Interpreting data for acute respiratory infections

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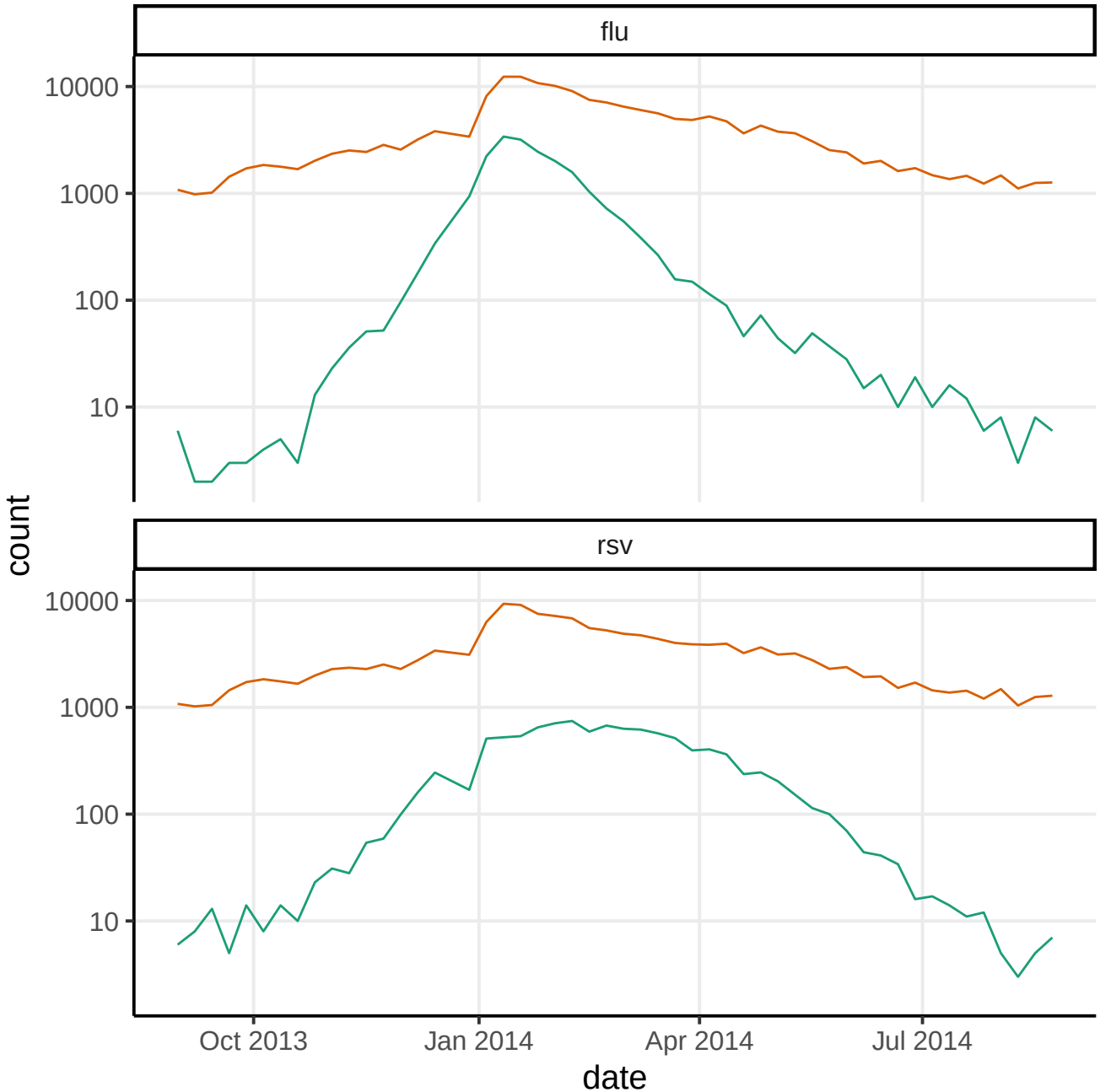

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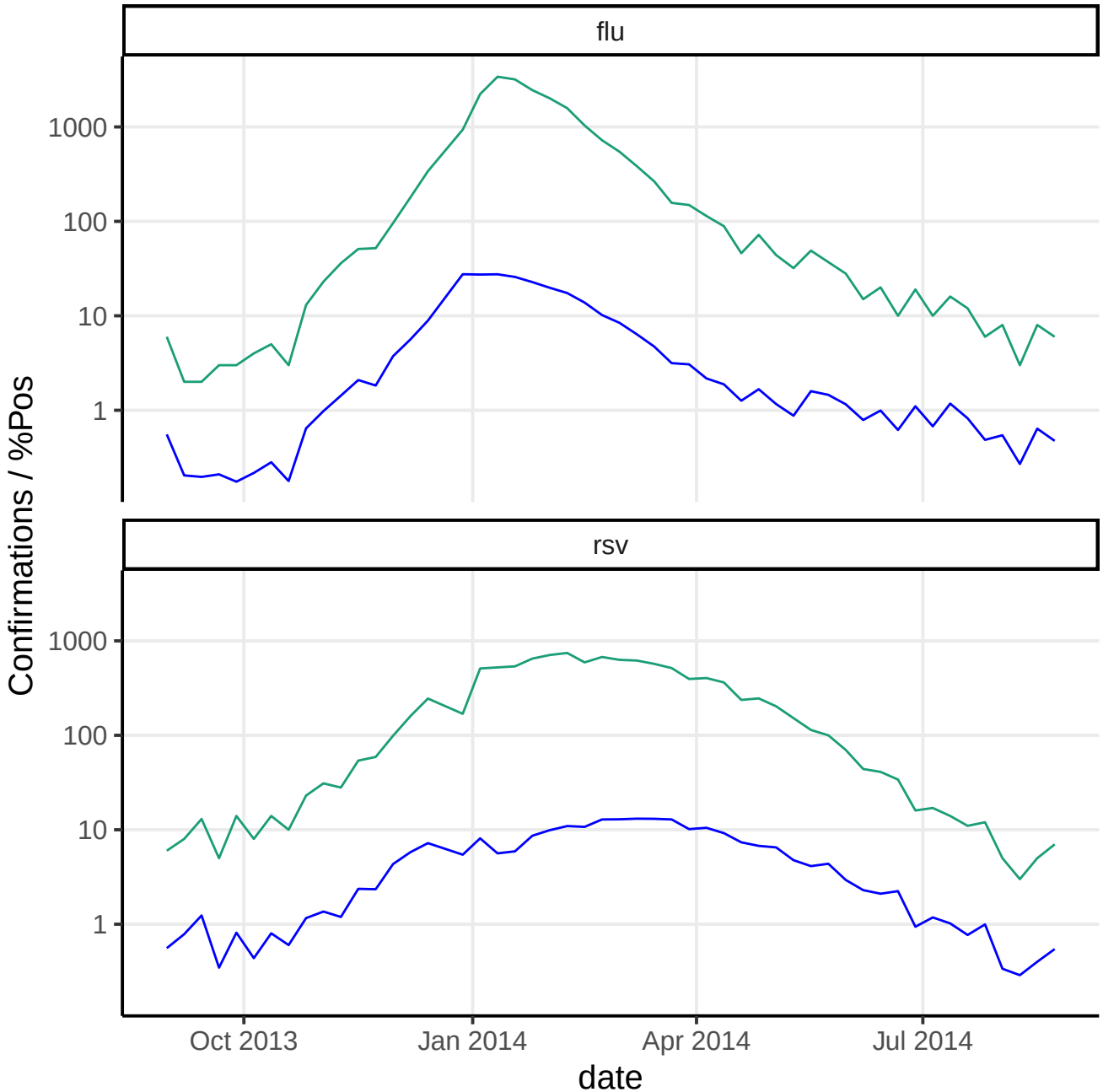

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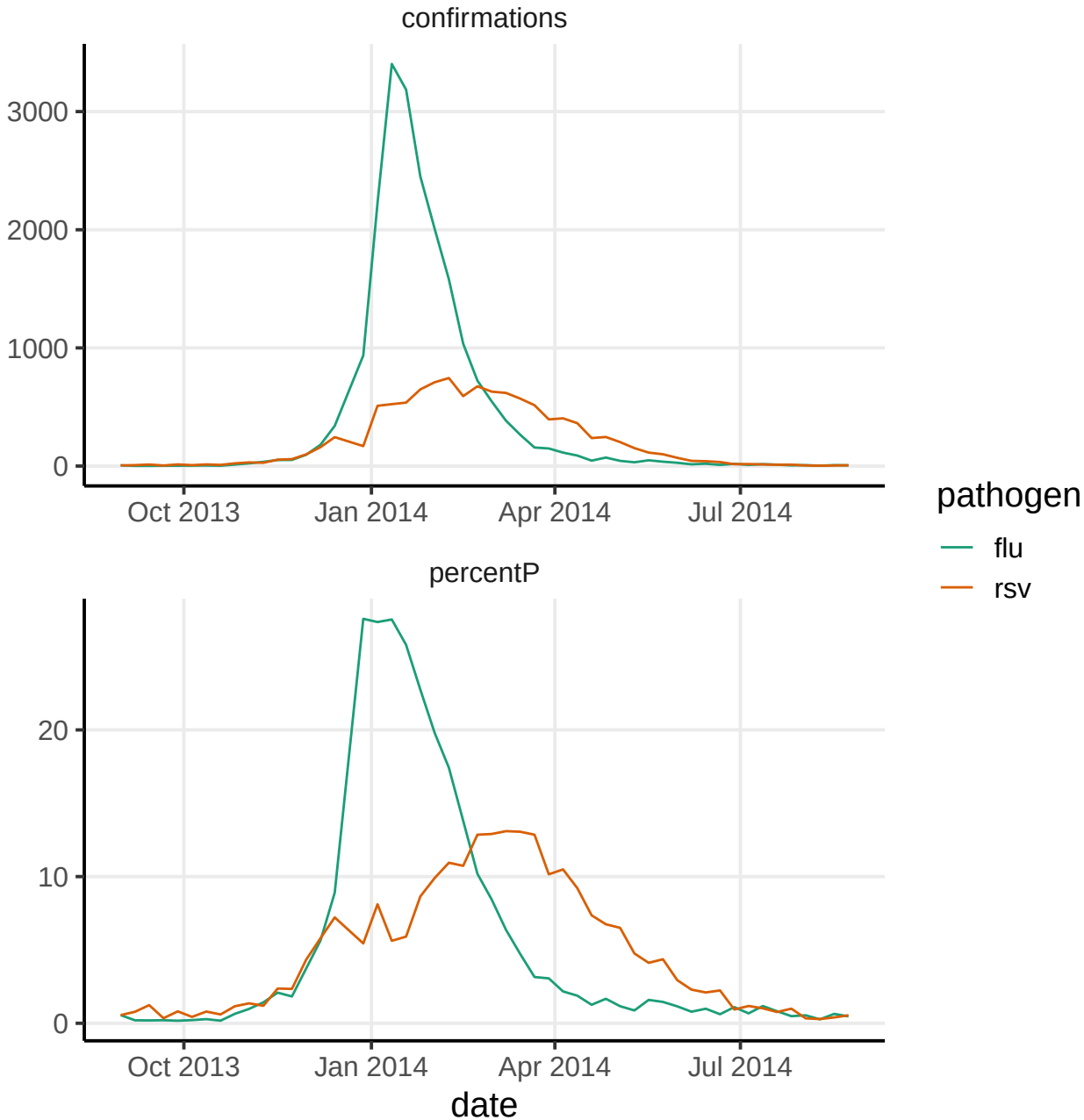

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Guidance

Indicator	Description/Rationale	Major limitations
New confirmed cases per 100 000 population per week*	Direct measure of incidence. Reporting delays can be accounted for to improve identification of projected surges (33). Monitoring the percent weekly change in new cases is particularly important to anticipate surges in transmission.	Heavily influenced by surveillance system performance, testing policy and laboratory capacity and reporting policies. At low levels and in small geographical regions, can be sensitive to minor fluctuations in case counts, particularly due to batch reporting. Most countries have now drastically reduced testing and reporting of incident cases, but sentinel surveillance may still provide robust estimates of transmission trends (34). Percent changes may be unstable in situations where there are very few cases.
