Miami-Dade County Health Department
Office of Epidemiology and Disease Control

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Epi Monthly Report

Teen Suicide Ideation, Attempt and Completion in Miami-Dade County

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Background

According to a 2005 nationwide report from the Centers for Disease Control and Prevention (CDC), Hispanic teens are at the highest risk for suicide compared to other youths[1]. In 2005, suicide was the fourth leading cause of death for teens aged 10-19 in Miami-Dade County and the third in Florida and the US[2]. There are an estimated 8-25 attempted suicides for each teen suicide death[3, 4]. More females than males attempt suicide (Gender ratio 3:1)[5]. According to the 2,399 Miami-Dade County students surveyed in the 2004 CDC Youth Risk Behavior Surveillance System, 20% of all students had felt sad every day for 2 weeks or more in the past 12 months. Other results showed that 17% of Hispanic females had seriously considered suicide within the past 12 months and that 12% of all students who considered suicide had actually attempted. The objective of this study was to describe teen suicide in Miami-Dade County using four data sources, to illustrate demographic and seasonal factors associated with suicide among teens and to compare data among different race/ ethnicities.

Methods

Teens were defined as being between the ages of 10 to 19 years. SAS 9.1.3 was utilized for analysis. Data was extracted from four sources between 2005 and 2006. The first was suicide-related 911 calls reported to Miami-Dade Fire Rescue, the second was emergency department chief complaint data from the Electronic Surveillance System for the Early Notification of Community Based Epidemics (ESSENCE), the third was hospitalization admission data from the Agency for Health Care Association using ICD-9-CM codes in the principal diagnosis with the external-cause-of-injury codes (E-Code), and lastly, death data was obtained from the Florida Department of Health Office of Vital Statistics.

Results

911 Data

In 2006, there was a total of 622 suicide calls into the 911 Call Center, which was nearly twice the amount of calls as there were in 2005 (360 calls) (figure 1). Of the 622 calls, 104 (16.7%) were for teenagers. Approximately 62.5% of the teen calls were from females. For males and females, 61% and 92% of the calls were either for cutting or overdose, respectively.

FLORIDA DEPARTMENT OF HEALTH

Inside this issue:

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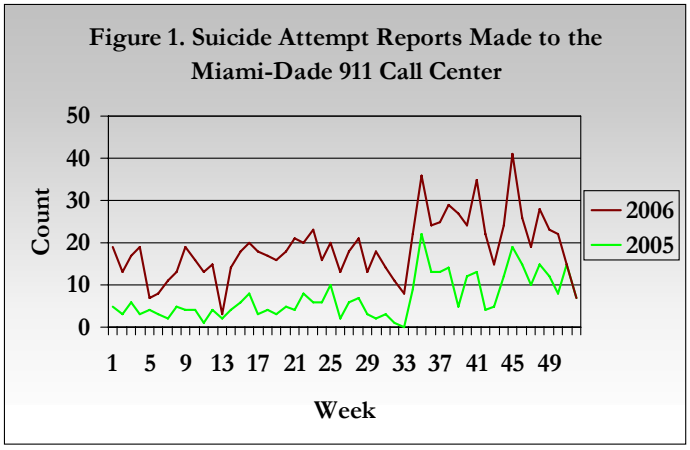
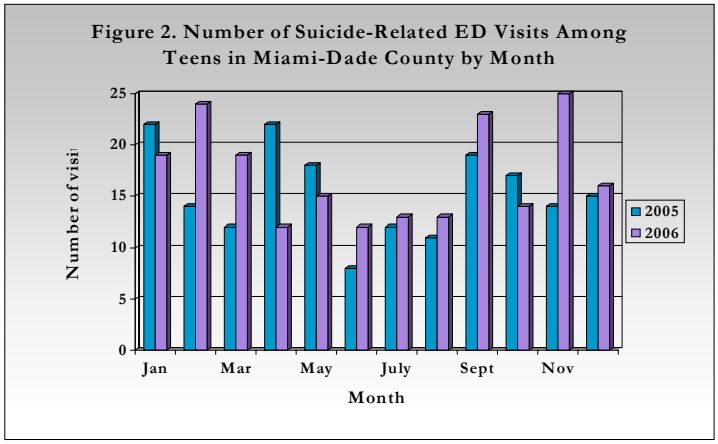
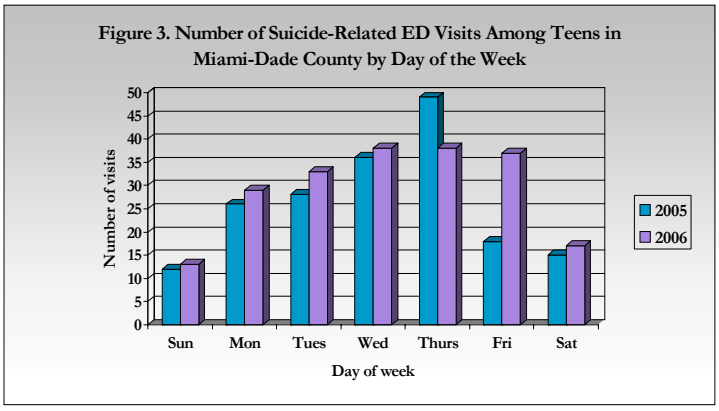


