of Death as Suicide or as Accident by drug overdose. Since the county retains death certificates for all people who died within the county border, data is only drawn for those who both resided and died in the county. This raw data is then entered into a database (Microsoft Access) so that up to four chosen data elements can be correlated on a chart or graph for analysis.

During this past year the Coalition's data team was able to capture data from earlier years that now give us a five-year picture from 2005-2009. Unfortunately, access to 2010 death certificates was delayed due to some unresolved administrative paperwork required by the state; hence, complete data for that year will not be represented in this report.

Attempts: In 2010, there was a concerted effort to collect suicide attempt data by focusing on statistics recorded from all of the county's police departments. This would at least help capture all attempts that were serious enough to warrant police/medical intervention. A Sheriff's Deputy on the MCSPC took on the task of making contact with all police departments in the county. Although most departments shared their statistics, the varied formats used did not allow for a clean accumulation of county-wide data. For example, some police departments separated their totals of attempts and completion data while others combined the two numbers together. Consequently, we were only able to establish a Swiss cheese baseline of attempts from portions of the county. It is hoped that with improved police relations through the Crisis Center's LOSS Program (Local Outreach to Suicide Survivors) that we may ultimately be able to influence minor changes in police documentation.

Obstacles

When researching all potential sources for suicide data in the county, a number of obstacles arose:

1. Hospitals were resistant to provide suicide data, possibly because of a concern about how the information would be used and how it may affect their public reputation.

2. Data provided by the Medical Examiner's Office changed, in some cases, from year to year in the types of demographic information offered.
3. Aside from the lack of a standardized format to capture numbers of attempts from police data, their statistics do not summarize demographic information such as age, gender, and race. Some police chiefs have indicated an unwillingness to give officers more paperwork than they already have.
4. The Youth Behavioral Risk Survey sponsored through the Center of Disease Control could provide a significant portrait of youth suicide ideation and attempts, but its segment for suicide-related questions is optional. Many school districts in Macomb County choose to opt out of the suicide segment (which is combined with the sexual behavior segment) due to parental discomfort with these issues.
5. Similarly, the Michigan Profile for Healthy Youth (MiPHY) captures youth data regarding suicide ideation and attempts, but only 17% of the schools in Macomb County participated.
6. Some agencies offering suicide-related statistics from their programs are cooperative, but unskilled in collating, summarizing, and presenting the data with a clear meaning of what it represents.

Furthermore, processing the data from death certificates has its limitations:

1. It is not possible to determine which deaths listed as accidental drug overdose may have in fact been suicides. In 2010, there were 100 suicides and **153** accidental overdoses. If we only look at the deaths recorded as suicide, we may only be capturing a portion of the information. To cover bases, we are collecting data on both categories so that we can examine them separately or combined.
2. Usually it is April before we can review suicide data from the previous calendar year. This is due to limited staff resources and the fact that it may take as long as three months for some death certificates to be completed and filed. This time lag can hinder targeted efforts for prevention. Alternative methods for collecting death certificate information are being explored.
3. Some data elements are difficult to categorize because of individual differences in filling out death certificates. For example, the Education box may say "4 years of college" or "Bachelors Degree," which may or may not mean the same thing. The Race box varies as well, with some filers indicating "Hispanic" as a Race, while

others indicate “Hispanic” as an Ancestry. Additionally, some death certificates list every drug involved in an overdose, whereas others simply say, “Multiple Rx.”

Data Elements

For suicide completions and accidental overdoses, the following demographic data is being captured from death certificates for comparison across the years:

1. Age
2. Gender
3. Race / Ethnicity (White, Black, Asian, American Indian, Native Hawaiian, Hispanic, Multi-racial)
4. Place of Residence (City/Township, Zip Code)
5. Place of death (when not in home / public places)
6. Method / Means (including type of gun and type of drug)
7. Day of Week
8. Month of Death
9. Year of Death
10. Marital Status
11. Education
12. Veteran status (yes or no)

These data elements are listed into Microsoft Access for each suicide completion and accidental overdose, so that any two, three, or four elements can be viewed for analysis. For the sake of practicality, some data elements such as age and education are given sub-categories that are coded by selected age ranges or levels of education. With each data element being entered into its own field for every suicide completion, the number of chart combinations that can be instantly created are astronomical. For example, a graph can be constructed for the number of suicides of a given age range by month or for the number of suicides of white females who lived in Clinton Township showing the means used.

