

COVID-Inspired Data Science Education through Epidemiology (CIDSEE)

Presenter: Jacob Sagrans

CSTA New England regional conference

November 12, 2022

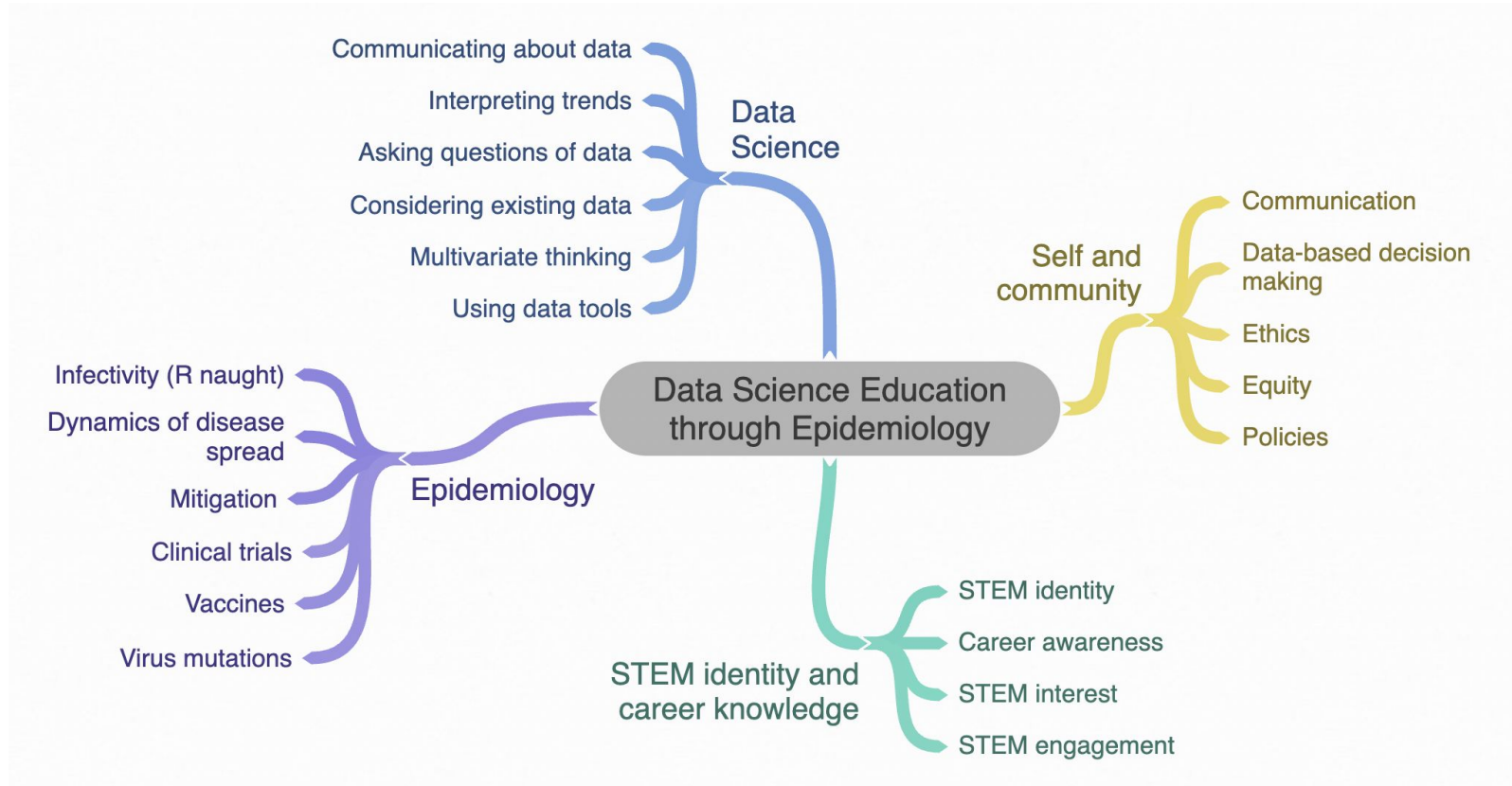
Link to slides: <https://bit.ly/CSTANE22CIDSEE>



