

Patient transfer patterns and the spread of hospital-acquired infections in subnetworks of a country: an example of federal states in Germany

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Supplementary Results

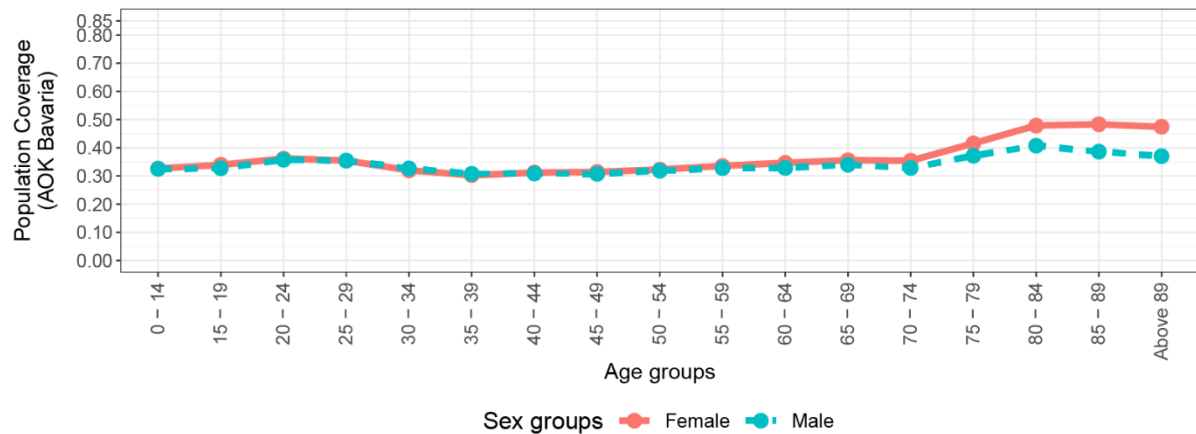


Figure S1. Proportions of the population covered by AOK according to different sex and age groups in Bavaria.

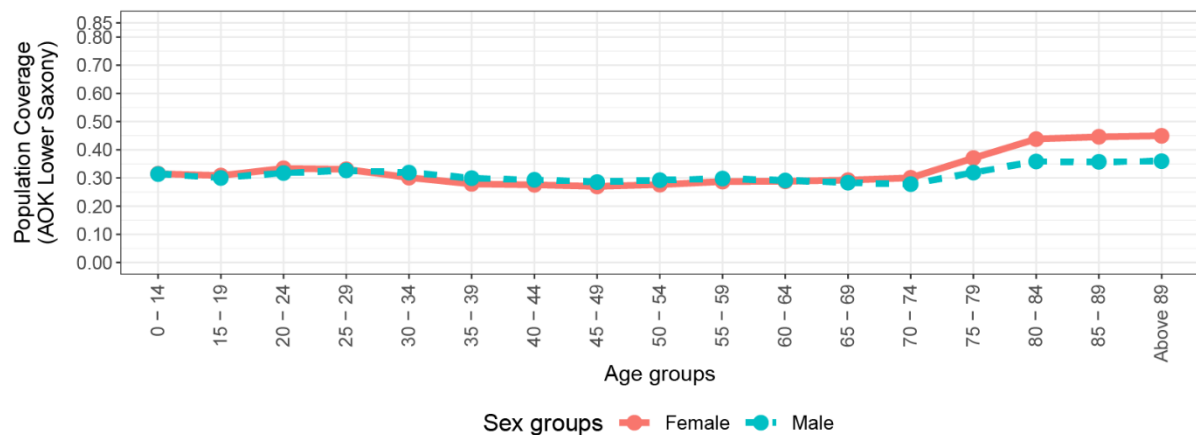


Figure S2. Proportions of the population covered by AOK according to different sex and age groups in Lower Saxony.

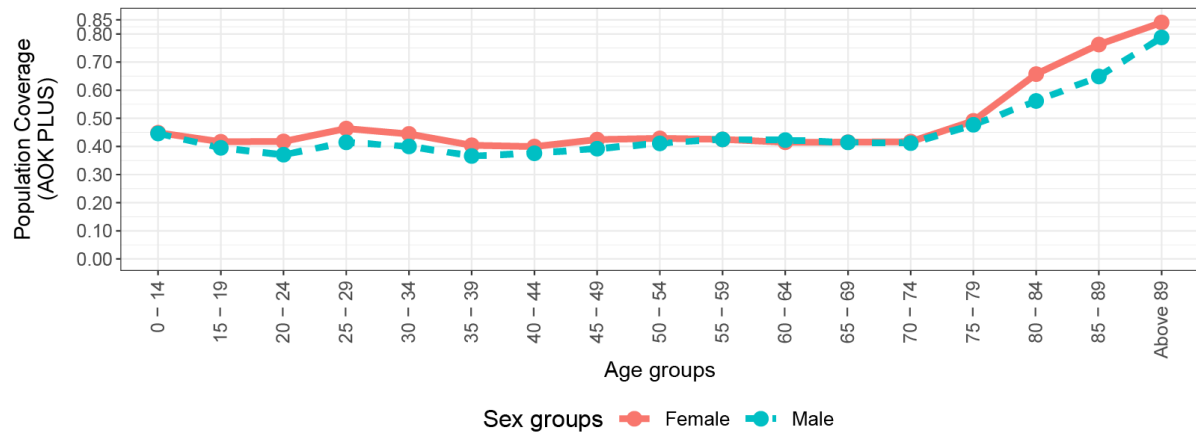


Figure S3. Proportions of the population covered by AOK according to different sex and age groups in Saxony and Thuringia.

