Emergency Department Data Surveillance Project Newsletter

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The EDDS Project is a joint effort of:

Community Health Improvement Partners

County of San Diego Health and Human Services Agency PHS Public Health Services Emergency Medical Services

Hospital Association of San Diego and Imperial Counties

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Welcome

Welcome to the first issue of the Emergency Department Data Surveillance (EDDS) Project Newsletter! The newsletter will provide information on current topics of interest that can be discussed using ED data. A more detailed description of the data is presented in reports available online at www.SanDiegoCountyEMS.com or www.sdchip.org. The most recent report available is the January-June, 2008 EDDS Brief Report. If you want more information, have suggestions, or would like to submit an idea for the newsletter, please contact Holly Shipp at (619) 285-6429 or Holly.Shipp@sdcounty.ca.gov.

Mental Illness in the Emergency Department

Patients with mental illness related diagnoses represent a significant and increasing number of emergency department (ED) visits.[1] Alarmingly, the true numbers are likely much greater due to lack of recognition by ED staff and underreporting.

Treatment of mental illness in the ED takes a considerable toll on resources and patient care, both nationwide[2] and in San Diego County. Caring for people who come to the ED for psychiatric problems requires more intensive care, thus limiting staff availability, decreasing available ED beds, and causing longer wait times.[2]

However, the ED is an important entrance into the medical system for the identification of patients with mental illness and appropriate referral for treatment.[3] In San Diego County, this is no exception.

For the two-year period from 2006 through 2007 there were 27,863 patients treated and discharged from a San Diego County emergency department with a principal diagnosis of mental illness[4] (452/100,000). The patient's principal diagnosis is the reason determined to be the chief cause of the encounter for care. This means that each day, on average, there were 38 patients who were treated in and discharged from the ED specifically for a mental illness.

Another 65,286 patients, or more than 89 per day, were treated in the ED for another reason, but were identified as having a mental illness as an "other" diagnosis. Other diagnoses reported in the ED database are all conditions that coexist at the time of encounter or that will affect the treatment received while in the ED.

Among those with a principal diagnosis of mental illness, the most common diagnoses were neurotic disorders (35%), which include anxiety, hysteria and obsessive-compulsive disorders. Fifteen percent of mental illness diagnoses were for other depressive disorders and 10% were for affective psychoses, which include manic disorder, major depressive disorder and bipolar affective disorder.

Females ages 25-44 years had the highest rate of ED discharge for a mental illness (642/100,000), followed by females ages 45-64 years (614/100,000). The highest rate for males occurred

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Mental Illness in the Emergency Department, continued.

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among those ages 25-44 years (556/100,000). Whites and Blacks were more likely than other racial/ethnic groups to seek treatment in the ED for a mental illness.

An estimated one out of every four adults in the United States suffer from a diagnosable mental disorder in a given year. ~NIMH[6]

Residents of the Central (512/100,000) and East Regions (531/100,000) of San Diego County had the highest rates of ED discharge for a mental illness, but the highest percent of all ED discharges who were treated for a mental illness occurred among persons with an unknown Region of residence (4.8%). For comparison, 2.7% of all ED discharges who were residents of the East Region had a principal diagnosis of mental illness.

Three-quarters of patients who were treated discharged from the ED for a mental illness were sent home for self care (76%), and 17% were discharged to a psychiatric hospital. Nearly one out of every five (19%) patients treated and discharged from the ED with a principal diagnosis of mental illness also had an "other" diagnosis of substance use or abuse.

There were 93,149 patients with any mental illness diagnosis (1,511/100,000), either as the principal or "other" diagnoses. While 30% of these patients had a principal diagnosis of mental illness, as described in the paragraph above, another 24% had a principal diagnosis of symptoms, signs and ill-defined conditions but also a secondary diagnosis of mental illness. Diagnoses classified as symptoms, signs and ill-defined conditions are used when the patient's condition cannot be defined elsewhere, such as a headache or difficulty breathing. Fifteen percent of patients with any mental illness diagnoses had a principal diagnosis of injury or poisoning and also a secondary diagnosis of mental illness.

In addition, nearly 3% (n=2,574) of all patients with any mental illness diagnosis were reported to have a self-inflicted injury[5]. The majority of patients (78%) noted to have a self-inflicted injury had "injury or poisoning" listed as the principal diagnosis, and a mental illness listed as an "other" diagnosis.

The pattern of ED discharge with any mental illness diagnosis was different by age and gender than for patients with a principal diagnosis of mental illness. Males ages 65 years and older had the highest rate of ED discharge with any mental illness (3,388/100,000) followed by females ages 65 years and older (2,858/100,000). Patients in this age group often had Alzheimer's and dementia reported as an "other" diagnosis.

