

# Social network analysis of *STAPHYLOCOCCUS AUREUS* carriage in a general youth population



Dina B Stensen, Rafael A Nozal Cañadas, Lars Småbrekke, Karina Olsen, Christopher Sivert Nielsen,  
Kristian Svendsen, Anne Merethe Hanssen, Johanna U Ericson, Gunnar Skov Simonsen, Lars Ailo Bongo,  
Anne-Sofie Furberg, PMID: 36057411 DOI: 10.1016/j.ijid.2022.08.018 dina.benedicte.stensen@unn.no

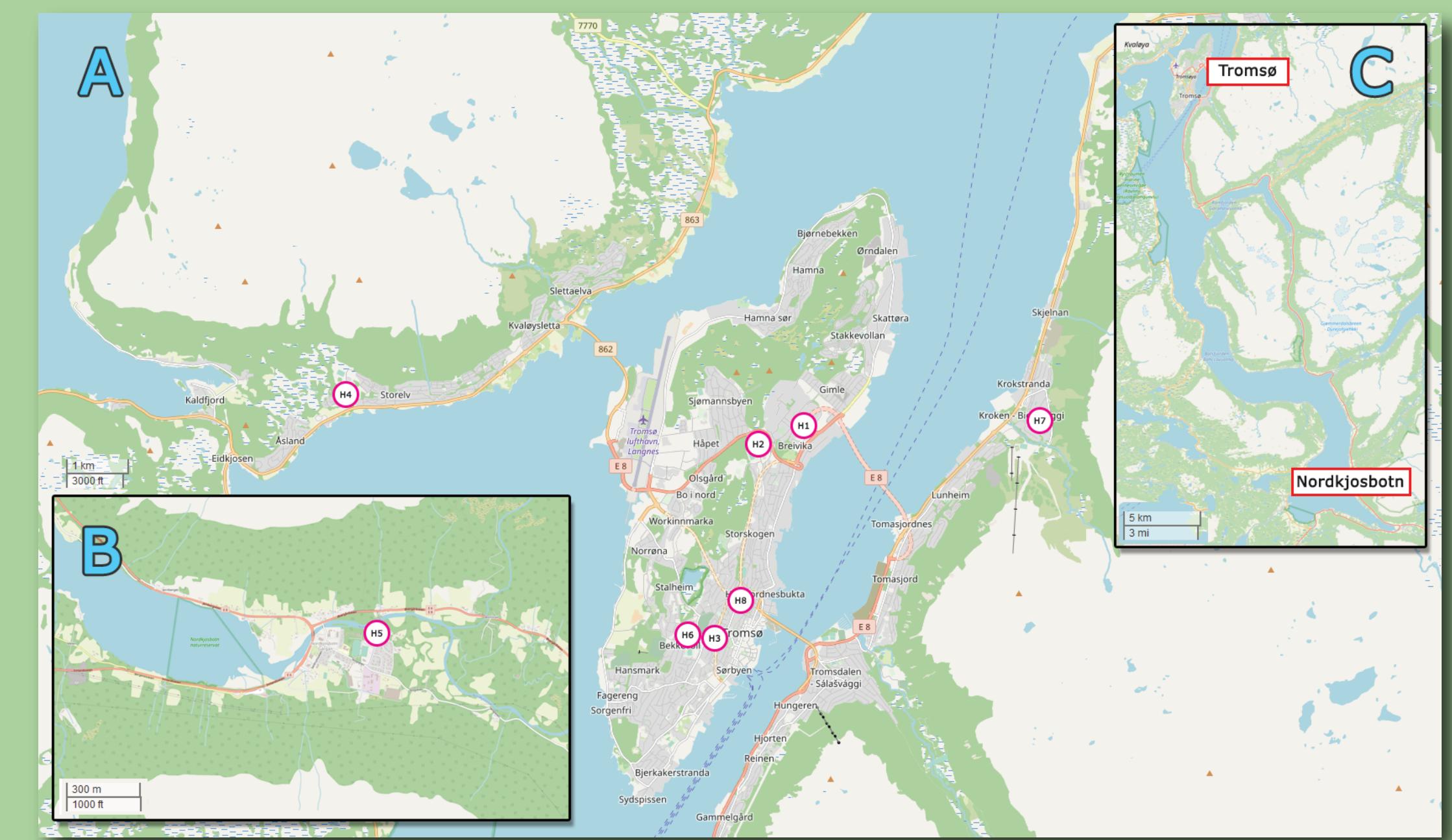


**ABSTRACT:** Staphylococcus aureus carriage increases the risk of infection. We used social network analysis to evaluate whether contacts have the same *S. aureus* genotype indicating direct transmission or whether contagiousness is an indirect effect of contacts sharing the same lifestyle or characteristics.