Furthermore, the collection of zip codes has allowed for the creation of zip code maps to give an at-a-glance depiction of where those who completed suicide resided or where firearms are most often used as means. Also, collecting the actual places of death has enabled us to begin to identify “hot spots” or public places where multiple suicides are occurring.

The Data

At this point the aforementioned death certificate data has been collected and inputted for the years 2005 through 2009. With the database populated, the groundwork has been laid for a myriad of statistical comparisons in the future. The graphs that follow represent a sample of what has been collected so far:

Chart 1
Number of Youth Suicides (Ages < 20) in Macomb County
1980 - 2010

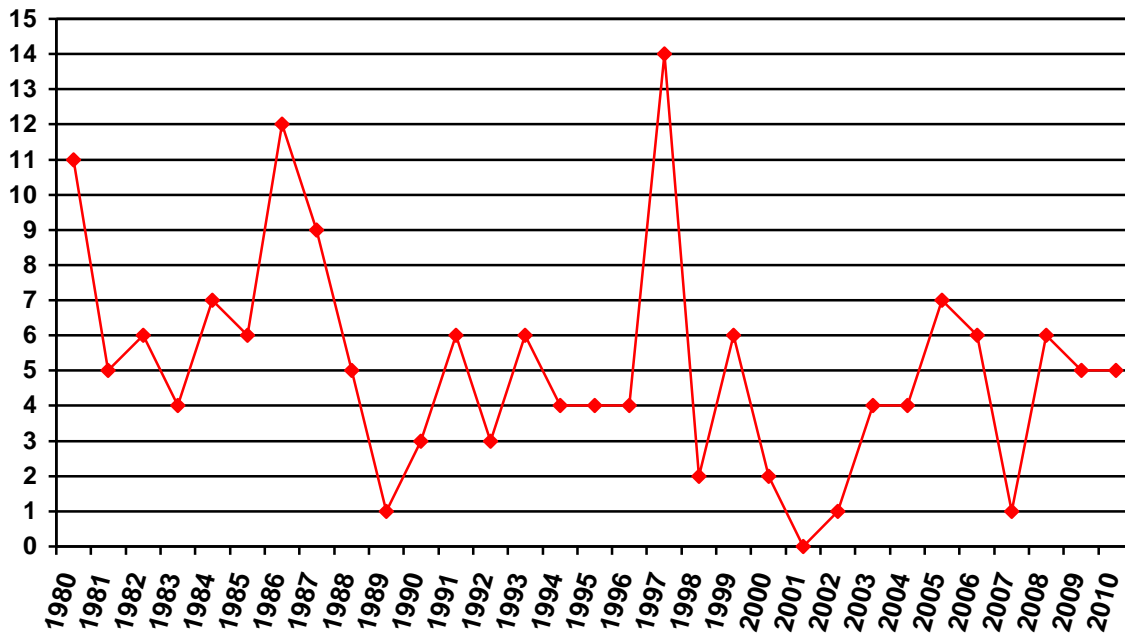


Chart 2
Comparison of Suicidal Means Utilized by Youth (Ages 10-24)
2005 - 2009

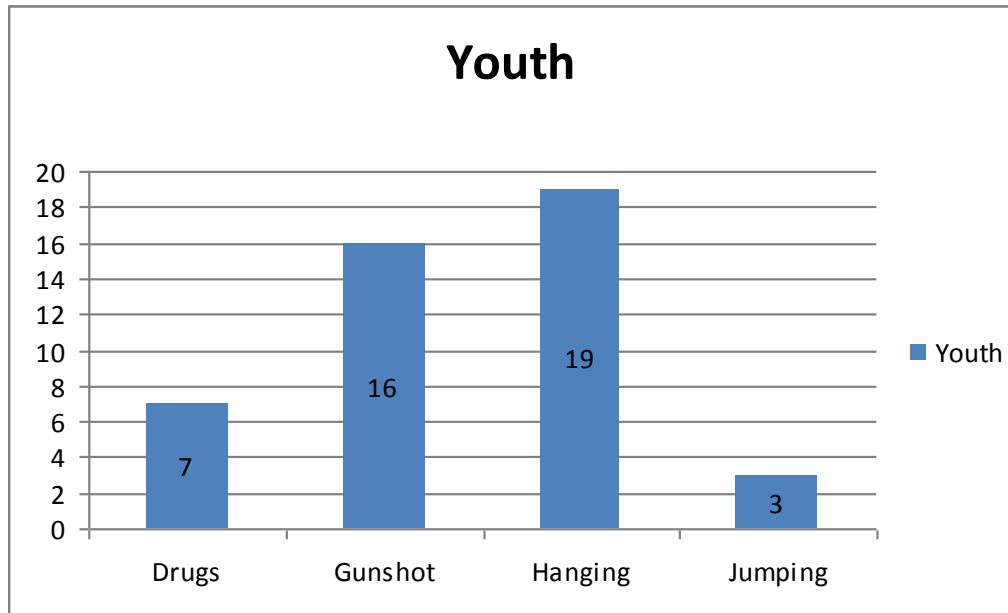


Chart 3
Number of Youth Suicides (Ages 10-24)
by Month of the Year
2005 - 2009

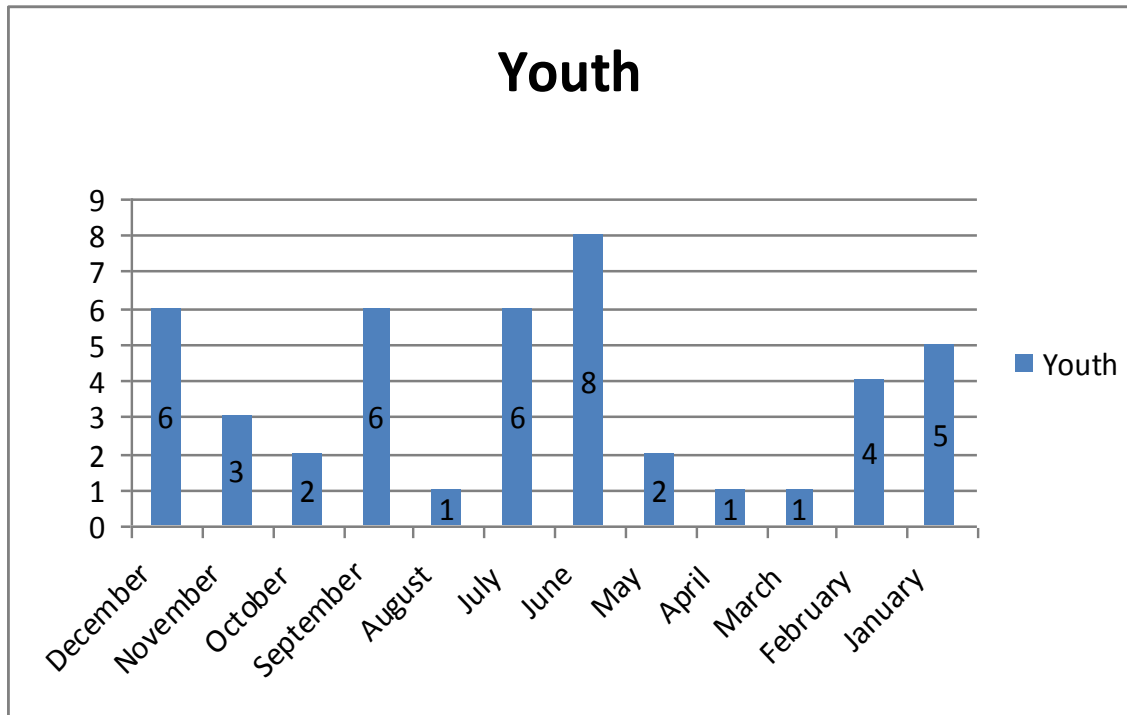


Chart 4