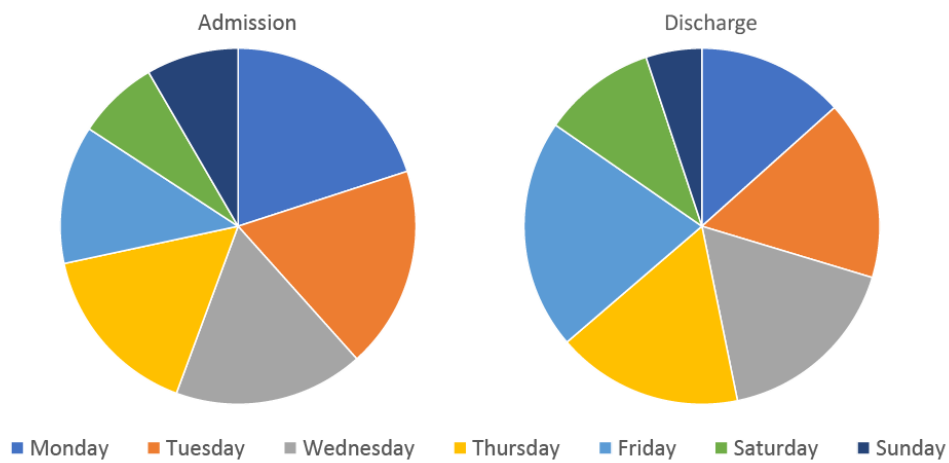


Figure S4. Hospital admissions and discharges on different days of the week based on federal scaled-up datasets.

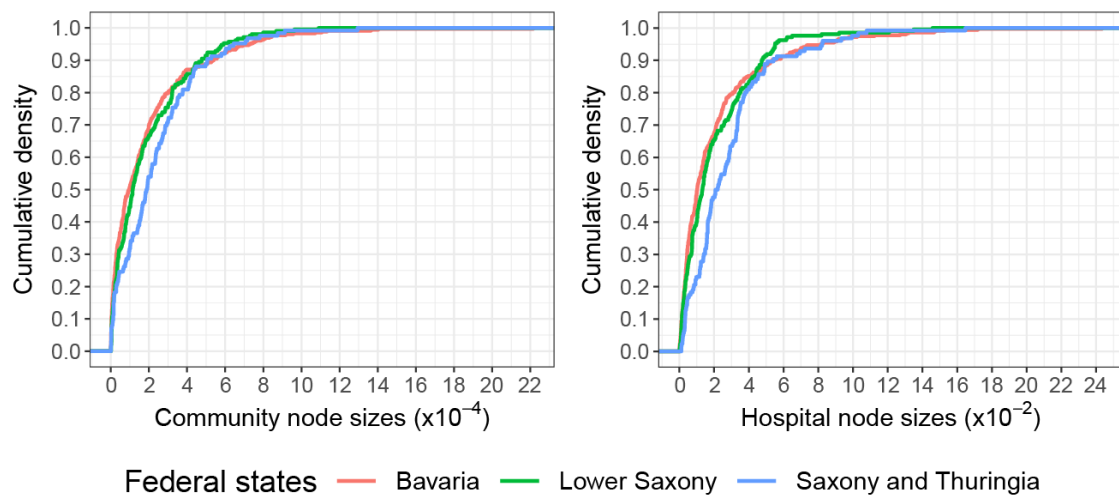


Figure S5. Cumulative distributions of hospital and community node sizes in different federal states based on federal scaled-up datasets.

