The Louisiana Early Event Detection System (LEEDS) is a syndromic surveillance system maintained and used by the Louisiana Department of Health Infectious Disease Epidemiology Section. Syndromic Surveillance is the collection and analysis of pre-diagnostic and non-clinical disease indicators using pre-existing electronic data. LEEDS receives data daily from 72 hospital emergency departments state-wide which covers all 9 LDH regions and results in representative data state-wide.

The Infectious Disease Epidemiology Section in the Office of Public Health has authority under Louisiana state law to conduct surveillance and investigations for any disease outbreak or suspected outbreak. In April 2013, syndromic surveillance became reportable by the sanitary code of the state of Louisiana (LA C51:II.105) as class E, which is reportable within 1 business day. The data is de-identified and sent by secure electronic format. It is processed automatically and chief complaint, admit reason, and/or diagnosis data fields are used to identify ED visits indicative of specific defined syndromes using or excluding key words and codes.

Syndromic surveillance data can be used to detect clusters of symptoms or health complaints that may be indicative of a disease outbreak. It can also be used to monitor trends in syndromes of public health importance as well as to provide situational awareness during events such as a natural disaster. The data may also be used to monitor non-infectious disease trends or seasonal trends.

Figure 1 represents the percentage of ED visits attributed to drug, alcohol, and psychiatric syndromes statewide in 2015 and 2016. This syndromic surveillance data can be useful in monitoring trends but only measures a specific part of the issue which is those patients presenting to an acute care setting. Due to the free text nature of the chief complaint field, not all specific drug names or other specific terms may be included. Through 2015 and 2016 the percentage of total ED visits associated with the DRUGAB syndrome varied from 0.51% to 0.75%. LEEDS tags visits as the DRUGAB syndrome where terms related to intentional or accidental use of prescription and/or illicit drugs are mentioned in the record received, however LEEDS would not necessarily tag all visits related to drug abuse if drug abuse is not mentioned. The same holds true for all syndromes including ALCOHOL and PSYCH. LEEDS tags visits as ALCOHOL syndrome where alcohol abuse and intoxication is mentioned in the chief complaint, admit reason, or diagnosis fields. Through 2015 and 2016 the percentage of total ED visits associated with the ALCOHOL syndrome varied from 0.67% to 0.85%. Visits tagged as PSYCH syndrome showed the largest variation over time, including a steady increase beginning in January 2016. Visits tagged as PSYCH syndrome include chief complaint, admit reason, or diagnosis fields related to psychiatric and mood evaluations and conditions. These visits accounted for 1.75% to 2.36 % of total ED visits statewide during 2015 and 2016.

**Figure 1**