Number of Youth Suicides (Ages 10-24)
by Race and Gender
2005 - 2009

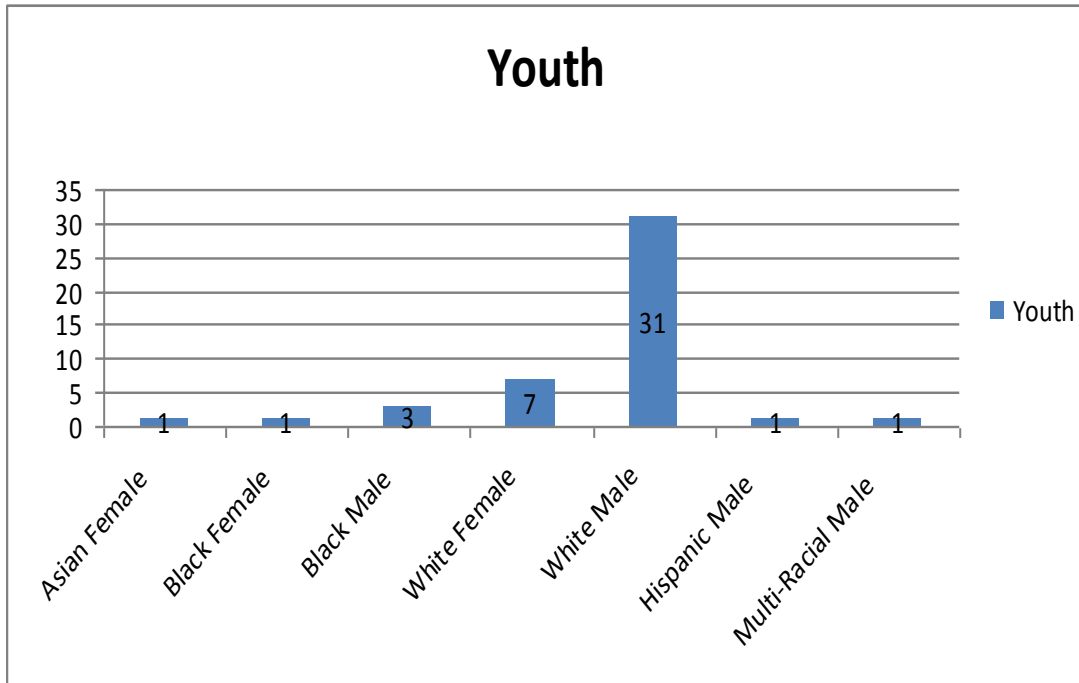


Chart 5
 Number of Youth Suicides (Ages 13-24)
 By Age and Year
 2005 - 2009

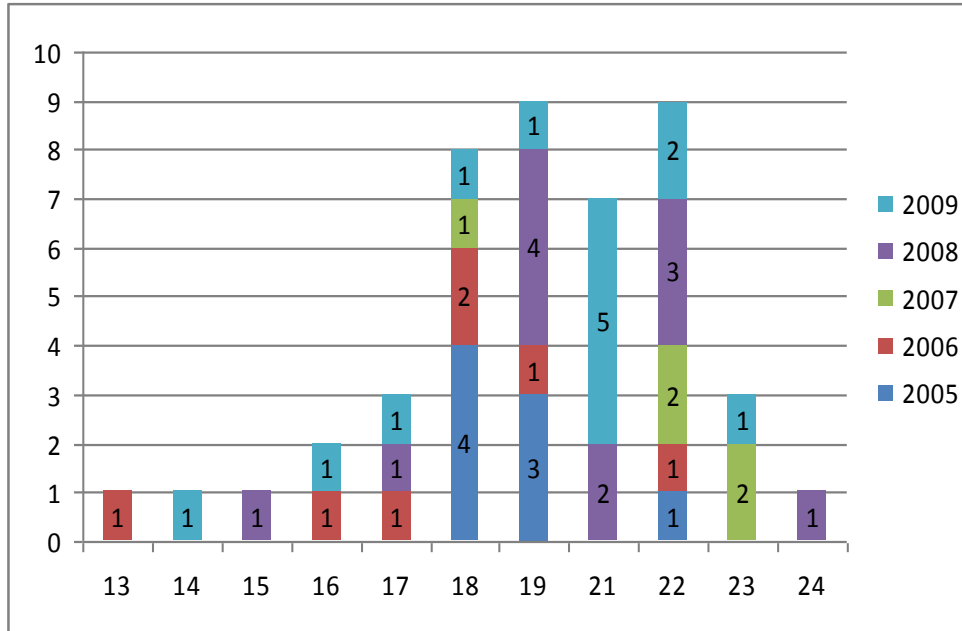


Chart 6
Number of Suicides (All Ages)
by Year
2005 - 2009

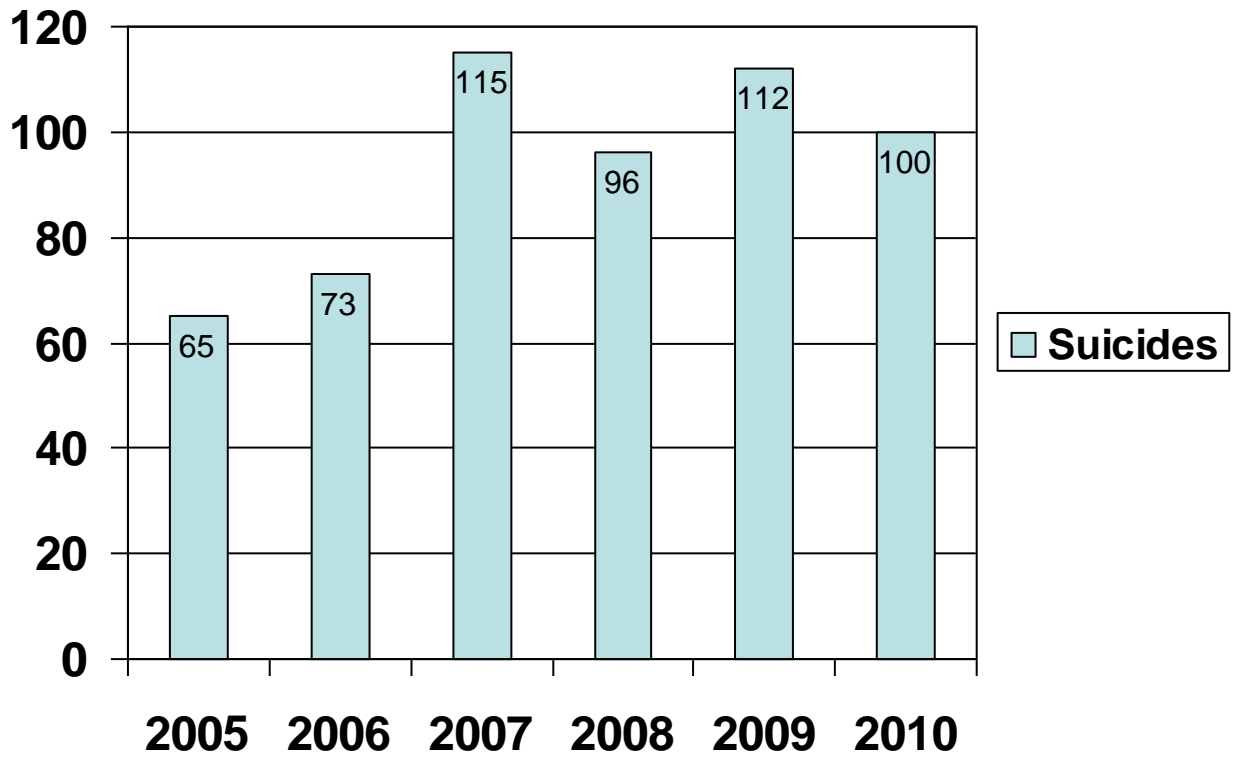
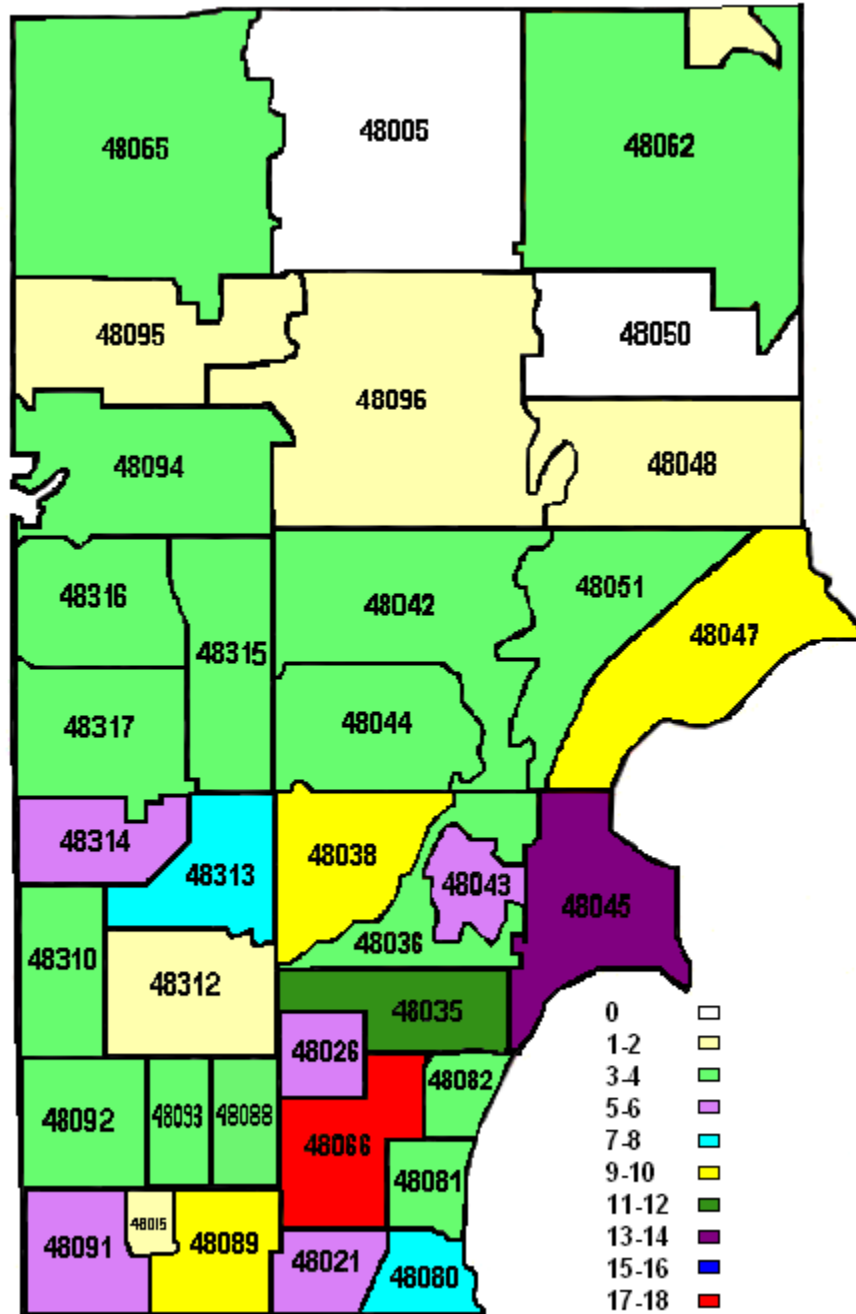