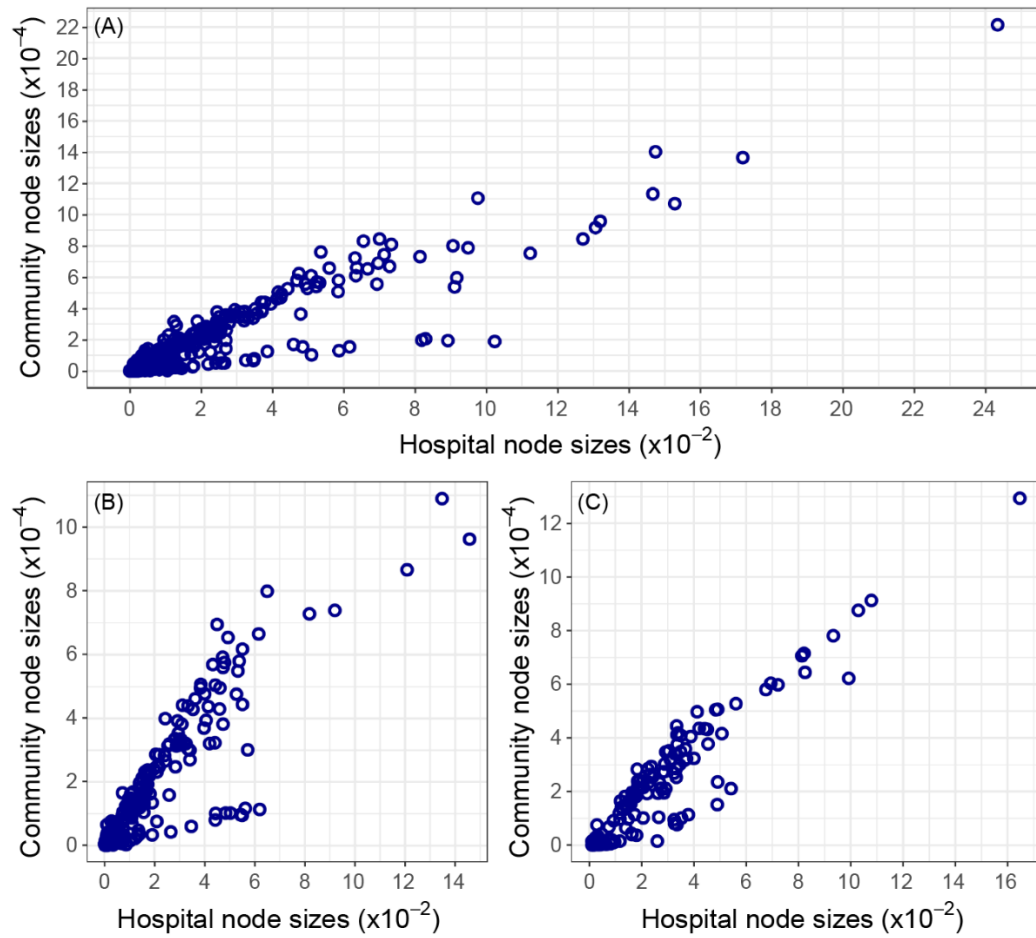


Figure S6. Dependencies of corresponding community node sizes on hospital node sizes in Bavaria (panel a), Lower Saxony (panel b), Saxony and Thuringia (panel c) based on federal scaled-up datasets.

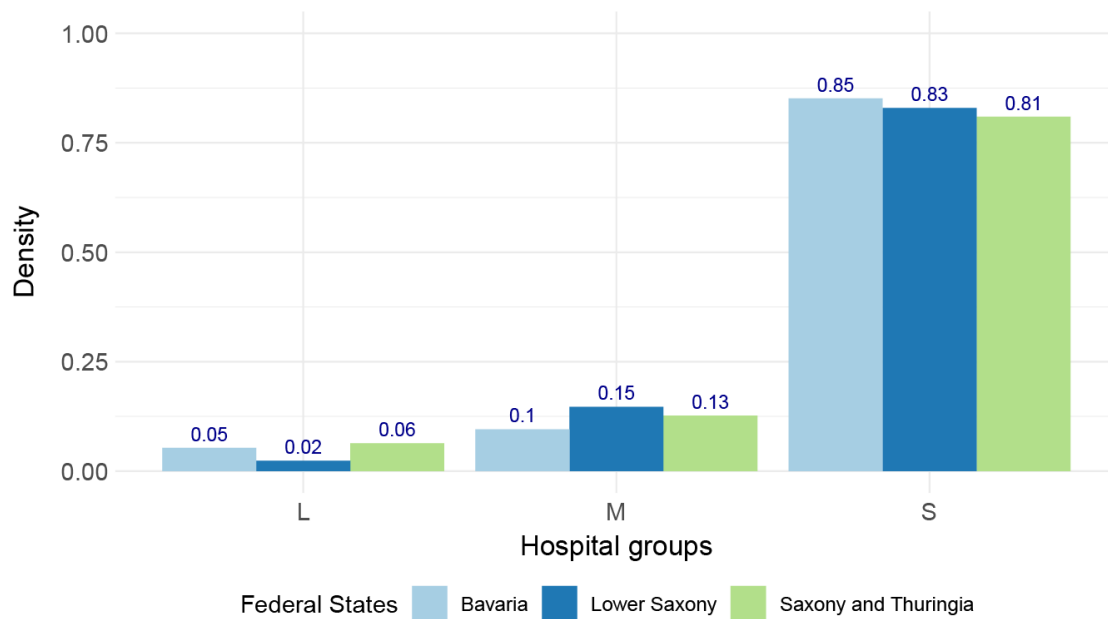


Figure S7. Proportions of hospitals according to hospital sizes L (Large), M (Medium), S (Small) by federal states based on federal scaled-up datasets.

