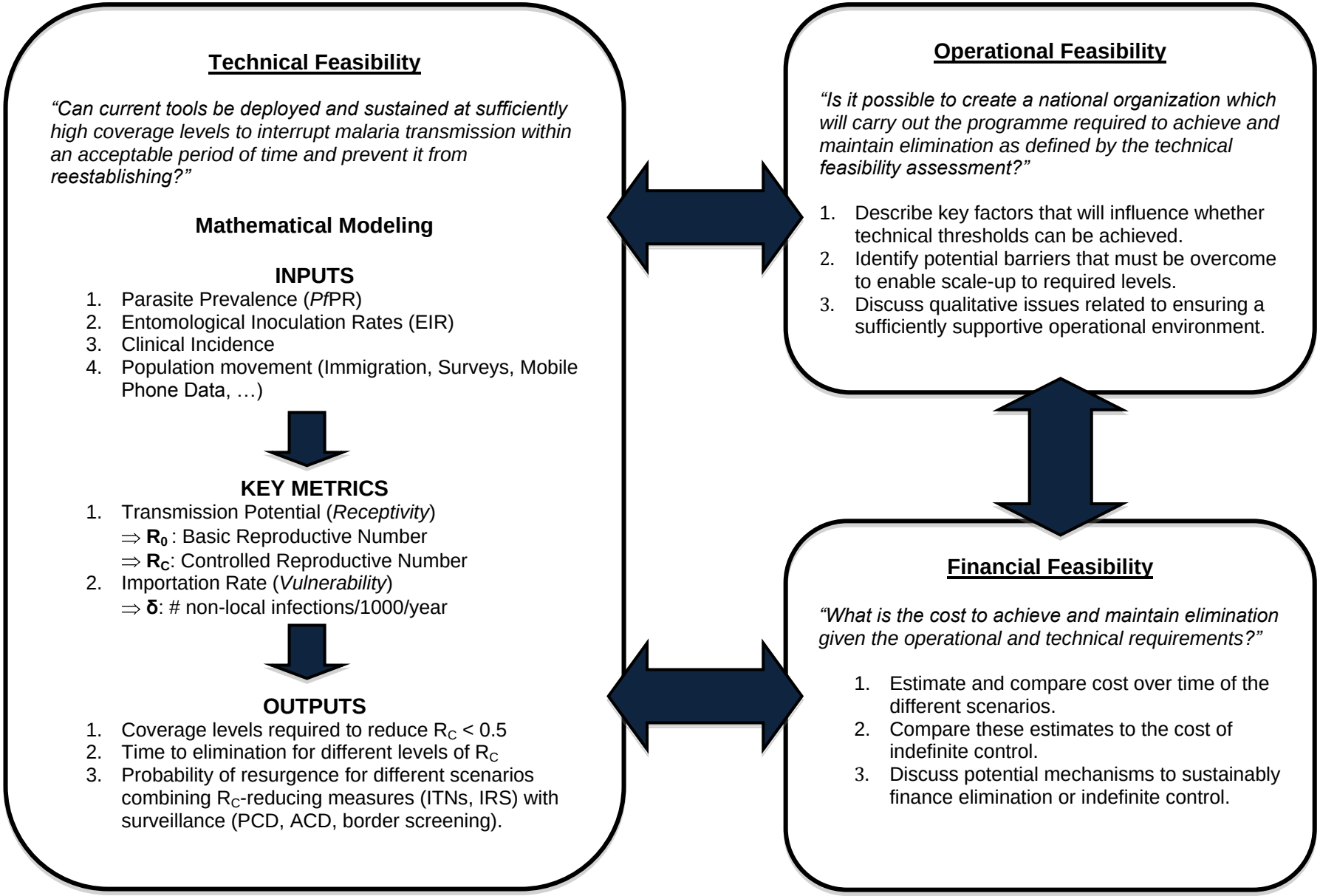
Technical Feasibility
"Can current tools be deployed and sustained at sufficiently high coverage levels to interrupt malaria transmission within an acceptable period of time and prevent it from reestablishing?"
Mathematical Modeling
INPUTS
1. Parasite Prevalence (PfPR)
2. Entomological Inoculation Rates (EIR)
3. Clinical Incidence
4. Population movement (Immigration, Surveys, Mobile Phone Data, …)
KEY METRICS
1. Transmission Potential (Receptivity)
⇒ R0 : Basic Reproductive Number
⇒ RC: Controlled Reproductive Number
2. Importation Rate (Vulnerability)
⇒ δ: # non-local infections/1000/year
OUTPUTS
1. Coverage levels required to reduce RC < 0.5
2. Time to elimination for different levels of RC
3. Probability of resurgence for different scenarios combining RC-reducing measures (ITNs, IRS) with surveillance (PCD, ACD, border screening).
Operational Feasibility
"Is it possible to create a national organization which will carry out the programme required to achieve and maintain elimination as defined by the technical feasibility assessment?"
1. Describe key factors that will influence whether technical thresholds can be achieved.
2. Identify potential barriers that must be overcome to enable scale-up to required levels.
3. Discuss qualitative issues related to ensuring a sufficiently supportive operational environment.
Financial Feasibility
"What is the cost to achieve and maintain elimination given the operational and technical requirements?"
1. Estimate and compare cost over time of the different scenarios.
2. Compare these estimates to the cost of indefinite control.
3. Discuss potential mechanisms to sustainably finance elimination or indefinite control.