ESSENCE Data

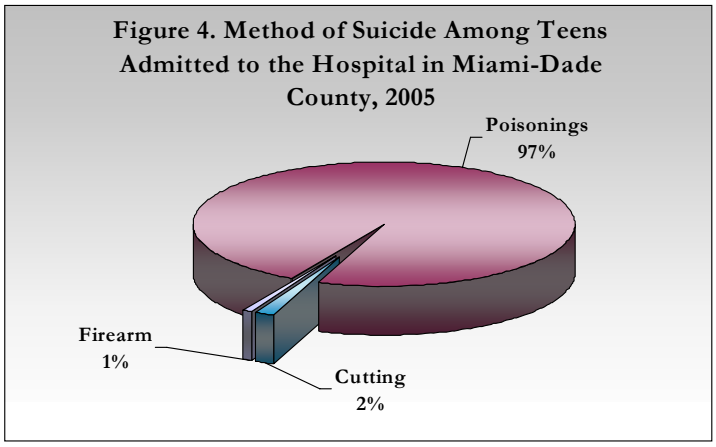
In 2006, 73% of the 205 chief complaints for suicide-related ED visits among teens were for ideation and 27% were for actual attempt. Among teens who visited the ED for suicide ideation, 43% were clinically depressed and 41% who attempted were depressed. Additionally, 68% of those who visited the ED for a suicide-related event were female. Suicide-related visits were lowest during the weekend (figure 2, 3).





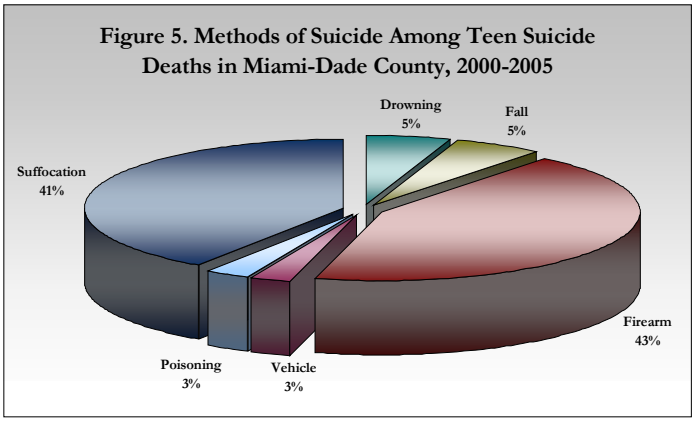
Hospitalization Data

In 2005, there were 118 hospital admissions for suicide attempts among teens. In 2006, there were 113 hospital admissions for suicide attempts among teens (data is for the first 9 months, last quarter pending). The overall annual rate of hospitalization for suicide in 2005 for Miami-Dade County teens was 35.1/100,000. The median total charge for each suicide-related hospitalization among teens in 2005 was $8,976.50. The median number of days admitted in 2005 was 2 (Range: 1 to 8 days). Seventy-one percent of those hospitalized for a suicide-related event were female. Hispanics had the highest rate of hospitalization compared to Whites and Blacks. Overdose (poisoning) was the most common method of suicide attempt, accounting for 97% of hospitalizations (figure 4). Half of the payments for suicide-related hospitalizations were from Medicaid.



Death Data

In 2005 there were 6 suicides among teenagers aged 10-19 (6 of 113 deaths for that age category). One teen used a firearm and 5 used suffocation as the method (figure 5). From 2000 to 2005, there were 37 teenage suicides and 73% of suicide deaths among teens were males.