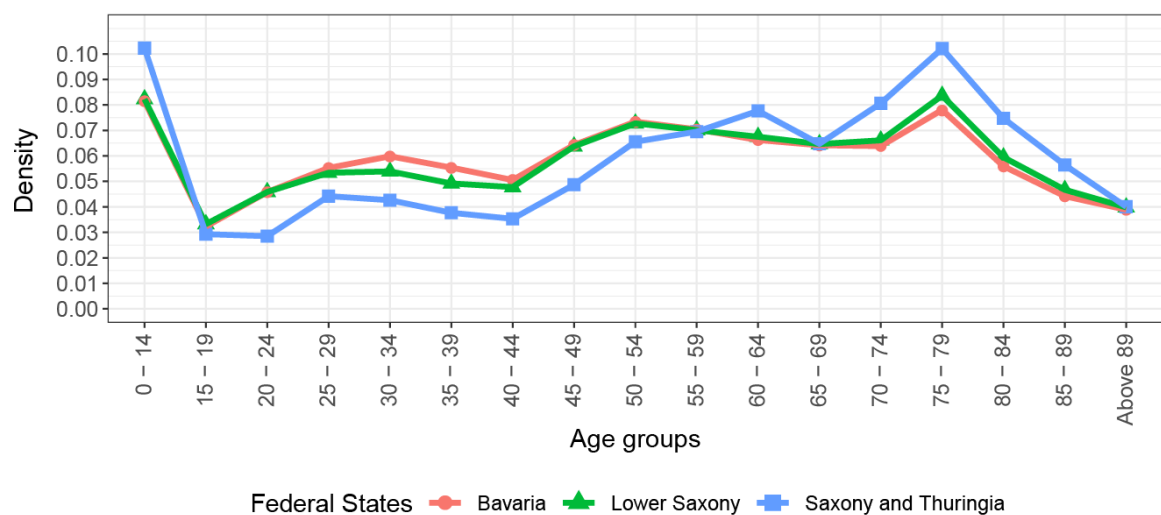


Figure S8. Distributions of admissions in the age groups by federal states based on federal scaled-up datasets.

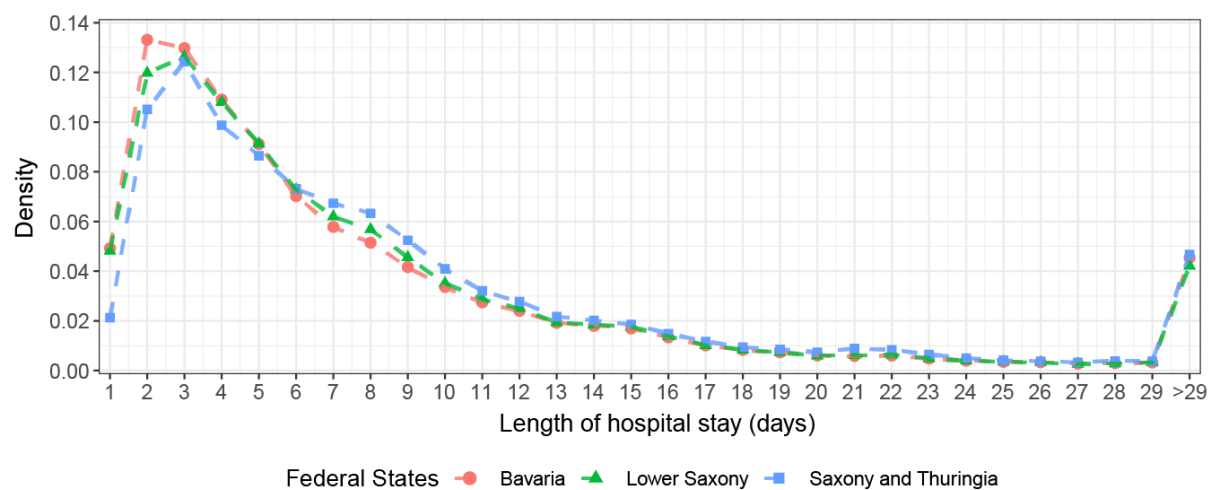


Figure S9. Distributions of the length of hospital stays by federal states based on federal scaled-up datasets.

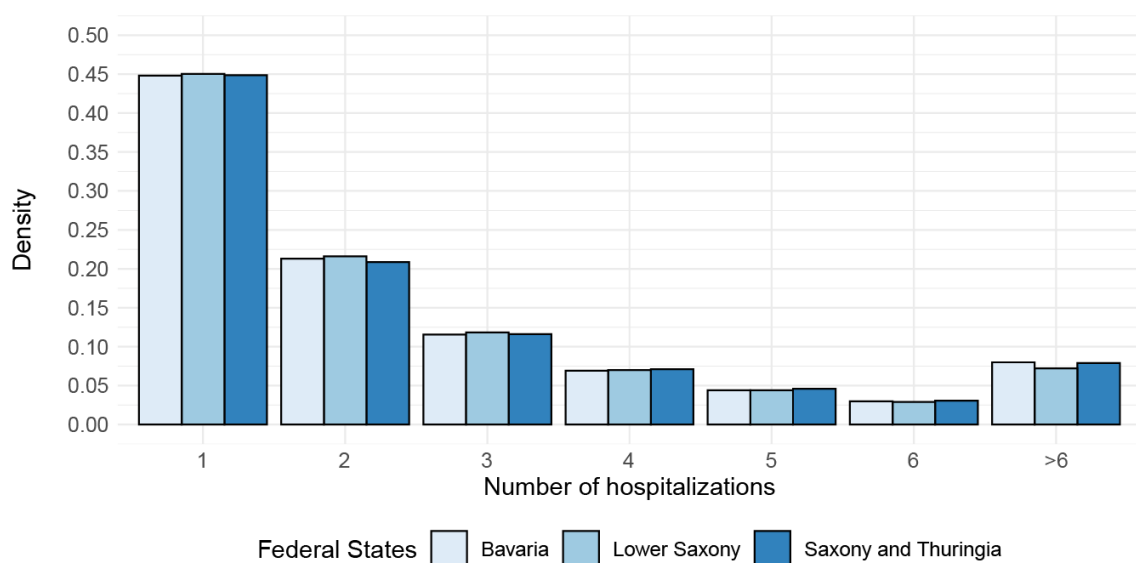


Figure S10. Distributions of the number of hospitalizations per person within six years by federal states based on federal scaled-up datasets.

