

Disease Transmission Events Analysis

Single-Facility Analysis

2025-10-29

Data Summary

Total transmission events: 5959

Unique source patients: 3935

Unique recipient patients: 5625

Total unique patients involved: 7528

Simulation period: Day 22 to Day 5275

Total days: 5254

Effective reproductive rate (R_e): 1.514

Descriptive Statistics

Daily Transmission Events Summary

Table 1: Descriptive Statistics for Daily Transmission Events

Mean	Median	SD	Min	Max	Q1	Q3	IQR
1.67	1	0.89	1	7	1	2	1

Effective Reproductive Rate Analysis

Table 2: Effective Reproductive Rate Statistics

	Value
Mean R_e per source	1.514
Median R_e per source	1.000
SD R_e per source	0.868
Min R_e per source	1.000
Max R_e per source	9.000

	Value
Overall Re	1.514

Patient Transmission Activity

Table 3: Distribution of Transmissions Caused per Source Patient (Top 10)

Transmissions Caused	Number of Patients	Percentage
1	2569	65.3
2	924	23.5
3	302	7.7
4	92	2.3
5	27	0.7
6	17	0.4
7	2	0.1
8	1	0.0
9	1	0.0

Table 4: Distribution of Infections Received per Recipient Patient (Top 10)

Infections Received	Number of Patients	Percentage
1	5346	95.0
2	239	4.2
3	29	0.5
4	7	0.1
5	4	0.1