Conclusions

Most outcomes of this study, particularly those regarding race and gender, are consistent with meta-analysis findings of previous studies. However, regarding the seasonality of suicide, findings indicated that ED visits and hospitalizations were lowest in the summer whereas typically the spring and summer have the highest number of suicide attempts. Since 62% of Miami's population is Hispanic and this ethnic group has been shown to be at high risk, interventions should be targeted toward this population, particularly females. Also, strategies to reduce suicide should include both individual and community interventions. Parents, schools, policymakers, community members, and students must work together to ensure that such serious public health events are prevented. Some interventions may include: means restriction to reduce access to weapons and drugs; crisis centers and hotlines; culturally appropriate education; peer support programs; and the Florida Initiative for Suicide Prevention SUN (Solutions Unlimited Now) Programs, which are 10 week courses in which groups of 8-10 students meet with a mental health professional.

If you or someone you know needs help, please call 305-358-HELP (4357) or 1-800-273-TALK (8255) 24 hours a day/7 days a week to speak to a crisis counselor.

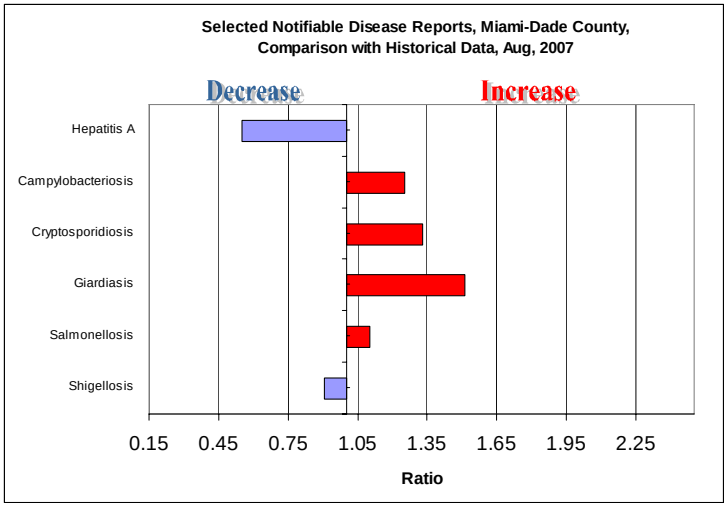
References

1. Youth Risk Behavior Surveillance System [YRBSS], Division of Adolescent and School Health, Centers for Disease Control and Prevention. (2006). Youth Online [Online Database]. Available online at URL: http://apps.nccd.cdc.gov/yrbss/
2. National Center for Injury Prevention and Control [NCIPC]. (2006). Leading Causes of Death and Fatal Injuries: Mortality Reports [Online Database]. Atlanta, GA: Centers for Disease Control and Prevention. Available online at URL : http://www.cdc.gov/ncipc/wisqars/
3. Moscicki EK. Epidemiology of completed and attempted suicide: toward a framework for prevention. Clinical Neuroscience Research, 2001; 1: 310-23.
4. Suicide in the U.S.: Statistics and Prevention. NIH Publication No. 03-4594; Revised Dec 2006. Available online at URL: http://www.nimh.nih.gov/publicat/harmsway.cfm
5. National Adolescent Information Center. (2006). Fact Sheet on Suicide: Adolescents & Young Adults. San Francisco, CA: Author, University of California, San Francisco. Available online at URL: http://nahic.ucsf.edu/downloads/Suicide.pdf

TO REPORT ANY DISEASE AND FOR INFORMATION CALL:

Office of Epidemiology and Disease Control

Childhood Lead Poisoning Prevention Program	(305) 470-6877
Hepatitis	(305) 470-5536
Other diseases and outbreaks	(305) 470-5660
HIV/AIDS Program	(305) 470-6999
STD Program	*(305) 325-3242*
Tuberculosis Program	*(305) 324-2470*
Special Immunization Program	(786) 845-0550



AVIAN FLU WATCH

Unless indicated, information is current as of September 10, 2007



- **Since 2003, 328 human cases of avian influenza (H5N1) have been confirmed** by the World Health Organization (WHO). Of these, 200 have been fatal.
- **Countries with confirmed *human* cases** include Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt, Turkey, and Lao People's Democratic Republic.
- **No human cases of avian influenza (H5N1) have been reported in the United States.**
- **The most recent confirmed case of human infection with H5N1 avian influenza is from Indonesia.** The 33 year old male was hospitalized Sept. 2 after presenting with symptoms on Aug. 25; he was pronounced dead Sept. 6. The source of his exposure is currently under investigation. Due to the amended criteria from the WHO for acceptance of confirmed cases of influenza A(H5) infection, the Ministry of Health of Viet Nam confirms the following additional cases. The sole case to have recovered is a 29 year old male who presented with symptoms May 30; he was hospitalized May 31. The following 4 cases did not survive. A 28 year old female who became symptomatic June 3, was hospitalized June 6 and died June 21. A 20 year old male that presented with symptoms June 2, yet later died June 10 after hospitalization on June 8. A 22 year old female that was declared dead July 28 after being admitted to the hospital with symptoms on July 22. Lastly, a 15 year old male with a symptom onset date of July 27; this case died Aug 3 after hospital admission Aug. 1.
- **H5N1 has been confirmed in *birds* in several other countries since 2003.** H5N1 has been documented in birds in more than 30 countries in Europe & Eurasia, South Asia, Africa, East Asia and the Pacific, and the Near East. For a list of these countries, visit the World Organisation for Animal Health Web Site at http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm.
- **No restrictions on travel to affected countries have been imposed.** Travelers should avoid contact with live poultry and monitor their health for ten days after returning from an affected country.

