

Emergency Department Visits for Assault and Abuse in Miami-Dade County, 2007-2008

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Objective

- ▶ To identify trends in assault and abuse activity from 2007-2008 using chief complaint data from patients visiting the emergency department in Miami-Dade County.



Background

- ▶ The MDCHD uses ESSENCE to monitor chief complaints in 17 of the largest emergency department hospitals in the area.
- ▶ Few studies have utilized this tool for assessing activities such as injury and violent crimes. **Assault** is one of the 103 automated ESSENCE sub-syndromes that triggers alerts for assault-related activities.

The screenshot displays the ESSENCE web application interface. At the top, there is a navigation menu with tabs for 'Alert List', 'Event List', 'Overview Portal', 'Query Portal', 'Matrix Portal', 'Weekly Percent', 'Map Portal', and 'Bookmarks'. Below this is a 'Current Data Query Selections' section with fields for 'Data Source' (set to 'ER by Patient'), 'Geography System' (set to 'Region'), and 'Region' (set to 'Miami-Dade'). The 'Medical Grouping System' is set to 'ChiefComplaintSubSyndromes'. A 'Next Selections' section contains several dropdown menus: 'Select ChiefComplaintSubSyndromes' (set to 'Assault'), 'Select Detector' (set to 'RegressionEWMA12'), 'Select Age Group' (set to 'All Age Groups'), 'Select Sex' (set to 'All Sexes'), 'Select Start Date' (set to '01 Jan 07'), and 'Select End Date' (set to '31 Dec 07'). A red arrow points to the 'Assault' selection in the 'Select ChiefComplaintSubSyndromes' dropdown. A 'Submit' button is located at the bottom of the form.

Background

- ▶ In 2007:
 - 13,915 aggravated assaults and 1,389 forcible sex offenses in Miami-Dade County were reported to the Florida Department of Law Enforcement
 - 14,321 investigations for child abuse were conducted by the Department of Children and Families.



Study Aim

- ▶ To assess the varying status and socio-demographic disparities for visiting the ED for assault and abuse.

Methods

- ▶ Data for the study was extracted from ESSENCE, querying 19 of the 24 terms used in the sub-syndrome assault category
- ▶ Terms for insects and animals (i.e. animal bites) were excluded
- ▶ 2 violence-related terms were added - 'molest' and 'battery'

Methods

[History of ESSENCE](#) |
 [Syndrome Definitions](#) |
 [Detector Algorithms](#) |
 [Data Dictionary](#) |
 [Help](#)

[Alert List](#) |
 [Event List](#) |
 [Overview Portal](#) |
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ESSENCE - South Florida Syndrome Definitions

[\[Chief Complaint Based\]](#) |
 [\[Chief Complaint Explanation\]](#) |
 [\[ICD9 Based\]](#)

Chief Complaints Based Syndrome Definitions

[\[Syndrome\]](#) |
 [\[Subsyndrome\]](#)

[SUBSYNDROMES](#) > ASSAULT

Rules

Assault = N/A

Terms

| | | |
|----------------|---------------------|-------------------|
| BEAT UP | BEAT POLICE | BEAT HUSBAND |
| CHOKED BY | STAB | HUMAN BITE |
| ASSAULT | RAPE | DOMESTIC VIOLENCE |
| DOMESTIC ABUSE | ALTERCATION | CHILD ABUSE |
| PHYSICAL ABUSE | SEX ABUSE | SEXUAL ABUSE |
| PUNCH FACE | FIGHT | ATTACKED |
| ATTACK BY | SQUIDDEL | CAT |
| DOG | SEES | WASP |

[Questions or Problems?](#)

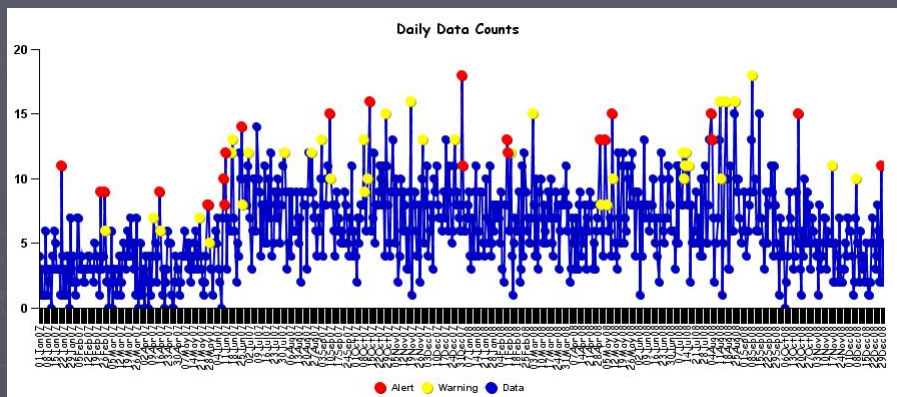
Methods

- ▶ The time period for the study was January 1, 2007 – December 31, 2008.
- ▶ Chief complaint sub-syndromes were coded into 5 different headings including:
 - assault, abuse, battery or domestic violence
 - sexual assault, sexual abuse or rape
 - fight or altercation
 - human bite
 - stabbing
- ▶ Analysis was conducted to assess trends and/or differences in age groups, gender, complaint category, and race/ethnicity.

