Name: _____
DATA 420 — Spring 2024
Reading check #10: Silver chapter 7
Feb. 29, 2024

+1XP *free to everyone who takes this quiz, since it's the first quiz I've ever given on a Leap Year Day. Enjoy!*

1. Silver provided a list of the estimated R_0 values for many well-known contagious diseases. The seasonal flu's is about 1.3, Ebola is 1.8, smallpox is 6, and the measles a whopping 15.

   Which disease did he mention has an astounding R_0 of about 150? _____

2. What phenomenon did Silver remark had an almost perfect one-to-one correspondence with the number of autism diagnoses over time? What general point was he making with this example?

3. In the 1990's and early 2000's, when syphilis, gonorrhea, and other STDs were exploding in frequency among San Francisco's gay male population, what viral disease fell to its *lowest* level in that same population? And what explanation does Silver (who is gay himself, by the way) give for this?

4. What fundamental assumption of the SIR model turned out not to be true among Chicago's school-aged children in the 1980's, which caused an unexpected outbreak of measles?

5. What type of modeling do Silver's colleagues say may overcome the weaknesses of stock-and-flow models like SIR?

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