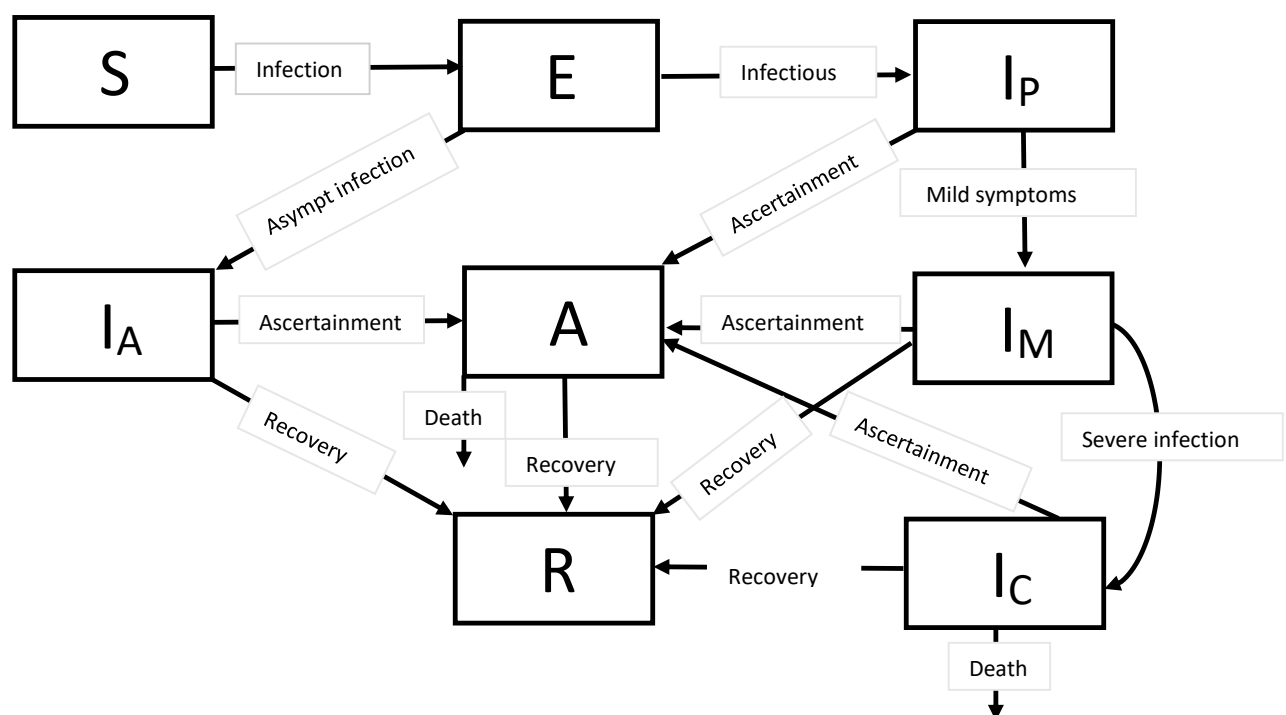## Model Compartments

1. Susceptibles (S)
2. Exposed (E)
3. Infectious pre-symptomatic (I_P)
4. Infectious Asymptomatic (I_A)
5. Infectious Mild (I_M)
6. Infectious Severe/Critical (I_C)
7. Ascertained (A)
8. Recovered (R)

Model assumptions

Note: model as currently described only has one "A" class, but we are planning to split "A" into A_A, A_p, A_M, and A_C

- Some infections are completely asymptomatic.
- "Symptomatic" infections begin without symptoms (I_P), then progress to mild symptoms (I_M). Some infections progress to severe symptoms, while others recover*.
- Only severe/critical infections die from Covid.
- Recovery with full and lasting immunity.

Next steps

Draw a flow diagram for the observation process (s).