**Analyzing multidrug resistance patterns across the food supply chain using association rule mining**

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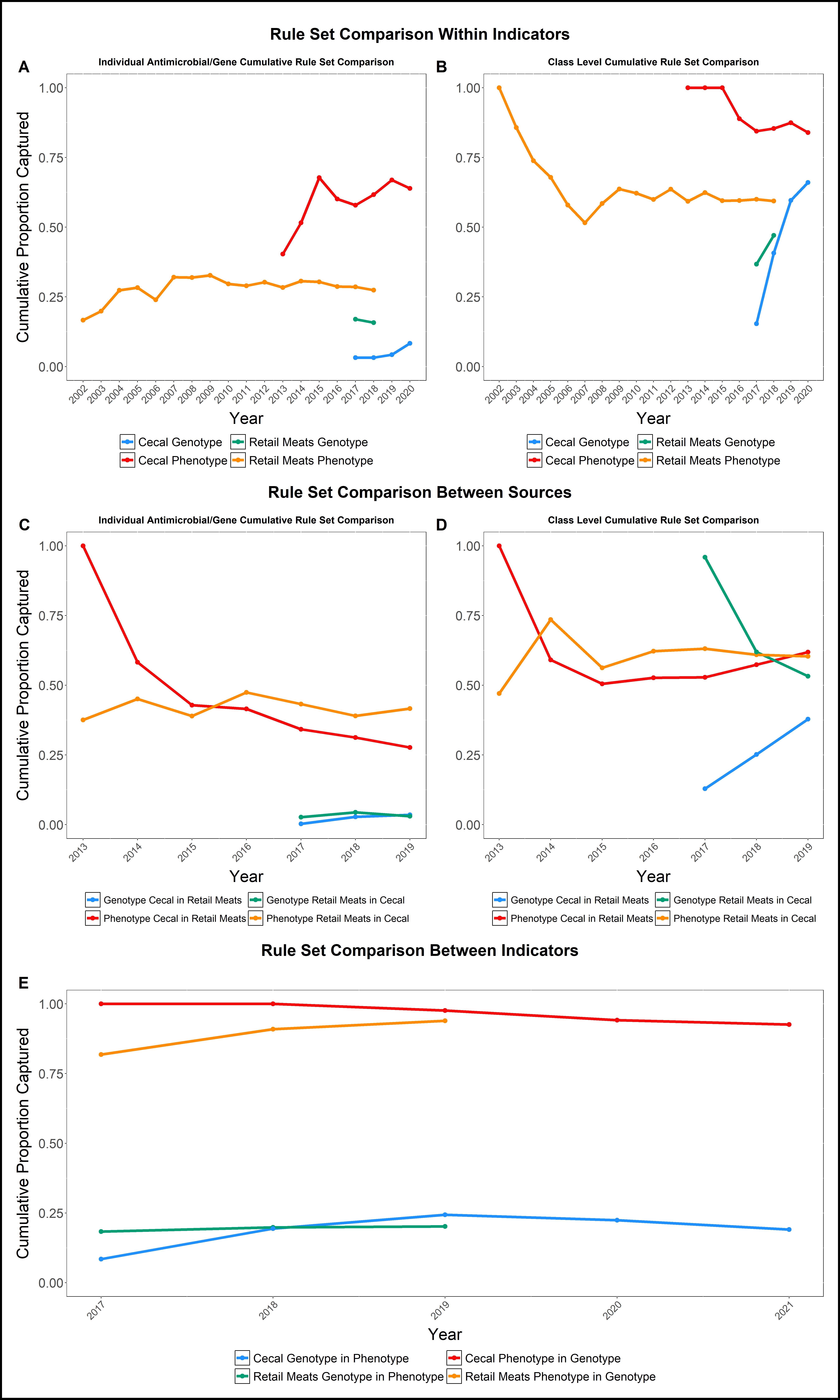
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**1. Introduction**

