Team Indigo

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Christine Enehi





Frieda

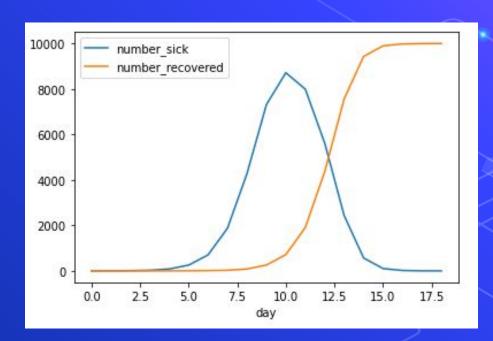


"How do age and immunocompromisation affect pandemic timelines?

About Our Simulator

- Coded in Jupyter notebook using Python
- Assumed a population of 10,001 with a baseline recovery rate of 5 days
- Used simulated data based on real COVID statistics

Baseline



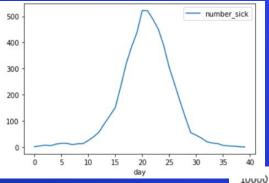
Immunocompromisation

8000

6000

4000

2000

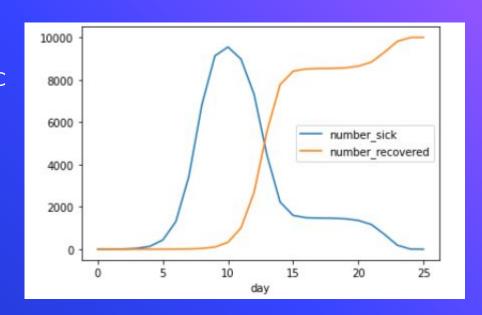


- 3 times more likely to contract
- Longer recommended isolation time
- Duration of illness

number_sick number_recovered number susceptible

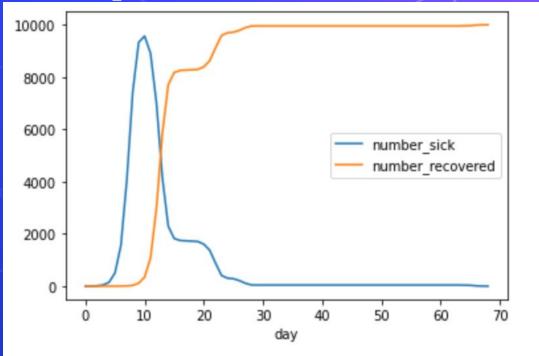
Age

- Introduced "over 60" demographic into population
- Altered sickness rate and number of days sick for "over 60" demographic using population class and person object
- Found that average timeline of pandemic was altered

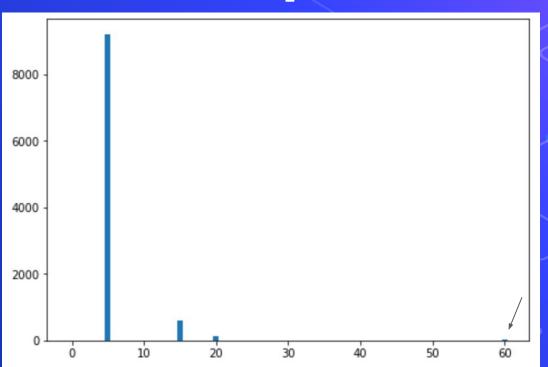


Age and Immunocompromisation

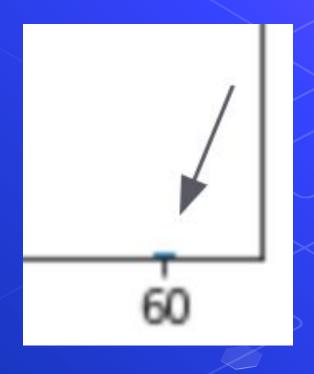
- People Over 60: 1,464
- ImmunocompromisedPeople: 292
- People With Both Conditions: 40
- Total RecoveryTimeline: 68 Days



Age and Immunocompromisation



Age and Immunocompromisation



Sources

- Becker's Hospital Review
- Centers for Disease Control and Prevention - May 2, 2022
- Centers for Disease Control and Prevention - Jan 14, 2022
- Yale Medicine
- AstraZeneca