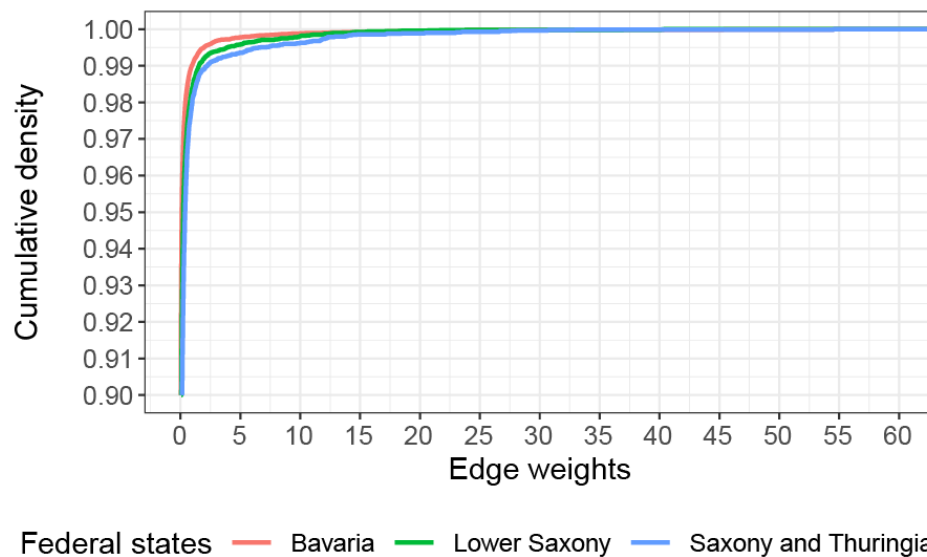


Figure S11. Cumulative distributions of edge weights in hospital networks by federal states based on federal scaled-up datasets.

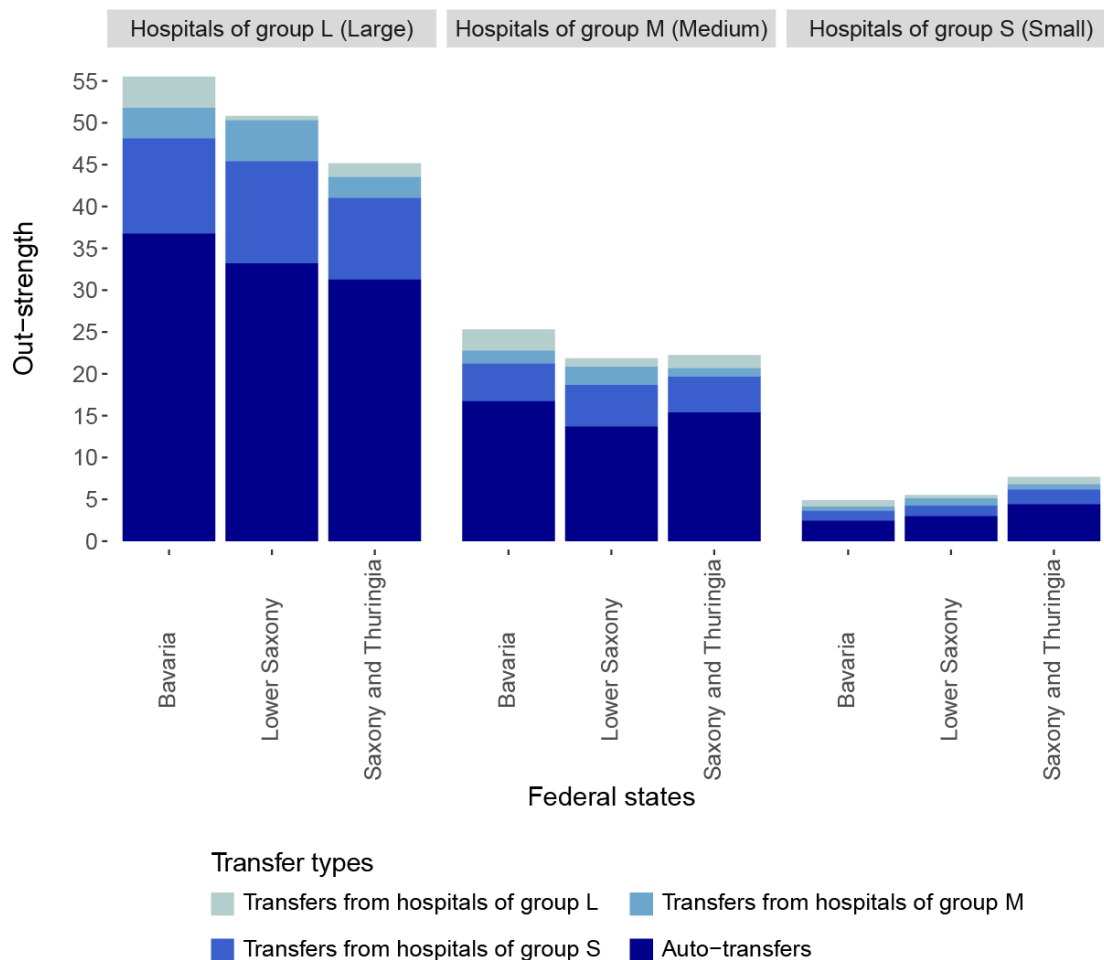


Figure S12. Distributions of in-strengths of each hospital originated from auto-transfers and from different hospitals, categorized by hospital sizes L (Large), M (Medium), S (Small). The x-axis represents the corresponding federal states.

