

Syndromic Surveillance Workshop
Signal Investigation: examples using simulated data

Exercise 1 is a spatial hospital signal for the diarrhea syndrome involving 31 observed ED visits and where 17 were expected, p value = 0.009.

- [1-1] Describe the signal in person, place and time
- [1-2] What are the distinguishing features of the signal? Do these suggest any hypotheses?
- [1-3] Are there any anomalies present in the data?
- [1-4] What steps might you take to investigate this signal further?

Exercise 2 is a spatial hospital signal for the respiratory syndrome involving 65 observed ED visits where 29 were expected, p value = 0.001.

- [2-1] Describe the signal in person, place and time
- [2-2] What are the distinguishing features of the signal? Do these suggest any hypotheses?
- [2-3] Are there any anomalies present in the data?
- [2-4] What steps might you take to investigate this signal further?

Exercise 3 is a spatial zip code signal for the respiratory syndrome involving 24 observed ED visits and where 11 were expected, p value = 0.005.

- [3-1] Describe the signal in person, place and time
- [3-2] What are the distinguishing features of the signal? Do these suggest any hypotheses?
- [3-3] Are there any anomalies present in the data?
- [3-4] What steps might you take to investigate this signal further?

Exercise 4 is a two-day, citywide signal for the fever syndrome with 422 ED visits where 299 were expected, $p < 0.01$. No spatial signals were detected.

- [4-1] Describe the signal
- [4-2] What additional information from the system might you want to have?
- [4-3] How might you approach investigating a citywide signal such as this one?
- [4-4] NYC restricts some analyses to adults only, what is the rationale for doing this and do you agree?