Chart 7
 Number of Total Suicides Using a Firearm
 by Residential Zip Code
 2005 – 2009



Discussion

The charts chosen for this report display a variety of ways to examine the data. The historical look at teen suicides in **Chart 1** reveals two spikes when suicide contagion effects were experienced in 1986 and 1997. **Chart 2** supports the connection between suicide and substance use. Although there are a relatively low number of confirmed suicides by drugs, the number of deaths due to accidental overdoses is significant. We will continue to track accidental overdoses knowing that the category may be masking unconfirmed suicides.

In **Chart 3**, which totals the number of youth suicides by month of the year over a 5 year period, the month of June with the greatest number of suicides seems less statistically significant than the fact that March, April, and August had the least number of suicides.

When considering the race and gender **Chart 4** reveals that for suicide completions white males outnumber white females by almost 4.5 to 1. **Chart 5** illustrates that *over a 5 year period* youth between the ages of 18 and 22 are at higher risk, but there is clearly no consistency from one year to the next. Considering the number of suicides over all ages in **Chart 6**, there has been an annual average of 93.5 over the past 6 years with roughly a 53% increase since 2007.

Lastly, **Chart 7** offers a geographic perspective on where in the county people of all ages are using firearms to complete suicide. It suggests that the use of guns is greater in the southern and eastern sides of the county. This may help us to better target the areas to continue the work of our Holding On To Life grant's means restriction training.

With each year added to the database we anticipate getting a richer and more reliable portrait of suicide activity. As more is learned we will be better able to fine tune the charts to guide the future prevention efforts of the Coalition. For example, we have noticed that motel suicides often occur in the next community from where the person lived. Asking desk clerks at lodging facilities to hand out a bookmark with the National Suicide Prevention Lifeline number to guests who live nearby may make a difference.

Sources

- American Association of Suicidology
- Macomb County Clerk's Office, Death Certificates
- Macomb County Office of the Medical Examiner, Annual Suicide Reports
- Centers for Disease Control, Youth Risk Behavior Survey
- Michigan Department of Education, Michigan Profile for Health Youth
- Police Department statistics from various municipalities and townships in Macomb County
- State of Michigan Bureau of Vital Statistics