

Disease Transmission Events Analysis

Single-Facility Analysis

2025-09-12

Data Summary

Total transmission events: 5953

Unique source patients: 3853

Unique recipient patients: 5740

Total unique patients involved: 7680

Simulation period: Day 11 to Day 5314

Total days: 5304

Effective reproductive rate (R_e): 1.545

Descriptive Statistics

Daily Transmission Events Summary

Table 1: Descriptive Statistics for Daily Transmission Events

Mean	Median	SD	Min	Max	Q1	Q3	IQR
1.69	1	0.91	1	7	1	2	1

Effective Reproductive Rate Analysis

Table 2: Effective Reproductive Rate Statistics

	Value
Mean R_e per source	1.545
Median R_e per source	1.000
SD R_e per source	0.883
Min R_e per source	1.000
Max R_e per source	9.000

	Value
Overall Re	1.545

Patient Transmission Activity

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

Transmissions Caused	Number of Patients	Percentage
1	2437	63.2
2	955	24.8
3	316	8.2
4	92	2.4
5	37	1.0
6	11	0.3
7	2	0.1
8	2	0.1
9	1	0.0

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

Infections Received	Number of Patients	Percentage
1	5550	96.7
2	169	2.9
3	19	0.3
4	2	0.0

Visualizations

Reproductive Rate Distribution

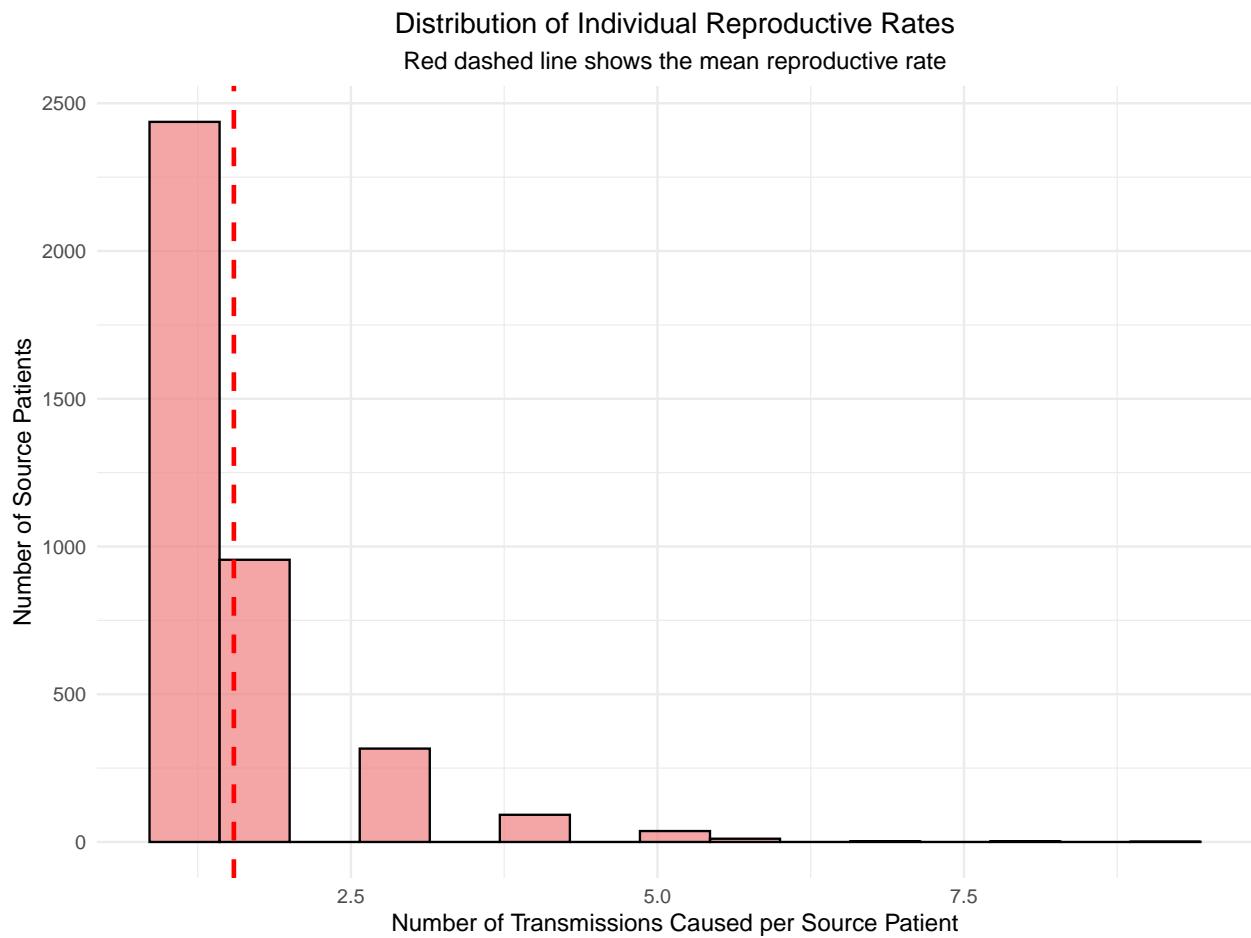


Figure 1: Distribution of Individual Reproductive Rates

Distribution of Daily Transmission Events

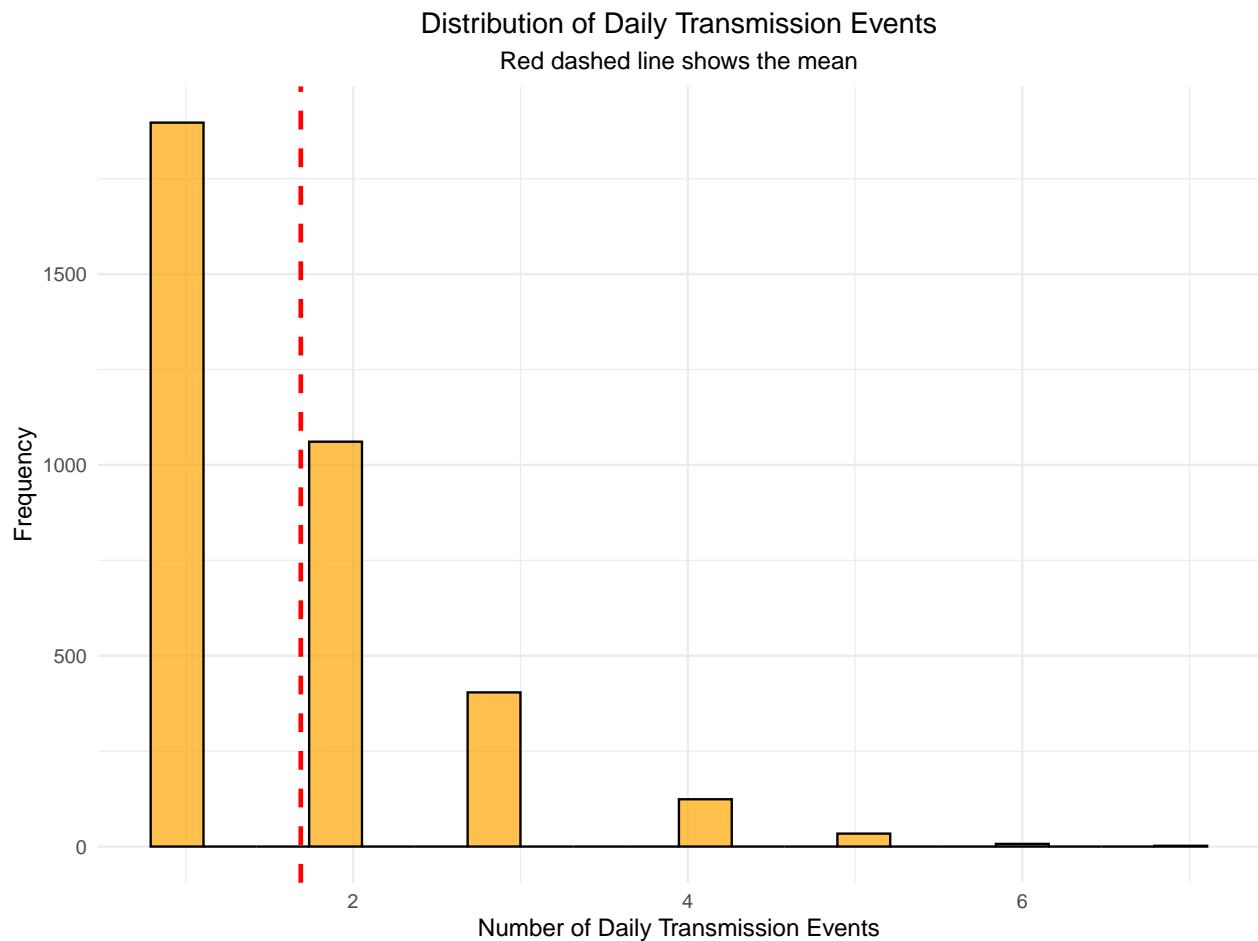


Figure 2: Distribution of Daily Transmission Events

Transmission Network Degree Distribution

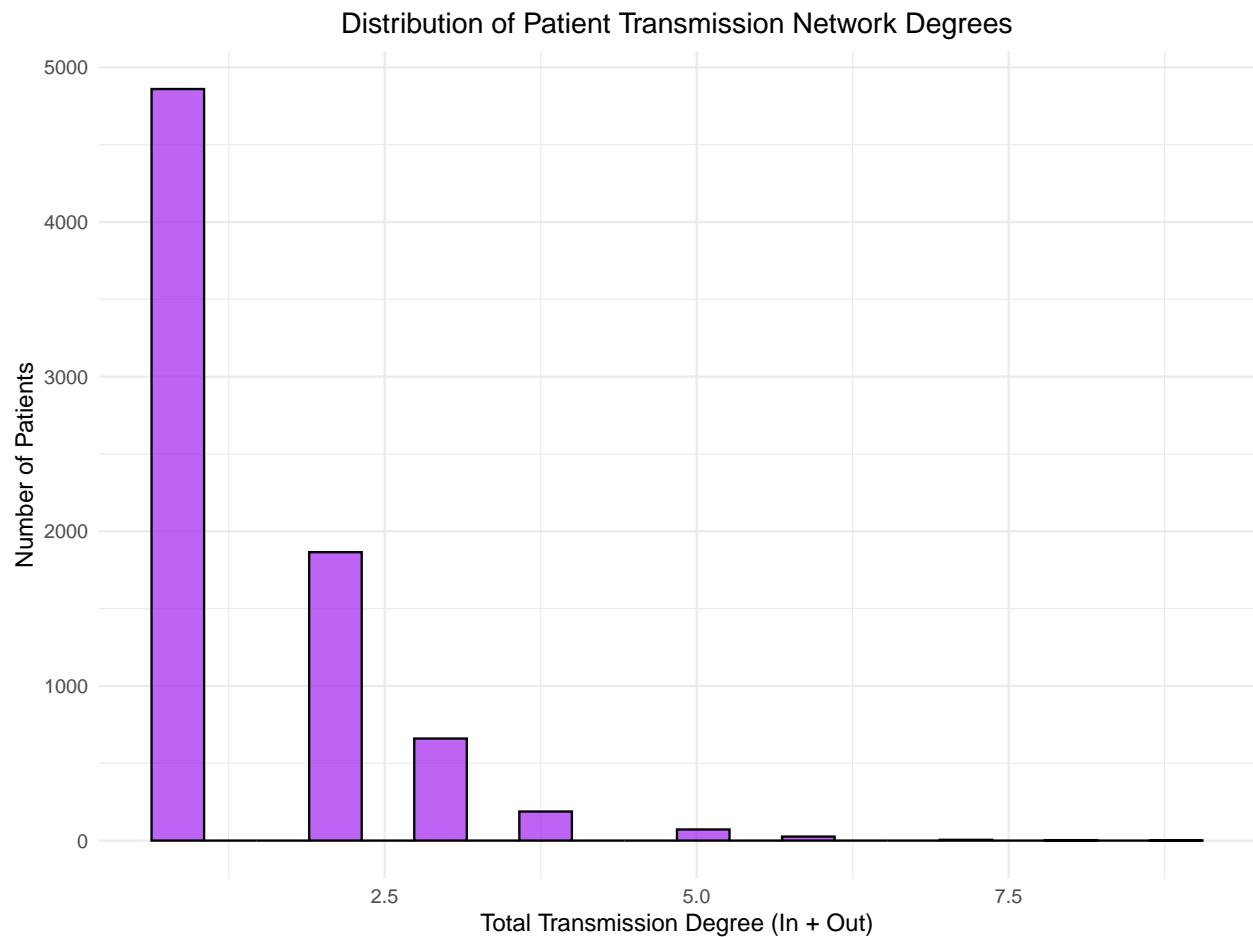


Figure 3: Distribution of Patient Transmission Degrees