

S1 Table. Network Characteristics of the Erdos-Renyi Random Networks

Network Topology Measures	HAI-Specific Network	100 HAI-Specific-like ER networks			Suspected-HAI Network	100 Suspected-HAI-like ER networks			General Network	100 General Network-like networks		
	Value	Mean	95% CI	P-value	Value	Mean	95% CI	P-value	Value	Mean	95% CI	P-value
Average Degree	5.88	5.88	5.88-5.88	1	19.05	19.05	19.05-19.05	1	48.50	48.50	48.50-48.50	1
Diameter	47	37.31	36.64-37.98	<0.001	64	27.83	27.43-28.23	<0.001	30	49.87	49.69-50.05	<0.001
Average Path Length	5.23	6.55	6.54-6.56	<0.001	3.63	3.618	3.618-3.619	<0.001	2.99	2.735	2.735-2.735	<0.001
Global Clustering Coefficient	0.08	0.0047	0.0045-0.0048	<0.001	0.16	0.0096	0.0095-0.0097	<0.001	0.23	0.02337	0.02334-0.0234	<0.001
Density	0.002	0.002	0.002-0.002	1	0.005	0.0048	1975-1975	1	0.012	0.012	0.012-0.012	1
Average Edge Betweenness	1556.94	3143.72	3128.89-3158.55	<0.001	852.23	989.39	988.07-990.70	<0.001	301.27	252.81	252.75-252.88	<0.001
Average Total Closeness	3.2e-5	9.3e-5	8.9e-5-9.7e-5	<0.001	7.4e-5	5.8e-5	5.79e-5-5.81e-5	<0.001	1.6e-4	1.89e-5	1.89e-5-1.90e-5	<0.001

S1 Table. Comparison of the healthcare network topology measures with the average measures of 100 simulated Erdos-Renyi (ER) networks that are parameterized with same number of nodes, edges, and Poisson-distributed average edge weight. For each measure, a t-test is conducted to compare the difference between the health network value and the average values of the ER networks with given 95% confidence intervals and p-values.