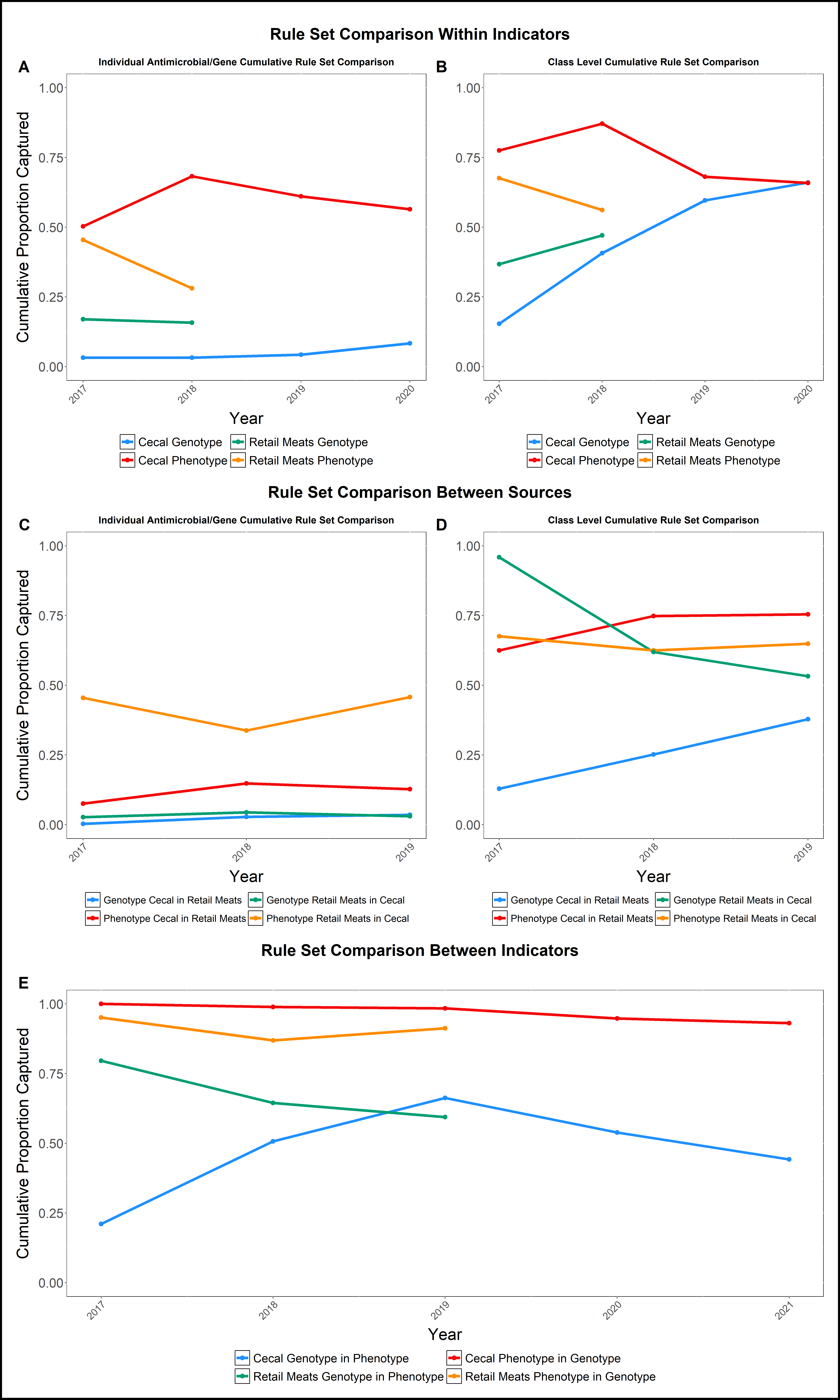
**2. Methods**

**3 Results**

3.1 Rule Set Comparison

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**Figure 1: rule set comparison for the full range of data (excludes streptomycin).**

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**Figure 2: rule set comparison for data from 2017 onward (includes streptomycin).**

3.2 Network Graph Analysis

3.3 Tabulation Comparison

**4 Discussion**

**5 Conclusions**