Agenda

- 1) Welcome/introductions (*10 min*)
- 2) Project overview (*10 min*)
- 3) Exploring 1918 flu data in CODAP (*10 min*)
- 4) CODAP/NetLogo simulation of spread of COVID
under different conditions (*10 min*)
- 5) Closing/Q&A (*10 min*)

CIDSEE project overview



Data Detectives Clubs program components

- Book and podcasts
- CODAP/NetLogo activities (codap.concord.org)
- Non-digital activities



**“Trailer” for
*The Case of
the COVID
Crisis***



Clips of a Data Detectives Club in action



Exploring 1918 flu dataset in CODAP

- Activity link: <https://bit.ly/CCPittsFlu1918>
- When do the number of new infections peak?
- When do the number of deaths peak?
- Why do deaths peak at a different time than the number of new infections?
- How would you describe the shape of the graphs?
Increasing? Decreasing? Some combination of the two?
- Pretend it is November 30th, 1918, when the graphs/data stops. Looking forward, when do you think daily new infections will be less than 40?



CODAP/NetLogo to simulate COVID spread

CODAP/NetLogo virus simulation link:
<http://bit.ly/CCCODAPNetLogo>

Parameters to use:

300 peeps (people)

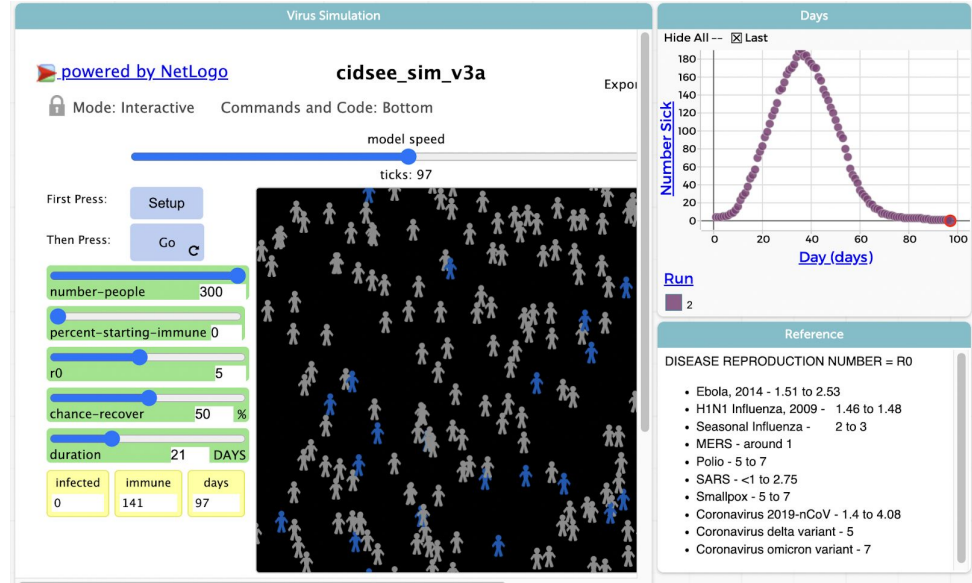
Survival rate 50 percent

Duration of illness 21 days

$R_0 = 5$

Try out different %'s starting immune:

0%, 25%, 50%, 75%, 90%



Fill out one row with your name and ending populations
(number still alive) in this spreadsheet:

<https://bit.ly/CIDSEEs spreadsheetCSTANE>



Closing/Q&A



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Boys & Girls Clubs of America • Girls Inc. • National 4-H Council • Y-USA

- Link to one-page project overview: <https://bit.ly/3rbYBJP>
- Link to request our curriculum: <https://bit.ly/DDGuideRequest>
- Link to buy the book: <https://bit.ly/37dRfg8>
- Link to the slides again: <https://bit.ly/CSTANE22CIDSEE>
- Contact me!: jacob.tumblehome@gmail.com