The Community Health Improvement Partner's (CHIP) Behavioral Health Work Team (BHWT) works to contribute to the improvement of mental and behavioral health of the public. The BHWT does this by augmenting existing and/or developing new programs that strive to make significant, measurable im-

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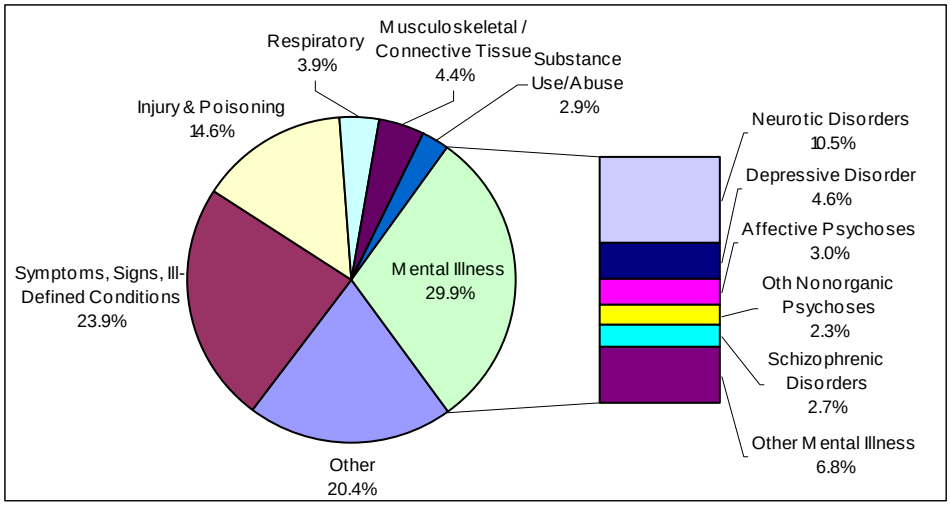
ED Discharges With Any Diagnosis of Mental Illness by Principal Diagnosis, San Diego County, January 2008—June 2008



Source: HASD&IC, CHIP, CoSD HHSA PHS EMS, ED database January-June 2008

Mental Illness in the Emergency Department, continued.

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pact to the community. County of San Diego Behavioral Health Services Staff participate in this group. The BHWT meets on the second Thursday of every month from 8:30am to 10:30am. For more information contact Aron Fleck at (858) 614-1558 or afleck@hasdic.org. For questions regarding the surveillance of mental illness in San Diego County emergency departments, please contact Holly Shipp at (619) 285-6429 or Holly.Shipp@sdcounty.ca.gov.

References

1 Hazlett SB, McCarthy ML, Londner MS, Onyike CU. Epidemiology of adult psychiatric visits to U.S. emergency departments. Acad Emerg Med. 2004; 11:193–5.

2 Carolla B. Emergency Departments See Dramatic Increase in People With Mental Illness Seeking Care. National Alliance on Mental Illness. Washington. April 27, 2004, Accessed online 2/3/09 at http://www.nami.org/

3 Kowalenko T. Khare RK. Should We Screen for Depression in the Emergency Department? Acad Emerg Med. 2004 11:2 pg 177. Accessed online 2/3/09 at http://www3.interscience.wiley.com/cgi-bin/fulltext/119922660/PDFSTART

4 International Classification of Diseases 9th Edition Clinical Modification (ICD-9-CM) codes 290, 293-302, 306-319

5 ICD-9-CM External Causes of Injury Codes (E-Codes) E950-E959

6 The Numbers Count: Mental Disorders in America. 2008. National Institute of Mental Health. Accessed online 2/3/09 at http://www.nimh.nih.gov/

Leading Causes of ED Discharge

From January through June 2008, neurotic, personality and other nonpsychotic mental disorders were the ninth most common principal diagnoses among all ED discharges.

"More than 90% of people who kill themselves have a diagnosable mental disorder"
-NIMH[6]

Top Ten Most Common Principal Diagnoses, San Diego County, January—June 2008

Principal Diagnosis	Number	Percent
460-466 ACUTE RESPIRATORY INFECTIONS	17,270	5.5
780 GENERAL SYMPTOMS	16,879	5.4
786 RESPIRATORY SYMPTOMS	16,804	5.4
789 ABDOMINAL SYMPTOMS	16,209	5.2
840-848 SPRAINS AND STRAINS OF JOINTS AND	13,046	4.2
920-924 CONTUSION WITH INTACT SKIN SURFACE	10,715	3.4
590-599 OTHER DISEASES OF URINARY SYSTEM	9,890	3.2
490-496 COPD AND ALLIED CONDITIONS	9,211	2.9
300-316 NEUROTIC, PERSONALITY, OTHER	8,966	2.9
870-879 OPEN WOUND OF HEAD, NECK, TRUNK	8,895	2.8