Test positivity rate per week*	Allows understanding of transmission intensity even in the absence of universal testing/reporting. It may capture a typical case better than syndromic surveillance. Particularly useful for monitoring trends. This indicator can be monitored at sentinel sites or from any facility.	Heavily influenced by testing strategy (i.e., who gets tested) and capacity and changes therein. May be artificially reduced during co-circulation of other pathogens with overlapping symptoms (35)
New COVID-19 hospitalizations per 100 000 population per week*	A predictable (in the absence of shifts in circulating variants) subset of all incident cases requiring hospitalization. Thus, this is an indirect indicator of incidence. Unlikely to be subject to surveillance policy changes/differences.	May be influenced by hospitalization policy, e.g., if even mild cases are hospitalized for isolation purposes. Delayed measure of incidence. May be influenced by changes in severity of variants, even in setting of stable transmission intensity.
New ILI or ARI cases (per 100 000 population or per fixed sentinel site catchment) per week*	May be helpful where COVID-19-specific surveillance is not robust. Allows comparison with historical ILI/ARI baseline data. Ideally a subset or all should be tested for SARS-CoV-2 and other pathogens to understand what is driving the ILI or ARI rates.	Indirect measure of COVID-19 incidence; need to understand relative levels of other respiratory pathogens (e.g., influenza, RSV).
Product of weekly ILI or ARI rates and weekly percentage positivity for SARS-CoV-2*	Yields estimate of actual COVID-19 incidence. May be helpful where COVID-19-specific surveillance is not robust	Indirect measure of COVID-19 incidence. Requires ILI/ARI rates and SARS-CoV-2 positivity to come from same catchment population.

