Model Structure: Team 1

- SEIRHD
  - use average ages among possible health outcomes
  - consider recovery with and without complications:
    - additional recovery category
    - % with complications: 10% have complications, 20% have complications (if hospitalized)
      - total recovered (un-hospitalized): 10000
        - 1000 recovered with complications
        - 9000 recovered without complications
      - total recovered (hospitalized): 2000
        - 400 recovered with complications
        - 1600 recovered without complications

Model Structure: Team 1

- Need to do:
  - find % of people who have complications
  - model structure: SEIRHD
  - model equations: almost the same as the equations on the slide
    - add dV equation, add additional parameters
  - modify code: almost the same as the example code

  - find averages ages for possible health outcomes
  - find QALY estimates for these health outcomes

Cost Estimation: Health Impact/Benefit

- Health benefits depend on number of years person is affected
  - example: Rachel is 38, leg is crushed in car accident, Rachel loses a leg
    - 0.6 is impact of losing a leg
    - life expectancy is 70
    - losing a leg at age 38 is better than losing a leg age 10 because a 38 year old lives 32 years without a leg, but 10 year old lives 60 years without a leg

Health Impacts: Ways to Calculate

- age groups in model

- average age

- calculating health impacts with average ages
  - life expectancy for Bangladesh: 72 years
  - possible health impacts in our model:
    - recovered from mild infection: children and younger (average age 20)
    - died without hospitalization: ?
    - recovered from severe infection: middle-aged (average age 50)
    - died in hospital: very old (average age 71)

Health Impacts: Ways to Calculate

- calculating health impacts with average ages
  - life expectancy for Bangladesh: 72 years
  - possible health impacts in our model:
    - recovered from mild infection: children and younger (20)
    - died without hospitalization: ?
    - recovered from severe infection: middle-aged (50)
    - died in hospital: very old (71)
- measure of health impact (QALY) weight
  - deaths: 0
  - complications: 0.75
  - hospitalization: 0.5
  - full recovery, no complication: 0.95