SOURCES: World Health Organization; World Organisation for Animal Health; Centers for Disease Control and Prevention

PARTICIPATE IN INFLUENZA SENTINEL PROVIDER SURVEILLANCE

The Miami-Dade County Health Department NEEDS Influenza Sentinel Providers!!

Sentinel providers are key to the success of the Florida Department of Health's Influenza Surveillance System. Data reported by sentinel providers gives a picture of the influenza virus and ILI activity in the U.S. and Florida which can be used to guide prevention and control activities, vaccine strain selection, and patient care.

- Providers of any specialty, in any type of practice, are eligible to be sentinel providers.
- Most providers report that it takes **less than 30 minutes a week** to compile and report data on the total number of patients seen and the number of patients seen with influenza-like illness.
- Sentinel providers can submit specimens from a subset of patients to the state laboratory for virus isolation **free of charge**.

For more information, please contact **Erin O'Connell** at 305-470-5660.

About the Epi Monthly Report

The Epi Monthly Report is a publication of the Miami-Dade County Health Department, Office of Epidemiology and Disease Control, The publication serves a primary audience of physicians, nurses, and public health professionals. Articles published in the Epi Monthly Report may focus on quantitative research and analysis, program updates, field investigations, or provider education. For more information or to submit an article, contact Diana Rodriguez, Managing Editor at 305-470-5660.

Monthly Report
Selected Reportable Diseases/Conditions in Miami-Dade County, August 2007

Diseases/Conditions	2007 this Month	2007 Year to Date	2006 Year to Date	2005 Year to Date	2004 Year to Date	2003 Year to Date
AIDS *Provisional	59	547	816	948	953	661
Campylobacteriosis	19	104	119	103	103	88
Ciguatera Poisoning	0	0	0	0	0	0
Cryptosporidiosis	4	20	13	18	15	9
Cyclosporosis	0	0	0	11	1	1
Dengue Fever	0	3	1	1	3	1
E. coli, O157:H7	1	0	0	0	2	0
E. coli, Non-O157	0	0	0	1	0	2
Encephalitis (except WNV)	0	1	0	0	1	0
Encephalitis, West Nile Virus	0	0	0	0	11	1
Giardiasis, Acute	36	180	141	140	207	117
Hepatitis A	5	22	29	38	29	29
Hepatitis B	0	10	18	35	26	42
HIV *Provisional	132	973	776	1020	1184	1073
Influenza A (H5)	0	0	0	0	0	0
Influenza Isolates	0	0	0	0	0	0
Influenza Novel Strain	0	0	0	0	0	0
Influenza, Pediatric Death	0	0	0	0	0	0
Lead Poisoning	26	104	101	113	197	173
Legionnaire's Disease	0	1	7	2	7	4
Leptospirosis	0	0	0	2	0	0
Lyme disease	0	0	0	0	3	4
Malaria	2	7	10	7	11	8
Measles	0	0	0	0	1	0
Meningitis (except aseptic)	0	6	11	11	8	6
Meningococcal Disease	0	5	8	5	12	3
Mumps	1	2	0	0	0	0
Pertussis	1	13	5	9	9	7
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	64	244	348	319	294	300
Shigellosis	19	94	83	192	124	213
Streptococcus pneumoniae, Drug Resistant	5	61	78	53	53	87
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	1	0	9	4	6
Tuberculosis *Provisional	14	106	134	125	152	143
Typhoid Fever	0	1	3	2	2	3
Vibrio cholera Type O1	0	0	0	0	0	0
Vibrio cholera Non-O1	0	0	0	0	0	0
West Nile Fever	0	0	0	0	3	0

* Data on AIDS are provisional at the county level and are subject to edit checks by state and federal agencies.
** Data on tuberculosis are provisional at the county level.