Source: HASD&IC, CHIP, CoSD HHSA PHS EMS, ED database January 2008-June 2008

Historical Data

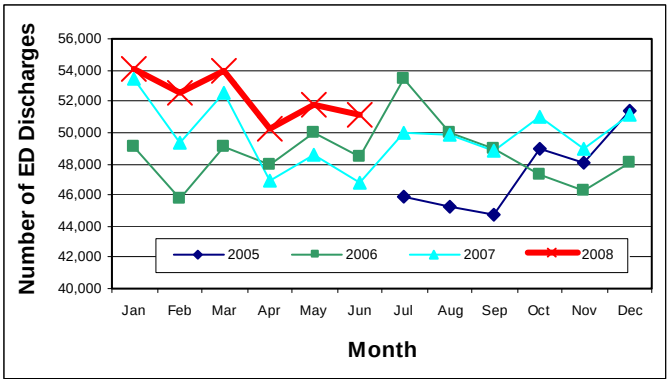
Currently, three full years of ED discharge data are available for a total of 1,779,882 records.

Total Number of ED Discharges

July – Dec 2005:	284,480
Jan – June 2006:	290,338
July – Dec 2006:	293,981
Jan – June 2007:	297,774
July – Dec 2007:	299,716
Jan – June 2008:	313,593

See the January-June, 2008 EDDS Brief Report for more detailed information.

Total Number of ED Discharges by Month and Year, San Diego County, July 2005—June 2008



Source: HASD&IC, CHIP, CoSD HHSA PHS EMS, ED database July 2005-June 2008

There is an increasing trend in the total number of ED discharges from July 2005-June 2008. It is unclear at this point if this is due to a true increase in the number of patients treated and discharged from the ED, or if this is due to more complete reporting by the hospitals. We will continue to monitor over time.

For More Information, Contact:

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www.SanDiegoCountyEMS.com
or
www.sdchip.org

Community Health Improvement Partners

County of San Diego Health and Human Services Agency
PHS Public Health Services
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EDDS Project Description

The Community Health Improvement Partner's Violence and Injury Prevention Work Team, in collaboration with the County of San Diego's Emergency Medical Services (EMS) and the Hospital Association of San Diego and Imperial Counties (HASD&IC), conceptualized and coordinated the implementation of the Emergency Department Data Surveillance (EDDS) project.

Emergency department (ED) discharge data describe all patients who were treated and discharged from participating emergency departments in San Diego County. ED data does not represent all patients who go to the emergency department; patients who were admitted to the hospital from the ED are not included. The information contained in this database is collected from billing data, so if a patient presents to the ED and is admitted to that same hospital, all information is transferred to the inpatient record and the patient becomes part of the hospital inpatient discharge database.

Emergency department data that are reported to Emergency Medical Services (EMS) do not contain unique identifiers, such as social security number. Each record represents a visit to the ED; multiple visits for the same person cannot be identified. Therefore, this report represents the number of *encounters* (visits), not the number of *people* who use the ED.

Currently, 16 out of the 18 civilian San Diego County EDs voluntarily report data, representing more than 97% of all ED discharges in San Diego County. These data represent medical encounters for less severe non-fatal injury or illness than seen among hospital discharges.

Current Data Reporting Status

All emergency department (ED) discharge data for participating hospitals have been reported for the first three quarters of 2008 (January - September). Fourth quarter data (October-December, 2008) are due to OSHPD on February 14, 2009.

Hospitals are asked to submit their fourth quarter data to Holly Shipp at Emergency Medical Services at the same time they submit to OSHPD.

If an extension has been filed with OSHPD, please notify Holly of the anticipated date of submission by calling 619-285-6429 or emailing: Holly.Shipp@sdcounty.ca.gov.

Four hospitals have already reported fourth quarter data. Thank you!

Upcoming Changes - Language Spoken

The Office of Statewide Health Planning and Development (OSHPD) will begin collecting Principal Language Spoken effective with emergency department (ED) discharges and encounters on or after January 1, 2009. Data for the January-March 2009 report period will require a new file format to accommodate Principal Language Spoken. Submission of this data begins in April 2009, with data approval on or before the May 15, 2009 due date. For more information, visit: www.oshpd.ca.gov/HID/MIRCal/Newly_Approved_Regulations.html

Hospitals are asked to continue submitting an identical data set to Emergency Medical Services (EMS), *including the new language variable*, in the same format as submitted to OSHPD.

This is an exciting addition to the Emergency Department Data Surveillance (EDDS) database! Future issues of the newsletter will examine the relationship of language spoken to various characteristics of ED discharges.