Advantages and Disadvantages
Infectious Disease Modelling with an Equity Lens

"Disaggregated" or "Heterogeneous" infectious disease modelling refers to models that divide a large population into subpopulations.

Opportunities

- Finer scale predictions can be made based on specific subpopulations
- Parameter estimates can be more reliable than aggregate models derived from the same data
- Population averages are not homogeneously applied at the subgroup level, but results at the subgroup level can be considered when modelling large populations as a whole.
- Collaboration is encouraged to contextualize differences in subpopulations
- Equitable policies and interventions can be developed

Challenges

- Adequate data may not be readily available
- Adjusted scope may result in computationally expensive and potentially complex models
- Model results and parameters may not be applicable to other populations
- Model results require mindful interpretation so they cannot be used to support discriminatory policies