DISEASE DETECTIVES TRYOUT TEST

1. **Define Outbreak, Pandemic, and Epidemic. (3 points)**

Disease detectives conducted a number of investigations on the possible mode of transmission. One of these included an interview of 59 persons who were roommates of Legionnaires' disease case patients while they were at the convention and 69 roommates of 68 control Legionnaires. Five of the 59 roommates of Legionnaires' disease cases and 5 of 69 roommates of controls were ill with Legionnaires' disease. (#2)

2. **Calculate the relative risk of illness among roommates of Legionnaires' disease cases (show your work in the space below). What does this number show? (3 points)**

The following chart shows the cases of Legionnaires' disease for smokers and non smokers. (#3)

Cases	Controls		Total
	Smoker	Nonsmoker	
Smoker	14	17	31
Nonsmoker	5	16	21
	19	33	52

3. **Calculate the odds ratio or relative risk (whichever is relevant) for illness associated with smoking at the convention (Show your work in the space below – carry answer to 2 decimal places). (3 points)**

4. The following chart shows the number of cases per month of Pneumonia. Below draw an epicurve for the number of cases of Pneumonia in the United States. (6 points)

Month	Number of Cases in Illinois	Number of Cases outside of Illinois
January	3	0
February	5	1
March	8	9
April	0	2
May	1	1
June	2	15
July	9	19
August	0	11
September	0	15
October	0	14
November	1	17
December	15	10

5. **You can identify cases in three different ways. What three ways? Define each. (6 points)**

6. **What are the three types of descriptive studies? (3 points)**

The West Frisian Flower show took place on February 19 to 28, 1999 in Bovenkarspel, Netherlands and attracted 77,061 visitors. From March 7 to 11, 10 persons with severe pneumonia were admitted to a local hospital in nearby Hoorn. Six of eight persons tested had urine antigen tests positive for Legionella.. An additional 4 probable cases were identified. Interviews with cases and a group of 21 controls indicated that 10 of 10 cases and 4 of the controls had all visited the West Frisian Flower Show. (#7-9)

7. **What name is used for this type of study design? (1 point)**

8. **Calculate the relative risk or odds ratio (whichever is most appropriate for this study design) for the association between illness and attendance at the show. Show your work in space below. (Since 1 cell of your table is zero, add 0.5 to each cell for your final calculation of association). (3 points)**

9. **Using the information given above, write a case definition for suspect cases only. (you may use a separate sheet or the back of this sheet). (20 points)**