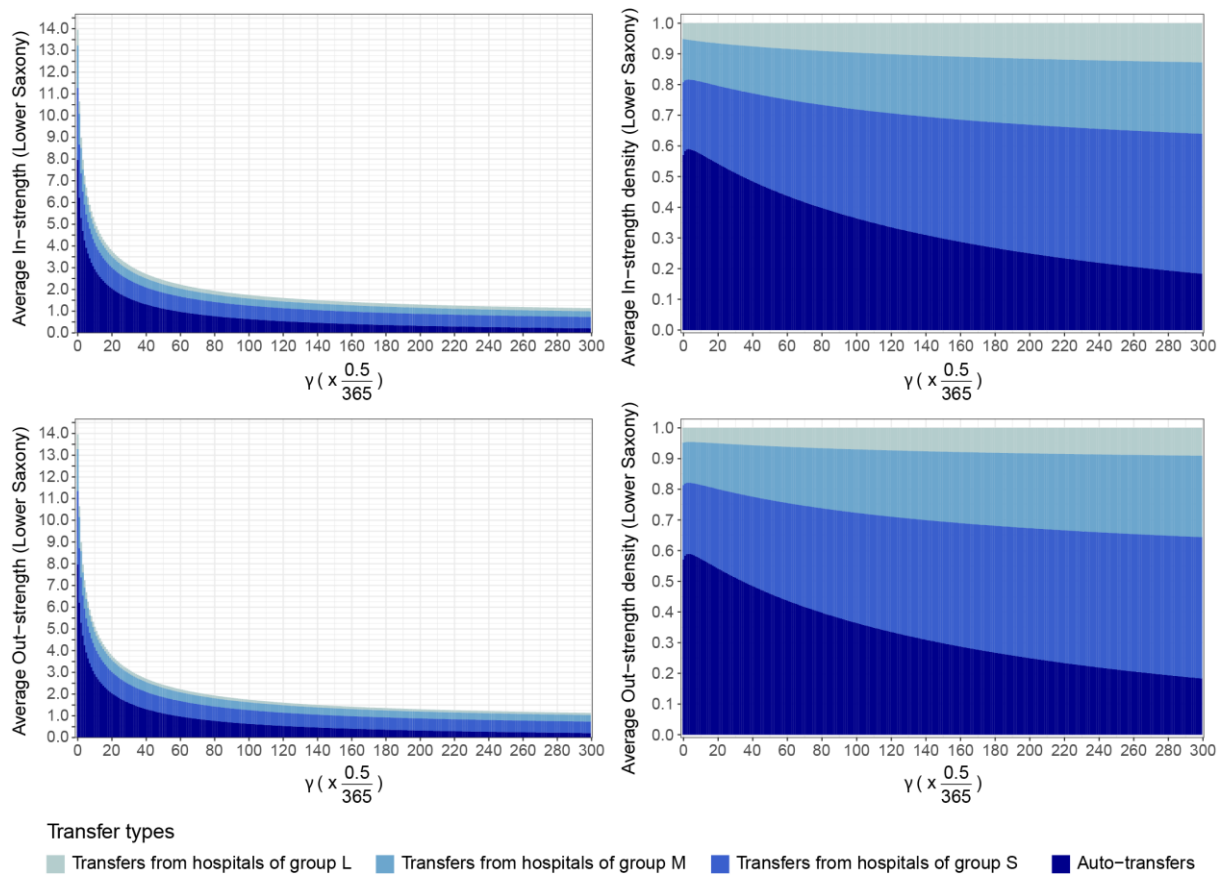


Figure S13. Distributions and density function of average in- and out-strengths of hospitals originated from auto-transfers and from hospitals categorized by hospital sizes (L, M, S) with varying colonization clearing rate γ in Lower Saxony.