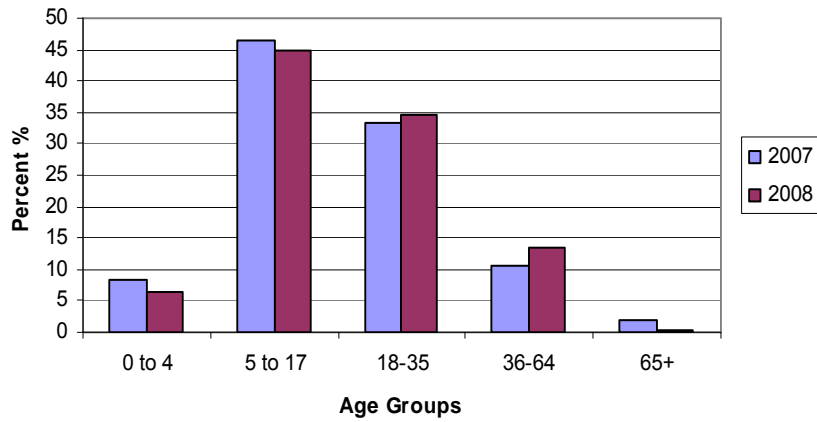
Results

- ▶ 5,183 patients with assault/abuse complaints were seen in the ED from January 1, 2007 – December 31, 2008.

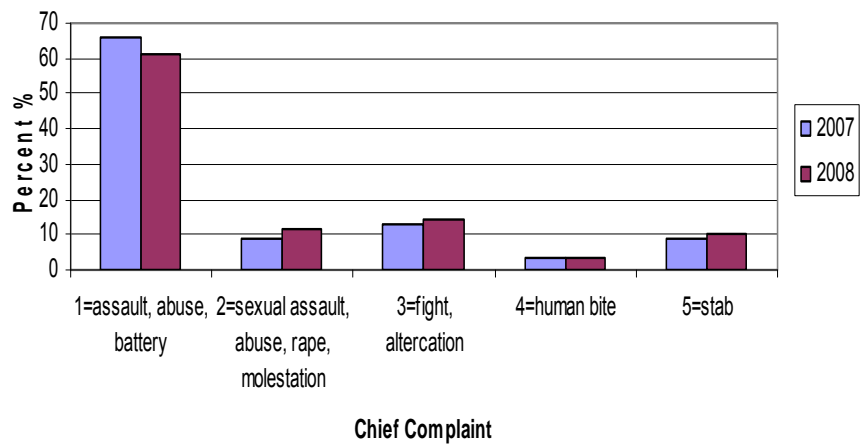
Total # of assault alerts = 60



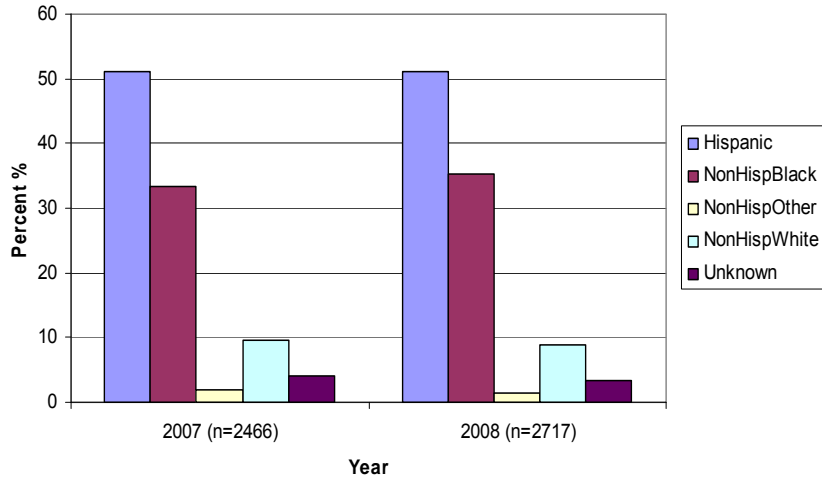
Sexual Assault and Abuse by Age Group, 2007-2008 Miami-Dade County



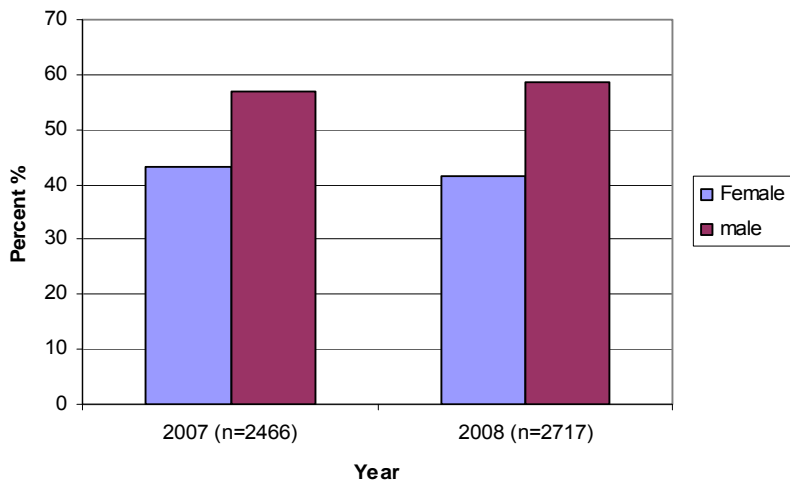
Chief Complaints Categorized, 2007-2008, Miami-Dade County



Percent of Assault/Abuse by Race, 2007-2008 Miami-Dade County



Percent of Assault/Abuse by Sex, 2007-2008 Miami-Dade County



Conclusions

- ▶ Syndromic surveillance data is useful for tracking assault and abuse activity. From 2007 to 2008, the data indicates increases in assault/abuse activities in all variables (age, gender, race, and chief complaint category).
- ▶ The higher values in 2008 are most likely due to the increased number of hospitals reporting ED data through ESSENCE (14 hospitals in 2007, 17 hospitals in 2008).
- ▶ In order for assault and abuse to be better understood and to help target prevention messages, it is important to have comprehensive surveillance data.