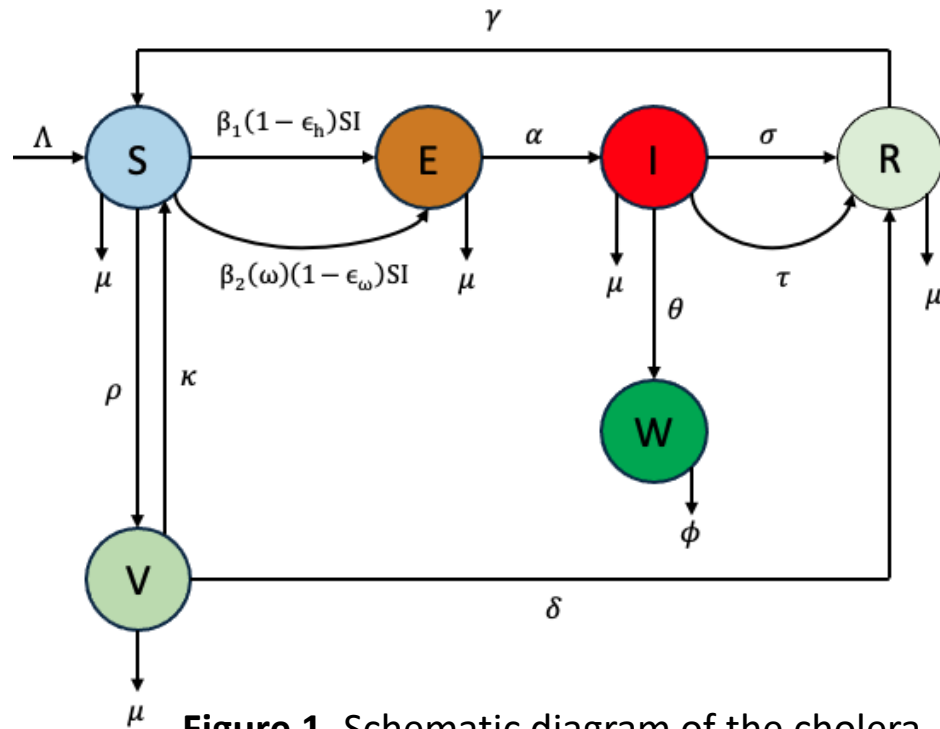


# Description of model diagram



**Figure 1.** Schematic diagram of the cholera transmission model.

## Compartments:

S : Susceptible individuals      R : Recovery individuals  
 V : Vaccinated individuals  
 E : Exposed individuals  
 I : Infected individuals  
 W : What does w mean??

## Parameters:

$\Lambda$  : Total individuals  
 $\mu$  : rate of per capita natural death  
 $\rho$  : rate of susceptible individual to be vaccinated  
 $\kappa$  : rate of vaccinated individual to be susceptible  
 $\delta$  : rate of vaccinated individual to be recovered  
 $\alpha$  : rate of exposed individual to be infected  
 $\sigma$  : rate of infected individual to be recovered  
 $\theta$  : rate of infected individual to move to W compartment  
 $\gamma$  : rate of recovered individual to move to susceptible compartment  
 $\beta_1$  : rate of transmission of cholera

$\beta_2(\omega)$ : ??

$\epsilon_h$ : ??

$\epsilon_\omega$ : ??

$\tau$ : ??

$\phi$ : ??