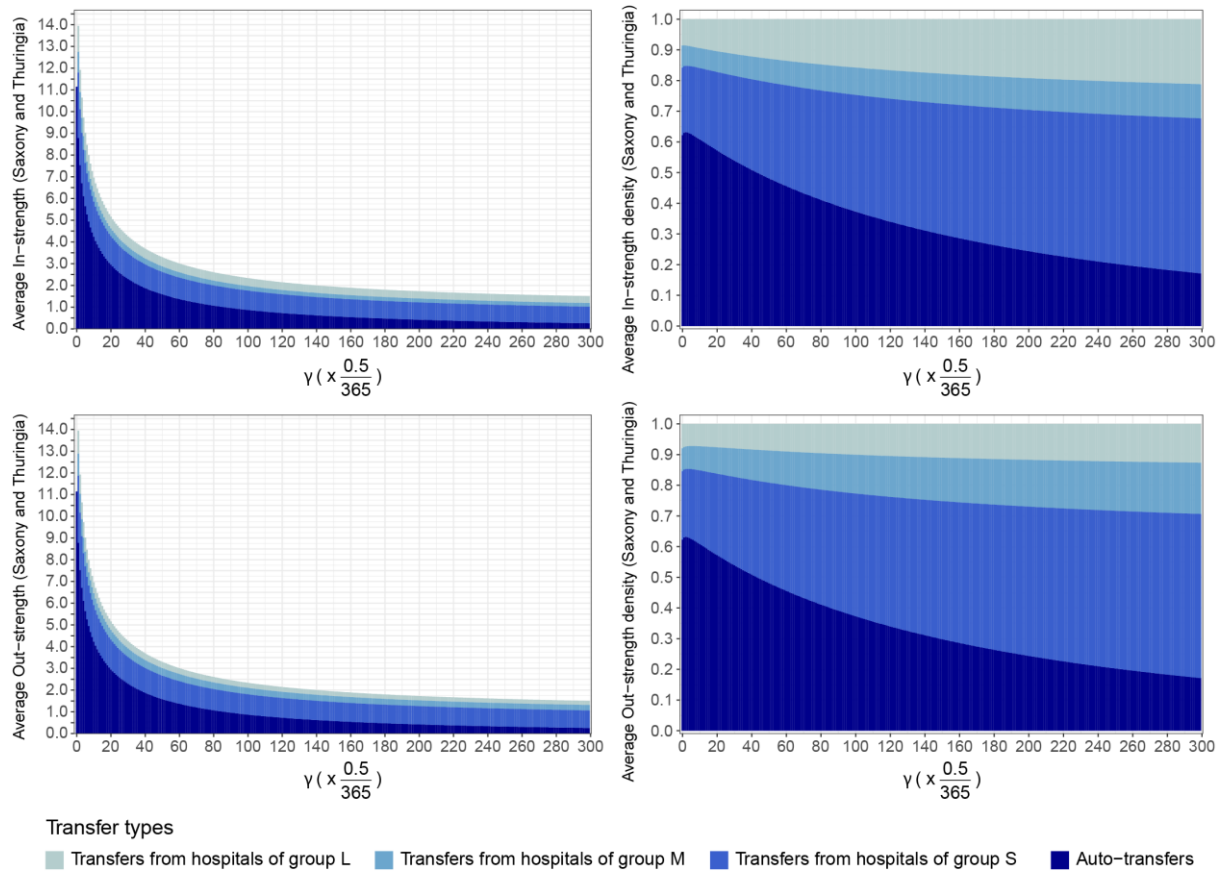


Figure S14. Distributions and density functions of average in- and out-strengths of hospitals originated from auto-transfers and from hospitals categorized by hospital sizes (L, M, S) with varying colonization clearing rate γ in Saxony and Thuringia.

