

Better, Stronger, Faster: Making the Case for Adding Data Fields to Syndromic Surveillance New Jersey, 2015

Pinar Erdogan, MPH
Teresa Hamby, MSPH
Stella Tsai, PhD
 New Jersey Department of Health
 October 1, 2015

2015 North East Epidemiology Conference



1

Outline

- Background: What is EpiCenter?
- Expanded Data Project
 - NJPIES synthetic cannabinoid call review
 - Results from call review
 - Conclusion & future steps
- Questions



2

What is EpiCenter?

- ED syndromic surveillance system used in NJ and other states/jurisdictions
- Launched by Health Monitoring Systems, Inc. (HMS)
- Collects, manages, and analyzes data
- 78 of 80 acute care & satellite EDs connected in NJ



3

Expanded Data Project

- Chief complaint data was the only data source for syndromic surveillance information
- Incorporate more enhanced data types
- Enhance surveillance initiatives and enhance healthcare associated infection preparedness measures (e.g. Ebola)

Current Data Fields	Target Data Fields (some examples)
Facility ID	Triage notes*
Patient ID	Temperature
Visit number	Discharge prescription
Date/time of the health event	Discharge diagnosis
DOB	Immunization administration
Gender	Inpatient diagnosis and treatment
Free text chief complaint	Insurance provider

*3 hospitals submitting

Expanded Data in Practice

- April, 2015 - Information from New Jersey Poison Information and Education System (NJPIES) regarding “outbreak” of negative reactions to synthetic cannabinoid use



Expanded Data in Practice

- Line list of 50 calls from NJPIES
 - Calls received between April 5 and May 11
- NJDOH created a custom classification using chief complaint data with the keywords: black magic, black mamba, cloud 9, cloud 10, incense, k2, legal high, pot potpourri, spice, synthetic, marijuana, voodoo doll, wicked x, zombie, agitation, k-2, moon rocks, seizure, skunk, yucatan
- NJDOH performed a similar text search using the same keywords within the triage notes data from three hospitals



Results: Call Data Review

- Chief Complaint Data
 - 18 (36%) out of 50 calls were matched via chief complaint data
 - 32 (64%) of the calls were not matched due to non-specific words
 - Commonly used keywords: seizure and marijuana
- Triage Notes Data
 - Of the 50 calls, 6 calls were from hospitals that submitted both triage notes and chief complaint data
 - 5 (83%) out of 6 calls were matched via triage notes data
 - Commonly used keywords: k2 and marijuana

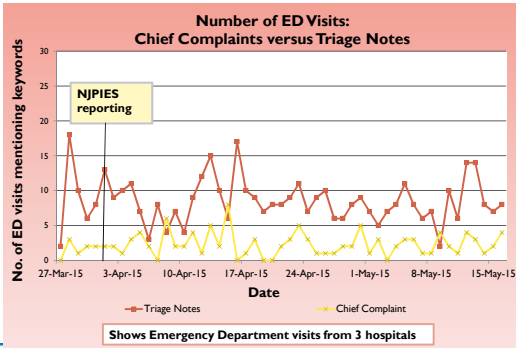


Results: Overall Data by EDs

Number of ED visits by data type March 27-May 16, 2015		
	Triage Notes	Chief Complaint
Hospital 1	96	0
Hospital 2	254	116
Hospital 3	84	0



Results: Overall Data by Date



Results: Specific Examples

	Chief Complaint Data	Triage Note Data
Example 1	Psychological assessment	...PT had K2 in pockets...
Example 2	(No chief complaint data)	...Admits to drinking a 6 pack today, heroin, cocaine, and marijuana use today...

Concluding Thoughts & Future Steps

- Expanded data fields can improve surveillance capability and precision
 - Potential utility for healthcare associated infections such as Ebola
- NJDOH staff is reaching out to hospitals to request participation

Acknowledgements

- Health Monitoring Systems, Inc
 - Elizabeth Kostial
 - Web address: www.hmsinc.com
- New Jersey Poison Information and Education System
 - Bruce E. Ruck, PharmD, RPh

Questions & Comments

Pinar Erdogdu
Pinar.Erdogdu@doh.state.nj.us
Phone: 609-826-5964



13