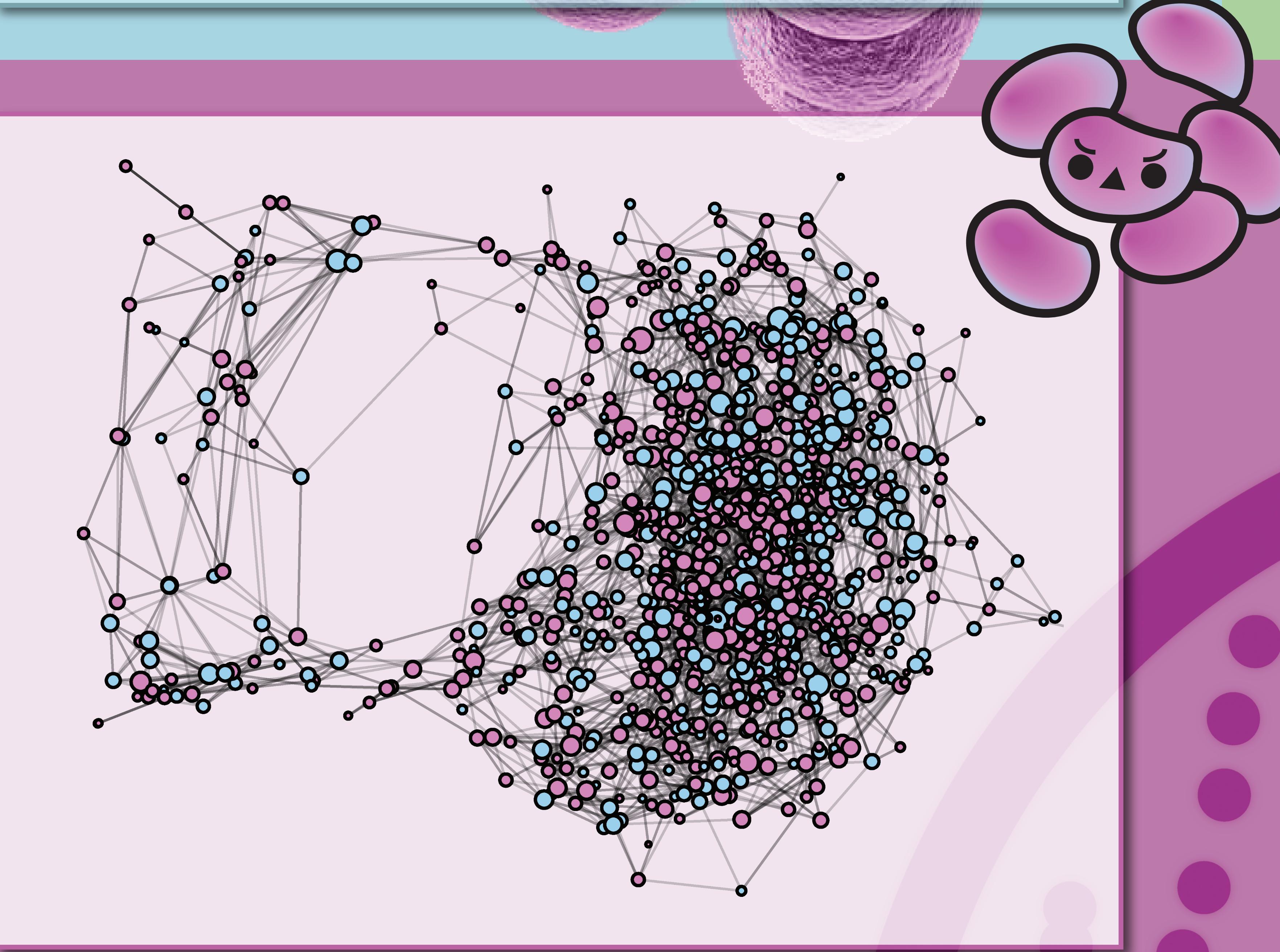
**METHODS:** The Fit Futures 1 study collected data on social contact among 1038 high school students. *S. aureus* carriage was determined from two nasal swab cultures and the genotype was determined by spa-typing of positive throat swabs.