Visualizations

Reproductive Rate Distribution

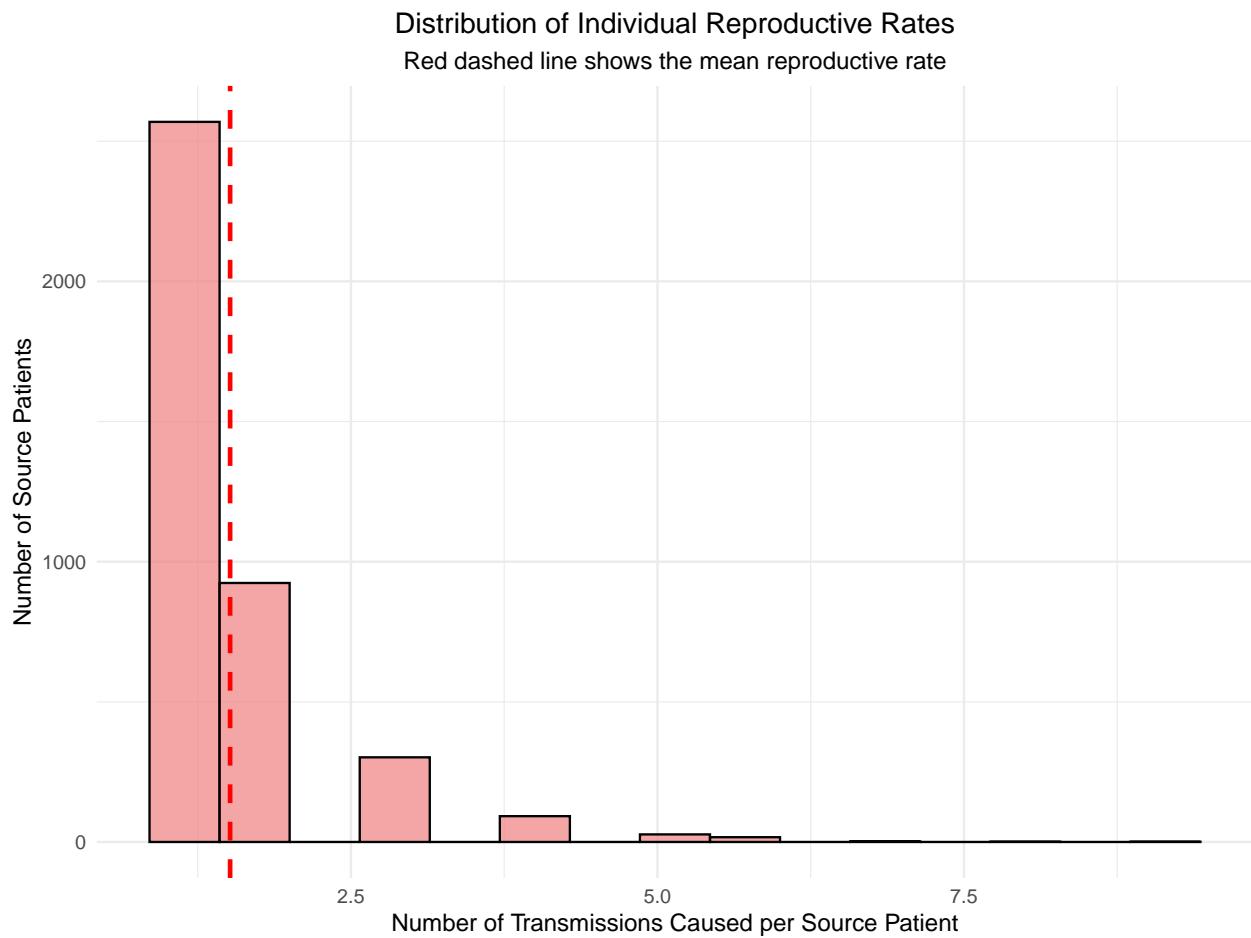


Figure 1: Distribution of Individual Reproductive Rates

Distribution of Daily Transmission Events

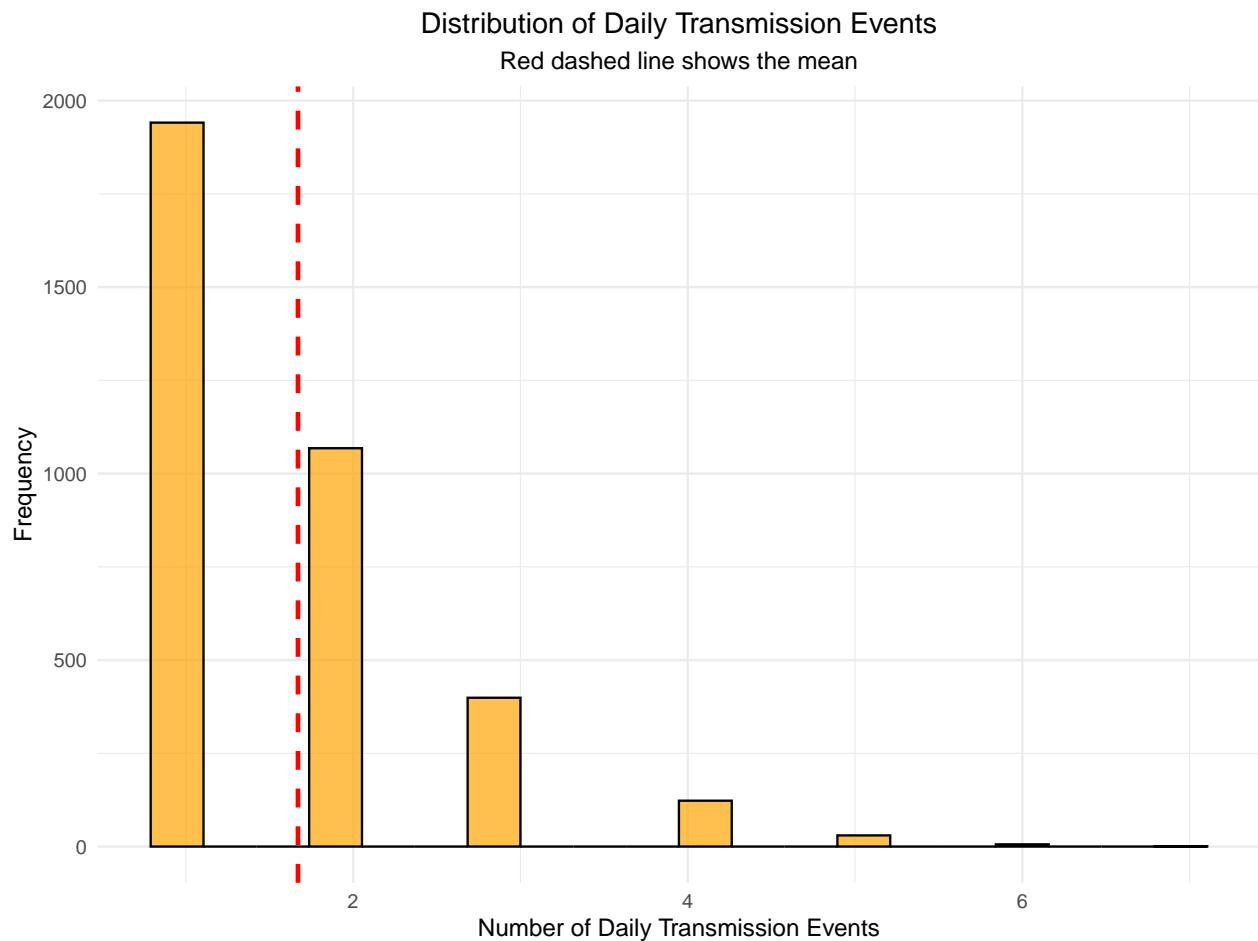


