**Jigsaw: Compare and Contrast NNDSS Disease Reports**

Today, we will be breaking into new groups to compare and contrast the results of your disease reports.

Groups will contain one representatives of each disease from our original study. You will present your disease to your new group and listen to the presentations of other diseases. After each disease and the results have been introduced, you will work together to come up with a “take home message” about infectious disease risk in the United States. Your group will nominate someone to tell the rest of the class what the take home message is.

Below, I have a schedule and some prompts to help you think about your take home message. During class, I will make announcements when you should be moving on to the next phase (if you haven’t already)

11:00 – 11:10 AM – Meet with your original disease group, go over any last-minute details in the report, make sure everyone has a hard or digital copy of the report to use to help explain their findings to their new group.

11:10 – 11:40 AM – Assemble with new groups, each disease representative should introduce their disease and what they learned about the ecology and evolution of their disease to the group (~5 min each).

11:40 – 12:00 PM – Once all five diseases have been introduced, each group should come up with a take home message about the entire data set (all five diseases over five years) and the ecology of infectious disease in the United States.

12:00 – 12:15 PM – Each group nominates one person to tell the rest of the class what their take home message is. Dr. Fisher-Reid will keep a running document of our take home messages as each group presents.

No later than 11:59 PM DAY, MM/DD – One member of the original disease group uploads disease report to Blackboard.

**All Diseases Groups**

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| **Team A** | **Team B** | **Team C** | **Team D** |
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**Take Home Message Prompts**

Please use these guiding questions to help your group organize their ideas about what the take-home message about the ecology of human infectious disease should be. You do not need to turn these in, these are intended to be used to help you brainstorm your group’s take home message for sharing with the class.

1. Do the five diseases share any of the following? If not, how are they different?
	* Transmission mechanisms
	* Symptoms
	* Seasonal frequency
	* Regional frequency
	* Relationship to population density
2. Do the data suggest any particularly risky times of year or places in the country? On the other hand, are there places in or times during which disease prevalence is very low? Can you hypothesize why one location or time of year might have such high or low disease risk? Are their non-biological factors (e.g., cultural, societal, legal) which might be playing a role in variation in disease risk across the country?
3. Pertussis (whooping cough) is the only disease on our list which has a vaccine. Patients generally receive their first Tdap (tetanus, diphtheria, and pertussis) vaccine around age 11-12, and then need boosters every 10 years to keep up immunity. Anti-vaccination movements have reduced immunization rates throughout the country. How does this information change your interpretation of the pertussis data? Is there any evidence of low vaccination rates (i.e., high case numbers) in our data set?
4. Pretend for a moment that you are an employee of the CDC. Given what you have learned about these diseases and their basic ecology and evolution, do you have recommendations for the general public on minimizing their personal disease risk?
5. Recognizing that our data set was a subset of a much larger data set of all states in the country, every week for several decades, what would your next steps be in confirming the patterns you uncovered in our data set?