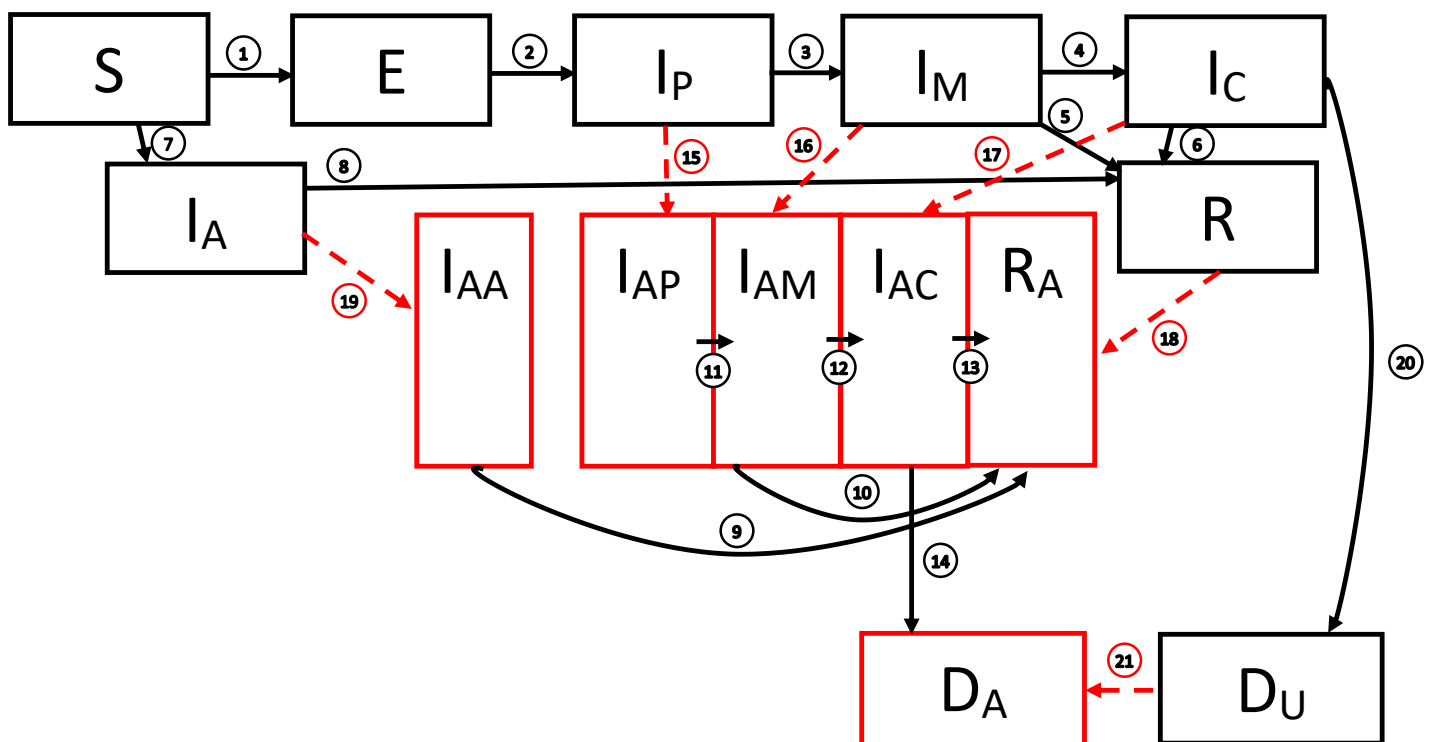


## Model Compartments

S - Susceptible  
 E - Exposed  
 I<sub>P</sub> - Infectious Pre-symptomatic  
 I<sub>A</sub> - Infectious Asymptomatic  
 I<sub>M</sub> - Infectious Mild  
 I<sub>C</sub> - Infectious severe/Critical  
 I<sub>AP</sub> - Ascertained Infectious Pre-symptomatic  
 I<sub>AA</sub> - Ascertained Infectious Asymptomatic  
 I<sub>AM</sub> - Ascertained Infectious Mild  
 I<sub>AC</sub> - Ascertained Infectious Severe/Critical  
 R<sub>A</sub> - Ascertained Recovered  
 R<sub>U</sub> - Un-ascertained Recovered



## Model assumptions

- Some infections are completely asymptomatic.
- “Symptomatic” infections begin without symptoms (I<sub>P</sub>), then progress to mild symptoms (I<sub>M</sub>). Some infections progress to severe symptoms, while others recover\*.
- Only severe/critical infections die from Covid.
- Recovery with full and lasting immunity.