Dr. Rahul Gupta, Director

KANAWHA-CHARLESTON HEALTH DEPARTMENT

Description of Syndromic Surveillance Data Provided by Dr. Gupta, Director Kanawha-Charleston Health Department

Ten sentinel multi-provider and multi-location practices representative of the impacted population at large include FQHCs, Urgent Care, Primacy Care Centers, and School-Based Health Centers. There are a minimum of 1300 providers, many of which may belong to a single large practice and some may function in multiple practices. These practices see patients across approximately 250,000 of the 300,000 people impacted from (at least) Putnam and Kanawha Counties and thus such are included. I want to emphasize that public health syndromic surveillance is much more complicated than a simple numerator/denominator function or explanation. Therefore, It is extremely important to understand that clinical public health epidemiology generally follows national and international protocols, such as this, which are standardized and representative of populations. This is descriptive epidemiology. My recommendation would be to have our folks describe the detailed epidemiology, if needed.

Methods Description from Dr. Gupta

Using active syndromic surveillance, we monitored in real-time the frequency of illnesses with a specified set of clinical features not identified with a specific diagnosis. The population for analysis was chosen among patients self-reporting illness symptoms related to MCHM water exposure with onset after January 9, 2014.

Sentinel providers were identified to complete a line list tool. Sentinel providers included physicians and mid-level providers (Nurse Practitioners, Physician Assistants, etc.) who had agreed to report all cases (patients) who presented with self- reported symptoms related to exposure to MCHM. Medical practices were specifically selected based on defined criteria which included: community centered (defined as practices more likely to see those patients presenting with symptoms they reported as related to MCHM exposure as opposed to random specialty practices such as hospitalist, cardiologist etc.); with multiple facility locations in Kanawha and Putnam counties such as large pediatric practices, primary care centers, school-based health centers, and Urgent Cares. The facilities had multiple providers covering a large geographical area and were representative of the two largest counties affected (Kanawha and Putnam).

A line list was developed to collect data on each patient which included:

Demographic data was collected in aggregate and limited to gender and age.

Descriptive epidemiology methods were used to define data collected which including time and place of occurrence (home, work, food facilities, other) and the self-reported symptoms of the persons affected.

The list included multisystem symptoms (respiratory, digestive, integumentary (skin), neurological)

Respiratory: cough, sore throat

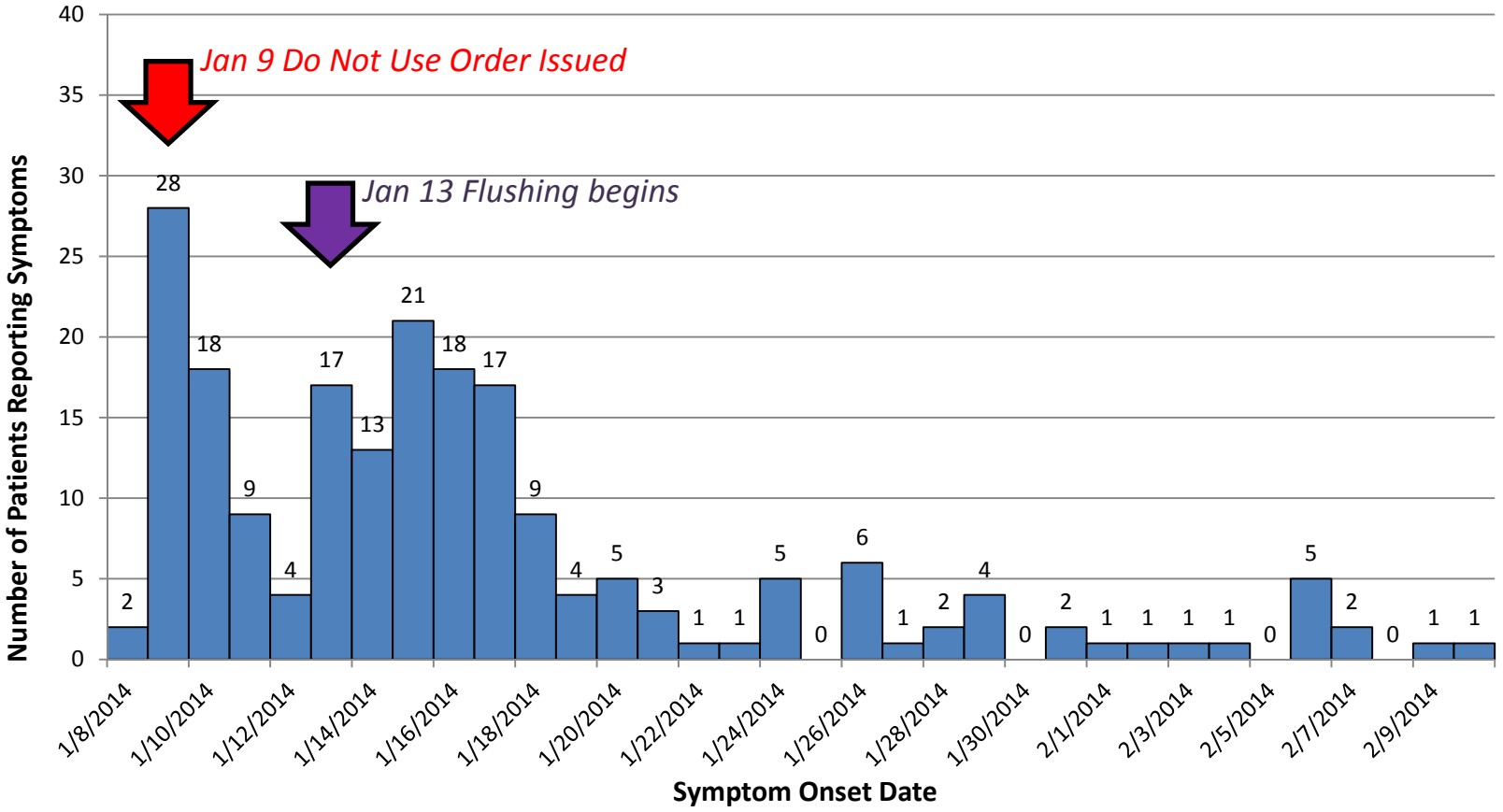
Digestive: nausea, vomiting, diarrhea

Skin: rash, skin irritation

Neurological: Headache

As symptoms had not been defined we included a column: Other symptoms

Kanawha-Charleston Health Department
Elk River Chemical Spill, Community Health Providers Syndromic Surveillance



Data represent only 10 multi-provider practices; There are at least 1,300 providers in the area

Kanawha-Charleston Health Department
Elk River Chemical Spill, Community Health Providers Syndromic Surveillance
Exposure Related Illness (Self-Reported) between Jan. 8 and Feb 8, 2014
(*n* = 231)