**RESULTS:** *S. aureus* carriage and spa-type were transmitted in the social network ( $P < 0.001$ ). The probability of carriage increased by 5% for each *S. aureus* positive contact. Male sex was associated with a

**CONCLUSION:** determined by sex-specific predisposing host characteristics as the social transmission is less frequent in males than females. Information on social networks may add to a

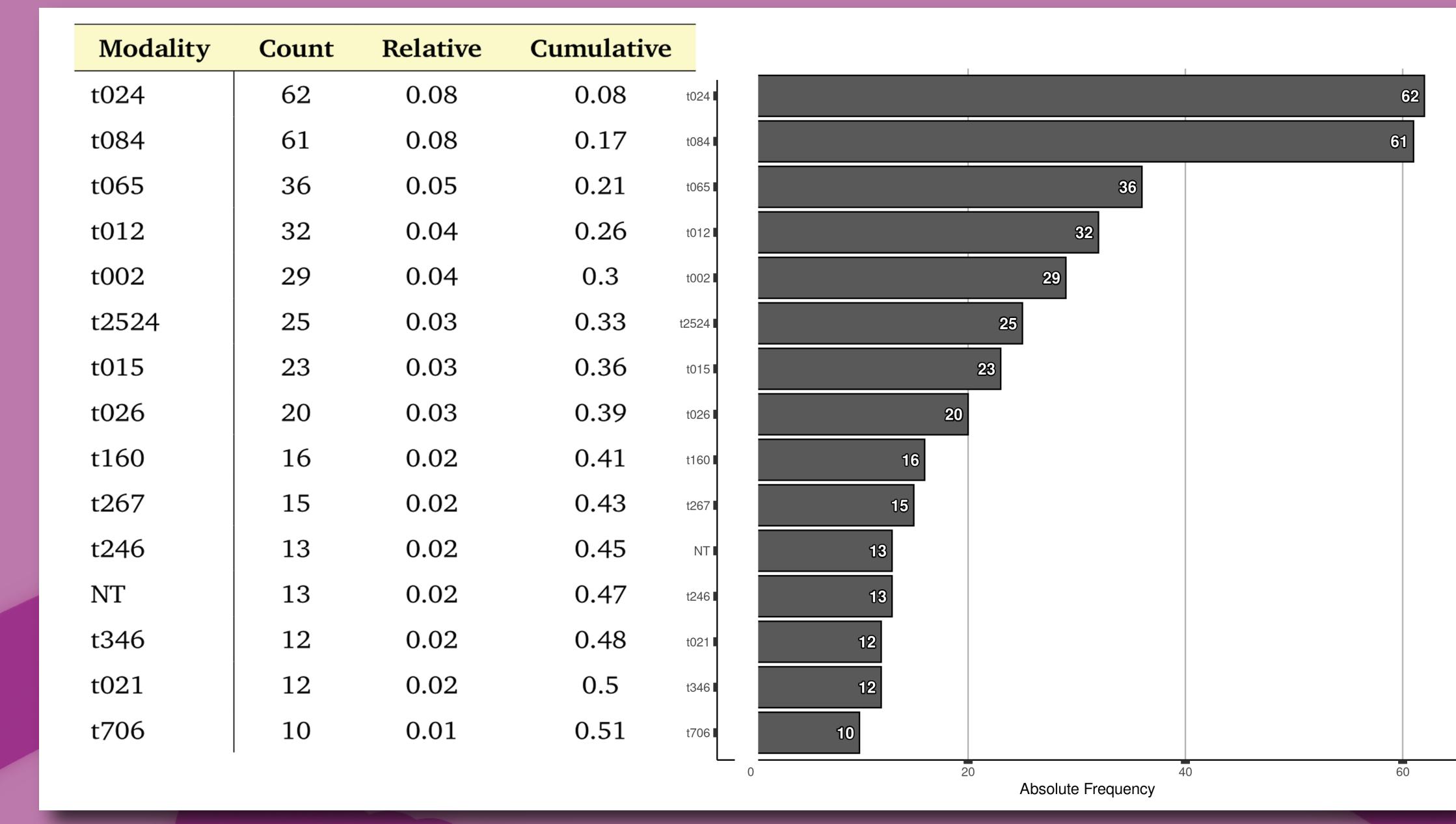


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