Figure 2: Distribution of Daily Transmission Events

Transmission Network Degree Distribution

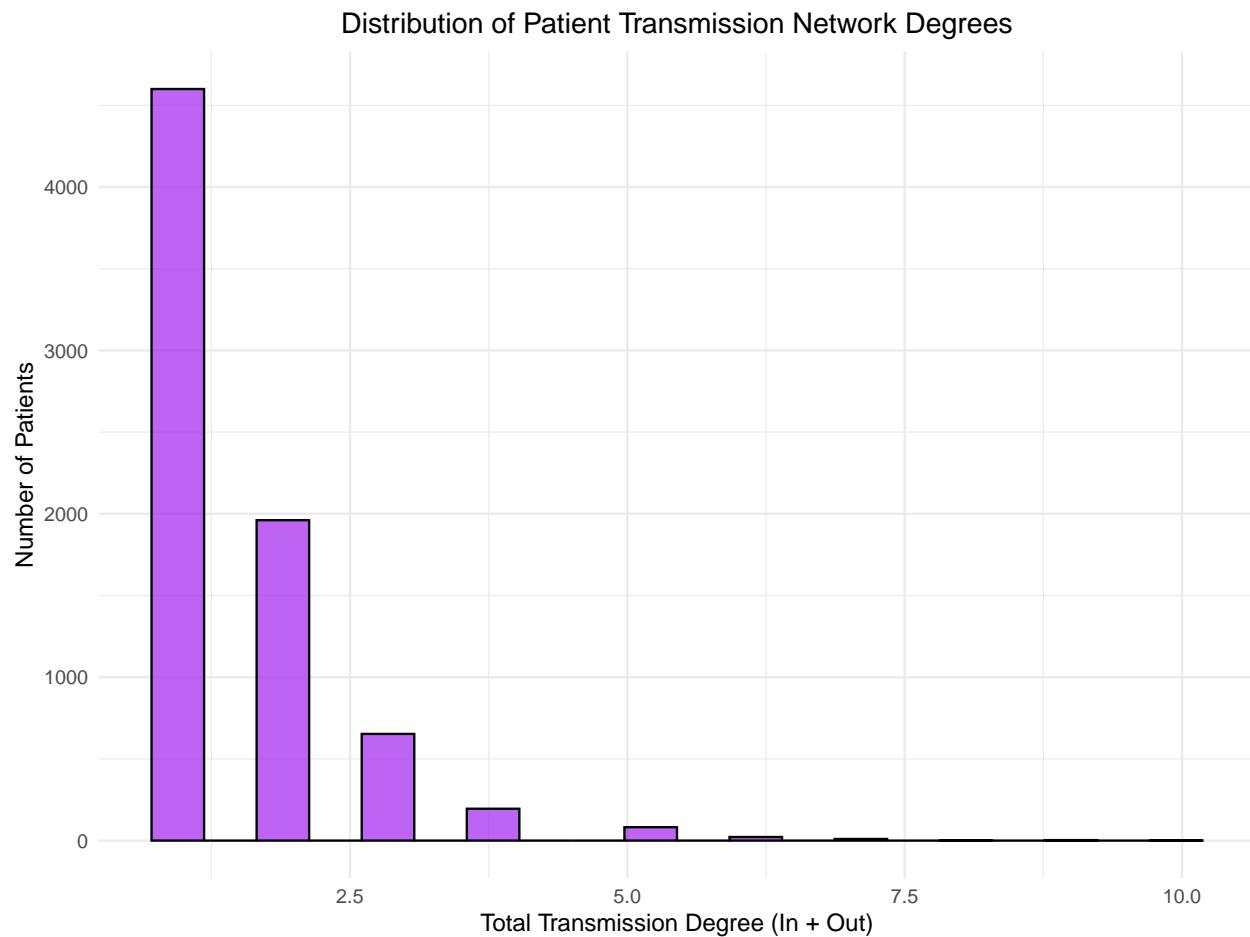


Figure 3: Distribution of Patient Transmission Degrees