SETUP-- Put Unplugged Rules on board, Put Die and roll at each table, Get the tables out of the way in an orderly fashion.

CLASS SCRIPT
--> Start with an intro
    --Computer Modeling-- models in everyday life. . .
    Weather--hurricanes global warming?, Bridges, Sports, Business
    What is the purpose of models? We will explore this with an epidemiology simulation. . . What’s epidemiology?
--> CS Unplugged exercise
    -->Do it once with a subset of students in front of everyone
        -->Put the rates on the board
        --> Split kids up into groups of ~6-8 and have
        --Factors of Disease spreading
            - Susceptibility
            - Location
            - # of People you come into contact with
            - Recovery Rate
            - Vaccinations
            them do the exercise, Put markers on the floor (ie: blank paper)

EACH ROUND
A) MOVEMENT ROLL: 1 up, 2 down, 3 left, 4 right, 5 and 6 - Person’s choice-- If someone is already in that position, stay where you are (ie: don’t move)!
B) SICK ROLL (if you’re healthy and next to Sick person): OLD 5,6 to stay healthy; Adult 3,4,5,6, to stay healthy; Kids 4,5,6, to stay healthy-- IF YOU BECOME SICK GET A SICK CARD

C) RECOVER ROLL (If you’re sick): 5,6 to recover; Adult 3,4,5,6 to recover; Kids 4,5,6 to recover, IF YOU RECOVER GET AN IMMUNIZED CARD and lose your sick card! YOU CAN NEVER BE SICK AGAIN!!!

- Talk about the Exercise
  - Show hands, How many lived, how many died, how many were sick?
  -
  - Who spread the most virus Adults, Kids, Oldsters. . . ?

-GO TO WEBSITE
rintintin.colorado.edu/~basawapa

-Lets break up into groups of two-- (Let the teacher do that)

- Eventually I’m going to give you a chance to vaccinate some of these people, but let’s first Run the Simulation 4 times, with no inoculation Strategy, and see the number dead in simulation variables
- How many died?
- When did the simulation stop?

Let’s talk for a second about inoculation strategies
What is an inoculation? --> vaccination
Why might we need a strategy; Why wouldn’t we just inoculate everyone?

Flue shots
“Normally I wait until November for my vaccination, unless the federal government declares an influenza emergency. Then the resulting vaccine shortage means I get left out entirely, since I’m . . . not on the priority list . . .”

-This year there does not seem to be a shortage of flu vaccines-- who remembers H1N!

**H1N1**

The groups chosen for priority vaccination by the Advisory Committee on Immunization Practices (ACIP) were estimated to include 159 million people. They included pregnant women, close contacts of infants younger than 6 months, healthcare and emergency medical services workers, people between 6 months and 24 years old, and adults between 25 and 64 with certain medical conditions. The ACIP also suggested a narrower group in case supplies ran short; this excluded healthy young people older than 4 years, and it dropped the 25- to 64-year-old group with medical conditions.
HAITI - Cholera outbreak (small intestine bacteria disease)

The Pan American Health Organization said 4,147 people have been infected and 292 have died from the outbreak, which was first detected last week. . .PAHO said Wednesday it's not recommending widespread vaccinations against cholera because multiple doses are required, meaning it would take too long to provide protection in the middle of an outbreak. But health authorities are evaluating preemptive vaccinations in areas that cholera hasn't reached yet.

Now Let’s say you have 40 vaccinations, I’m going to do an example for you and I want you to follow my lead.

So how many Kids should I vaccinate?

How many adults should I vaccinate?

How many vaccinations does that leave for Oldsters?

Now let’s run it twice . . . . Now let’s take the average.

Did we do better or worse than when we didn’t vaccinate at all?

Now I want you guys to try some strategies, do them 4 times, take the average and see How many live and how many die. Fill out your worksheets-- You can use the calculator on your computer to average, and we’ll talk more about it after you’re done. . .