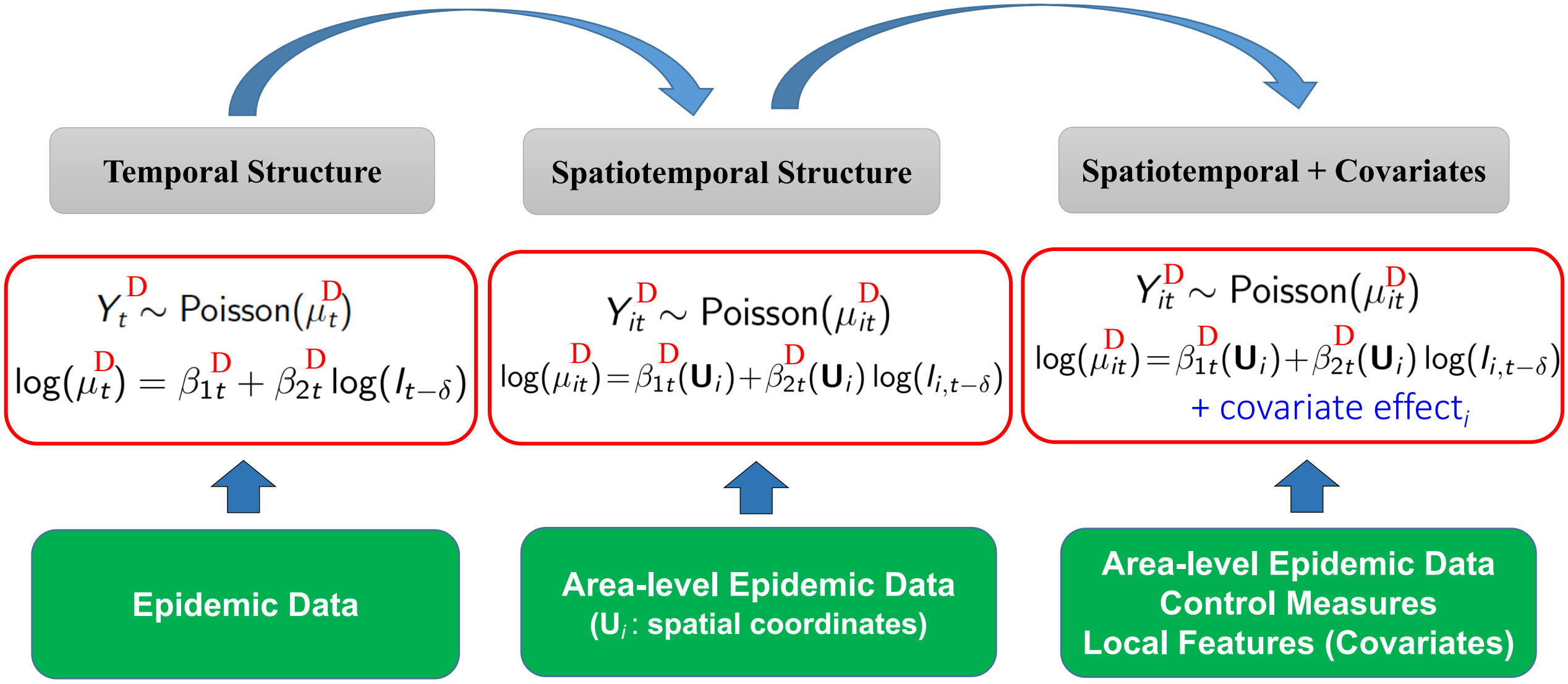
Temporal Structure
Spatiotemporal Structure
Spatiotemporal + Covariates
$Y_t^D \sim \text{Poisson}(\mu_t^D)$
$\log(\mu_t^D) = \beta_{1t}^D + \beta_{2t}^D \log(I_{t-\delta})$
$Y_{it}^D \sim \text{Poisson}(\mu_{it}^D)$
$\log(\mu_{it}^D) = \beta_{1t}^D(\mathbf{U}_i) + \beta_{2t}^D(\mathbf{U}_i) \log(I_{i,t-\delta})$
$Y_{it}^D \sim \text{Poisson}(\mu_{it}^D)$
$\log(\mu_{it}^D) = \beta_{1t}^D(\mathbf{U}_i) + \beta_{2t}^D(\mathbf{U}_i) \log(I_{i,t-\delta})$
+ covariate effect$_i$
Epidemic Data
Area-level Epidemic Data
($\mathbf{U}_i$: spatial coordinates)
Area-level Epidemic Data
Control Measures
Local Features (Covariates)