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# Comparison of weighted and unweighted network analysis in the case of a pig trade network in Northern Germany

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## Abstract

The analysis of trade networks as well as the spread of diseases within these systems focuses mainly on pure animal movements between farms. However, additional data included as edge weights can complement the informational content of the network analysis. However, the inclusion of edge weights can also alter the outcome of the network analysis. Thus, the aim of the study was to compare unweighted and weighted network analyses of a pork supply chain in Northern Germany and to evaluate the impact on the centrality parameters. Five different weighted network versions were constructed by adding the following edge weights: number of trade contacts, number of delivered livestock, average number of delivered livestock per trade contact, geographical distance and reciprocal geographical distance. Additionally, two

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