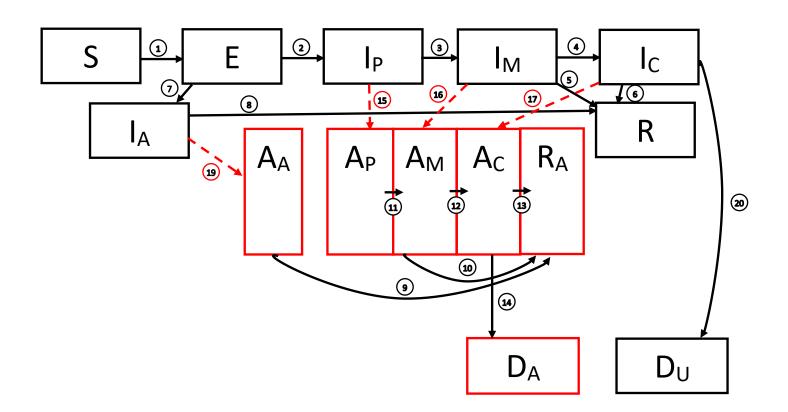
## **Model Compartments**

- **S** Susceptible
- E-Exposed
- IP Infectious Pre-symptomatic
- IA Infectious Asymptomatic
- IM Infectious Mild
- Ic Infectious severe/Critical
- A<sub>P</sub> Ascertained Infectious Pre-symptomatic
- A<sub>A</sub> Ascertained Infectious Asymptomatic
- A<sub>M</sub> Ascertained Infectious Mild
- Ac Ascertained Infectious Severe/Critical
- RA Ascertained Recovered
- $R_{\text{U}}$  Un-ascertained Recovered



## Model assumptions

- 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 gives full and lasting immunity.