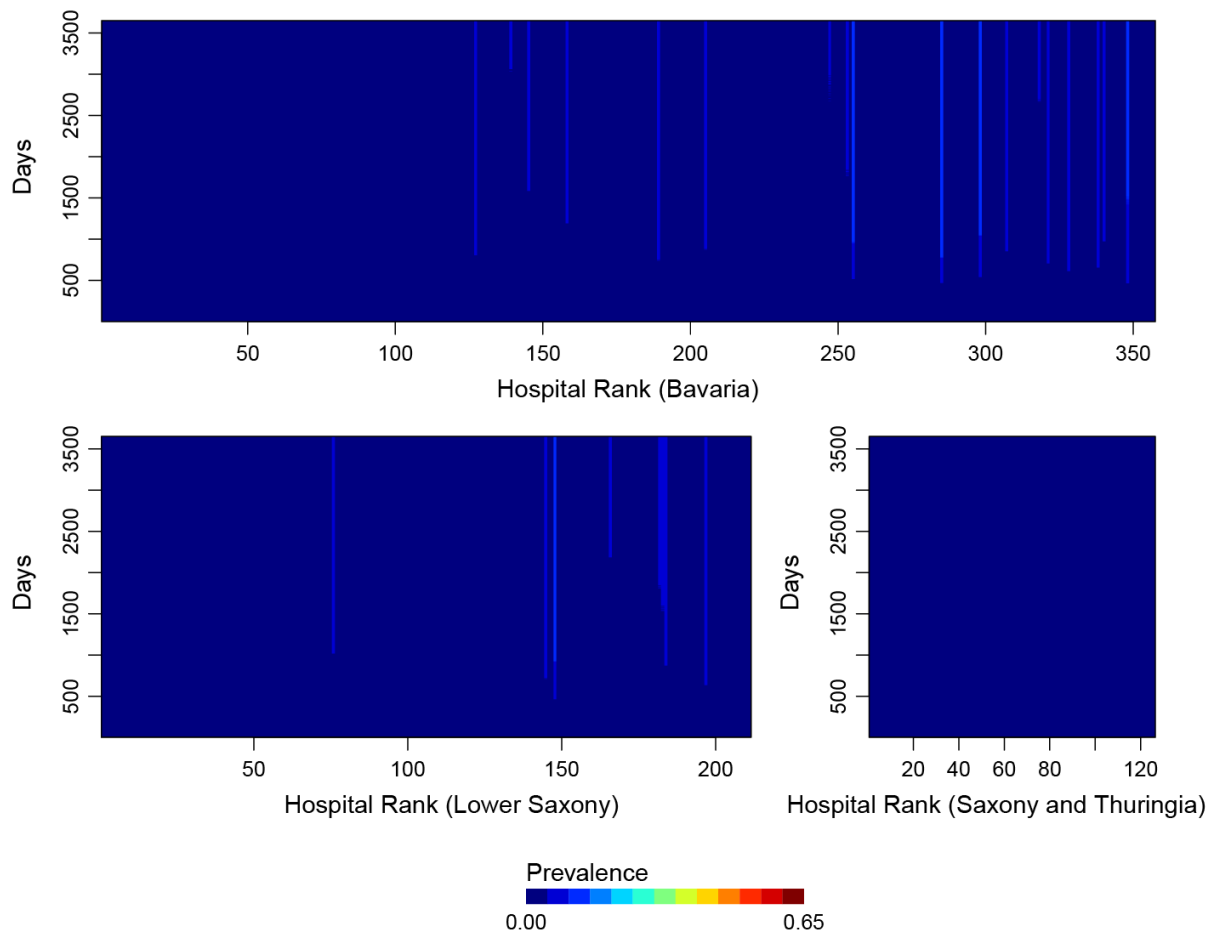


Figure S15. Daily prevalence at admission in single community nodes. The x-axis represents hospitals, ranked from largest to smallest (left to right) based on the average number of hospital beds that were occupied there per day.

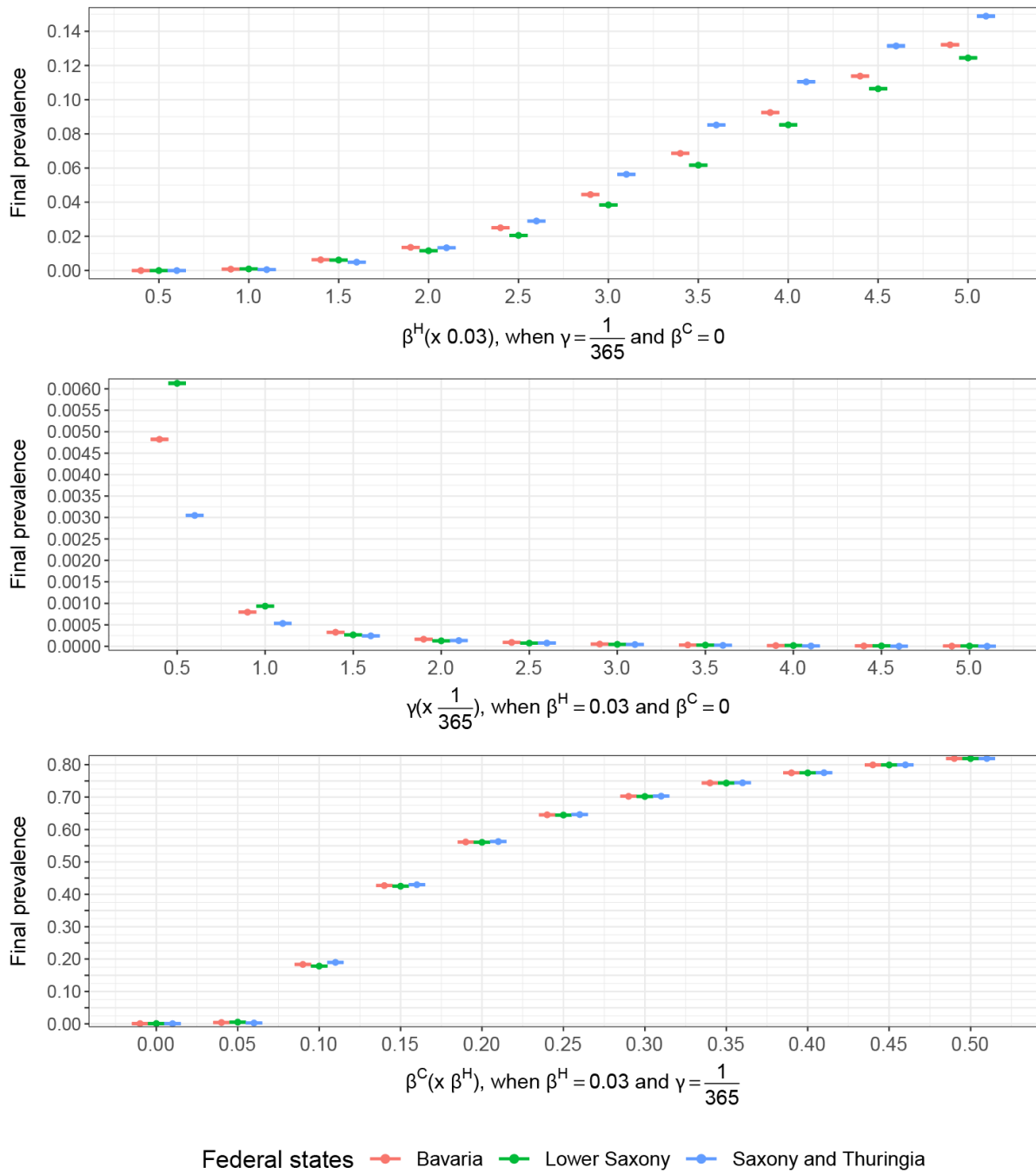


Figure S16. Final prevalence in community nodes for varying transmission parameters in the studied federal states. The upper and lower bars indicate the spread between the largest and lowest prevalence in the weekly patterns, with no variation between them, with bars converging to a single line. β^H and β^C are the transmission rate in hospitals and in community nodes, respectively. γ is the colonization clearing rate.