July 21, 2010 – 1pm EST

CSTE Influenza Surveillance Workgroup Call

Leads: Michael Jhung, CDC

1. Introduction
2. Roll call
3. Action Items from the June 23, 2010 call:
    a. The ELC *supplement* likely will not be distributed this fiscal year
    b. Electronic data streams – no new update. Will update on next call.
    c. Methods for baseline/threshold and maps to states
        i. See slide set at ttp://www.cste.org/CSTEStateThresholdsPresentation.pptx
        ii. This slide set describes how CDC creates regional and national baselines and how it is adjusted for state level/CBSA baselines. Q and A's were discussed.
        iii. CDC will present the maps (intensity level per state) and not graphs/tables as shown in the presentation. National ILI proportions will continue to be available to public.
        iv. Communication around the maps will be important as they can be interpreted inappropriately. CDC will follow-up with individual states if there are anomalies within that state that do not accurately portray the activity within a state prior to making available to public.
        v. The language accompanying these visualization maps will be discussed within this working group.
4. CDC is developing a short survey of influenza assessment plans in late August. CDC will contact states directly.

Methodology Explanation

- Weeks when WHO/NREVSS laboratories <10% positive for influenza
- Average and standard deviation of the weighted %ILI for those weeks
- Standard baseline is mean + 2 Std Dev
- Statistic=(observed ILI ratio-baseline ILI ratio)/(baseline standard deviation)

Step One: Establish provider level baselines

- Trusted Providers
    - Non-zero patient visits for at least 10 weeks during the last season
    - Non-zero ILI counts for 10 weeks during the baseline period
    - Baseline mean ratio over last three seasons when ILI count was >0 (week when regional laboratory data was <10% positive for influenza)
- Non-Established Providers (provider type method)
    - Assigned the baseline and standard deviation of their type grouped as:
        - 0='Unknown'
        - 1='Emergency Medicine'

- 2='Family Practice, Infectious Disease'
- 3='Internal Medicine, OB/GYN, Other'
- 4='Pediatrician'
- 5='Student Health'
- 6='Urgent Care'

Step Two: Establish weekly state level baseline means and standard deviations

- The baseline ratio for a state is calculated using a weighted sum of the baseline ratios for each contributing provider for the week
- Standard deviations are calculated by taking the std dev of the binomial distribution centered at the baseline ratio
    - stdev=sqrt(ratio*(1-ratio)/N)
        - N =(total weekly visits) or if this value is too large
        - N=round((3.0^2)* ratio*(1-ratio)/(0.01^2)))
            - Requires areas with large total visits to have at least a 1% increase above the mean to be above threshold
- If ratio = 0 then the std dev = 1
- If ratio = 1 then std dev = 0.01

Step Three: Calculate Weekly Statistics

- Statistic= (observed ILI ratio – baseline ratio) / (baseline standard deviation)
- Statistics calculated for areas with >=20 patient visits

New Action Items:

1. CDC will work on language for the visualization maps and discuss the language via email with the working group before disseminating to the larger CSTE audience. CDC will also solicit opinions regarding the best method to provide state-specific details (e.g., how many providers participate in each state).
2. Follow up on any updates for:
    a. ELC date announcement. Consider including supplement as part of main ELC.
    b. Aggregate Hospitalization Surveillance survey
    c. Electronic data streams
3. **Next call August 18th at 1pm EST.**