https://www.who.int/publications/i/item/who-2019-ncov-adjusting-ph-measures-2023.1

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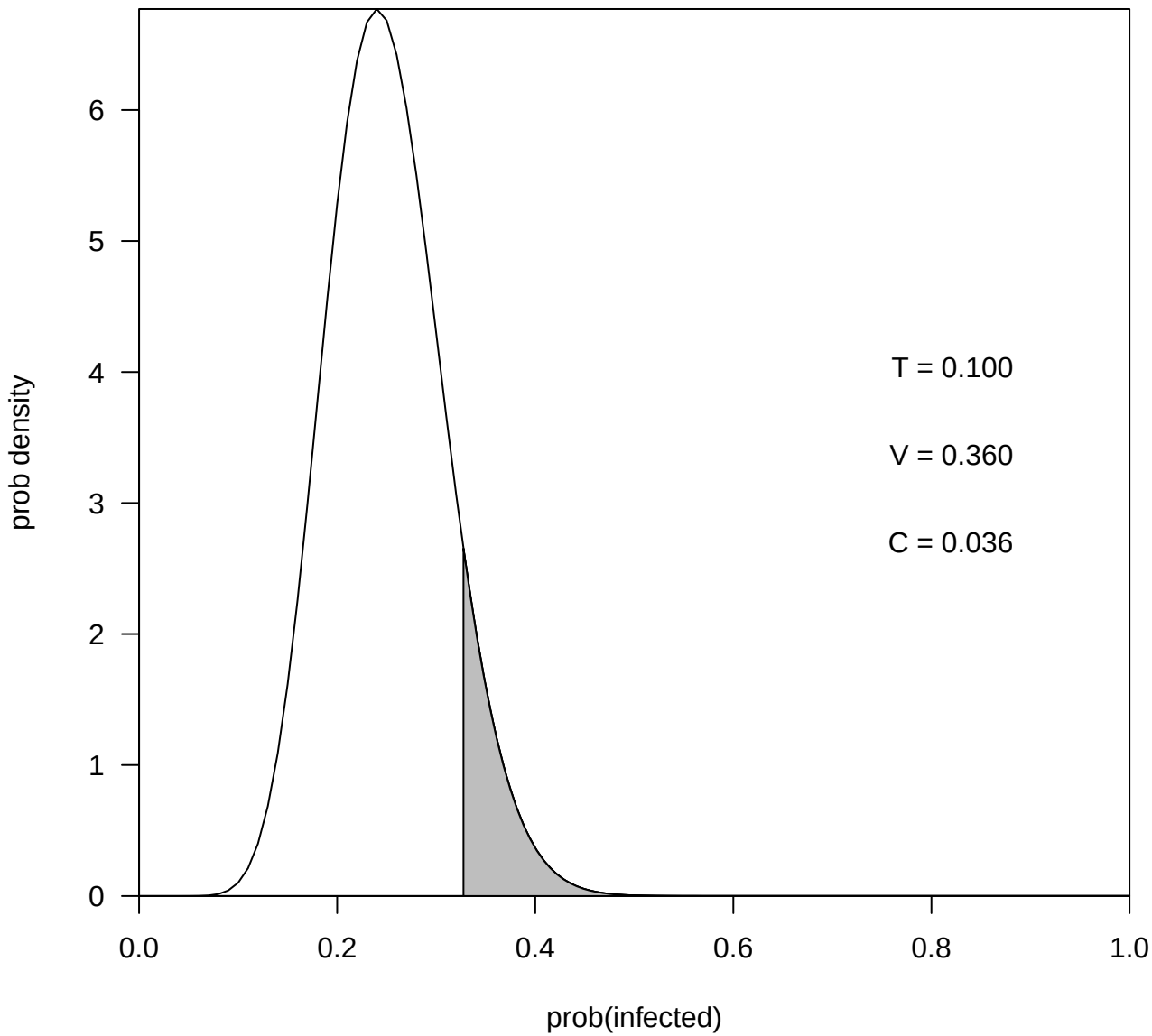

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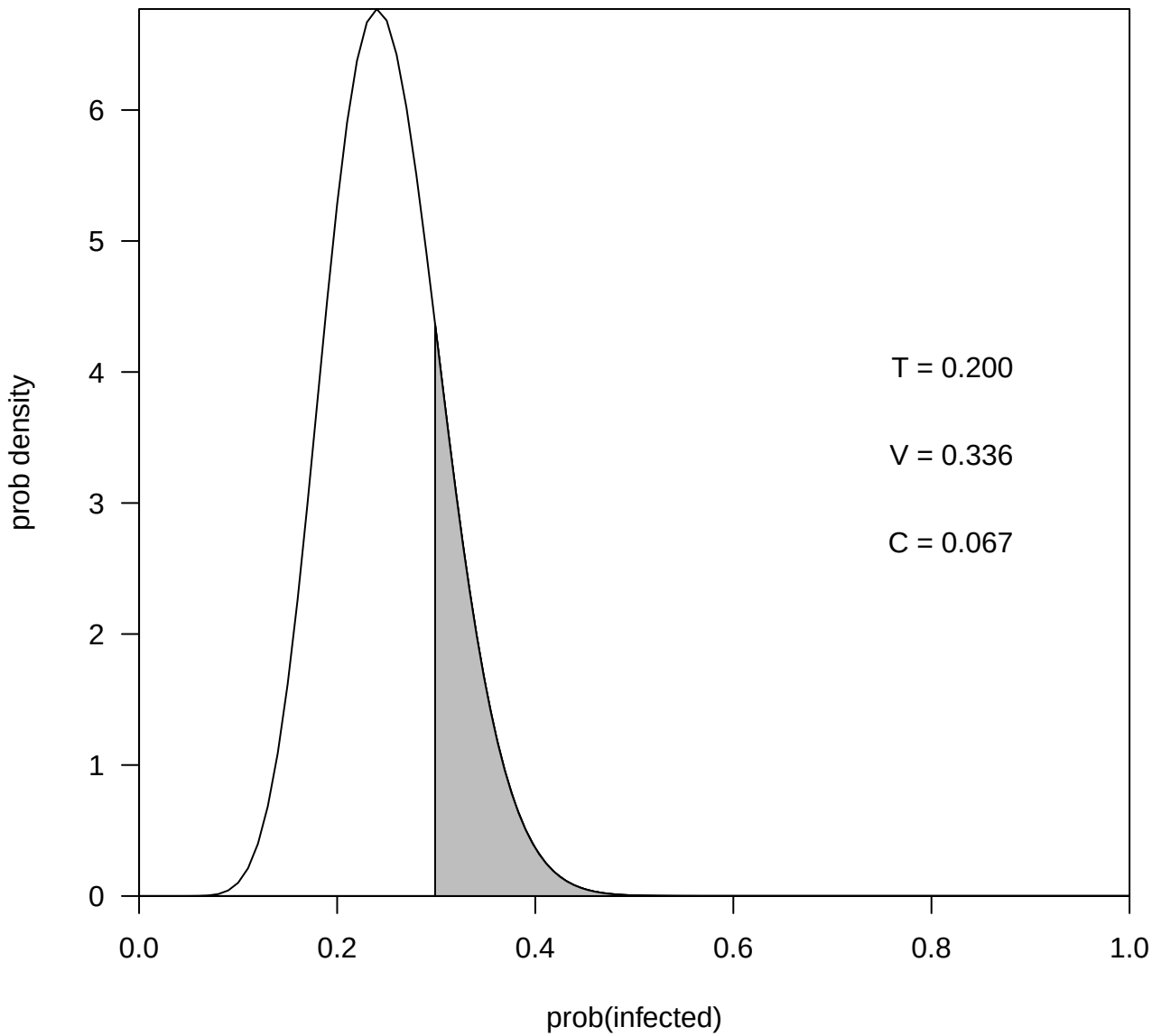

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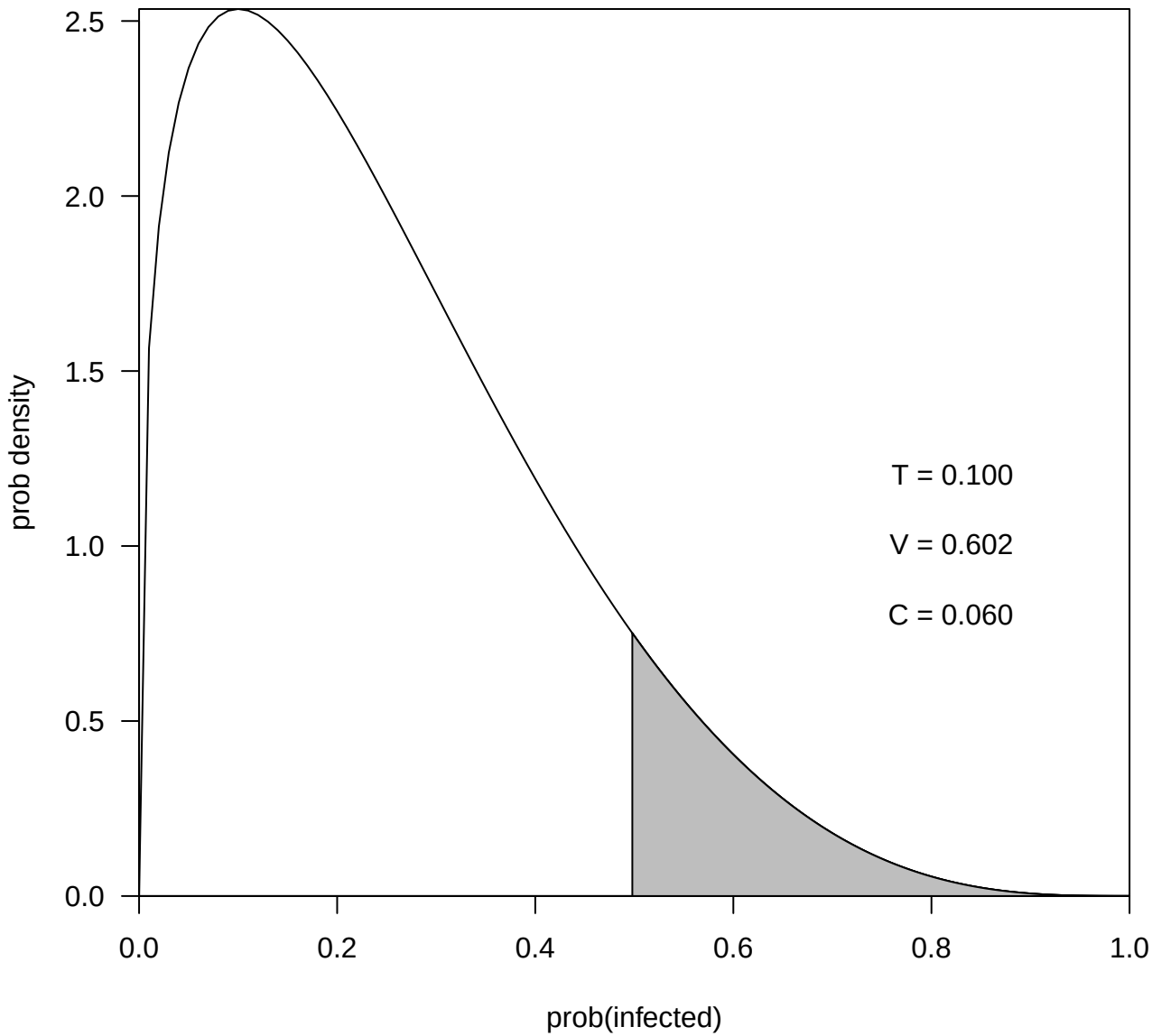

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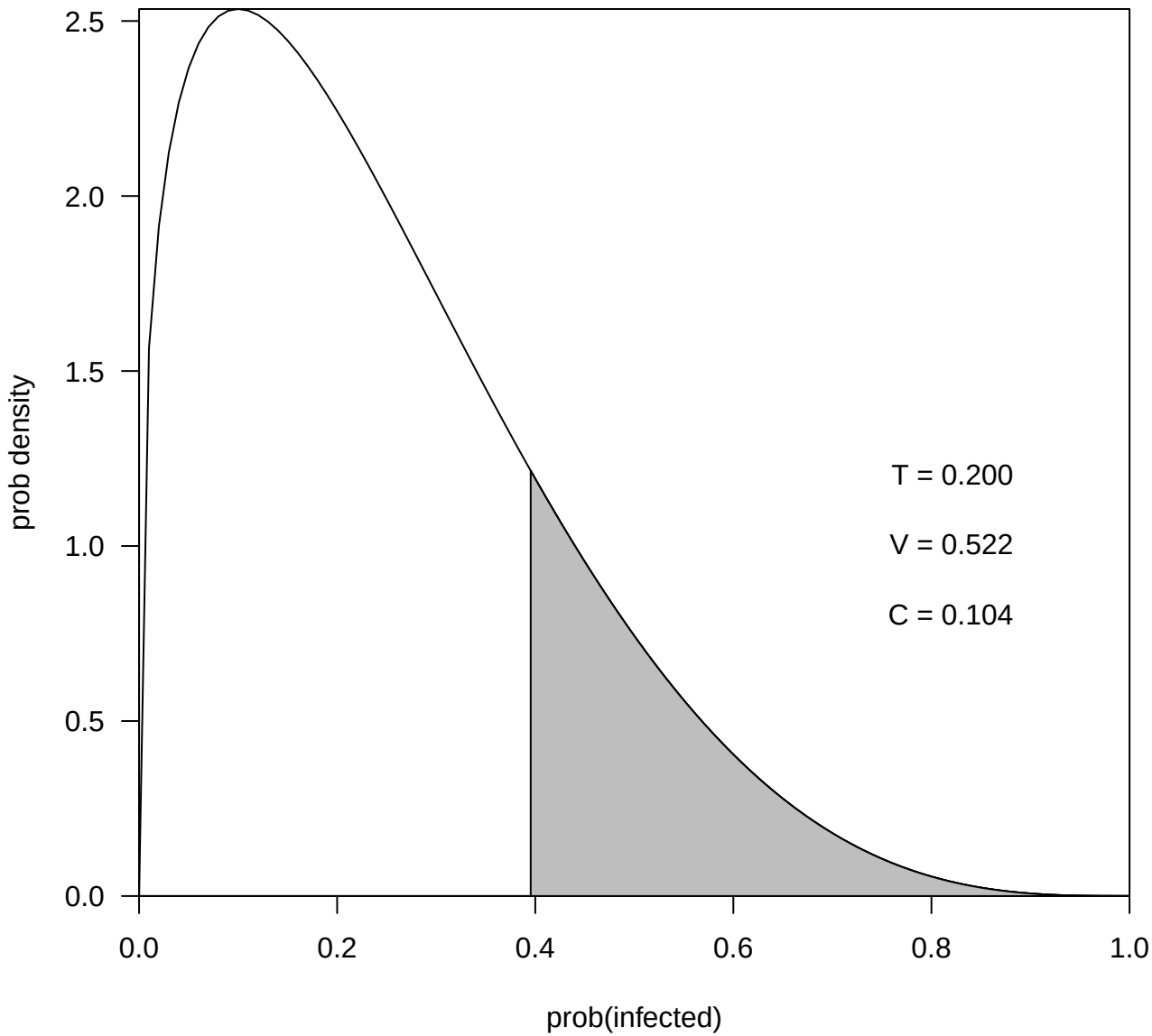

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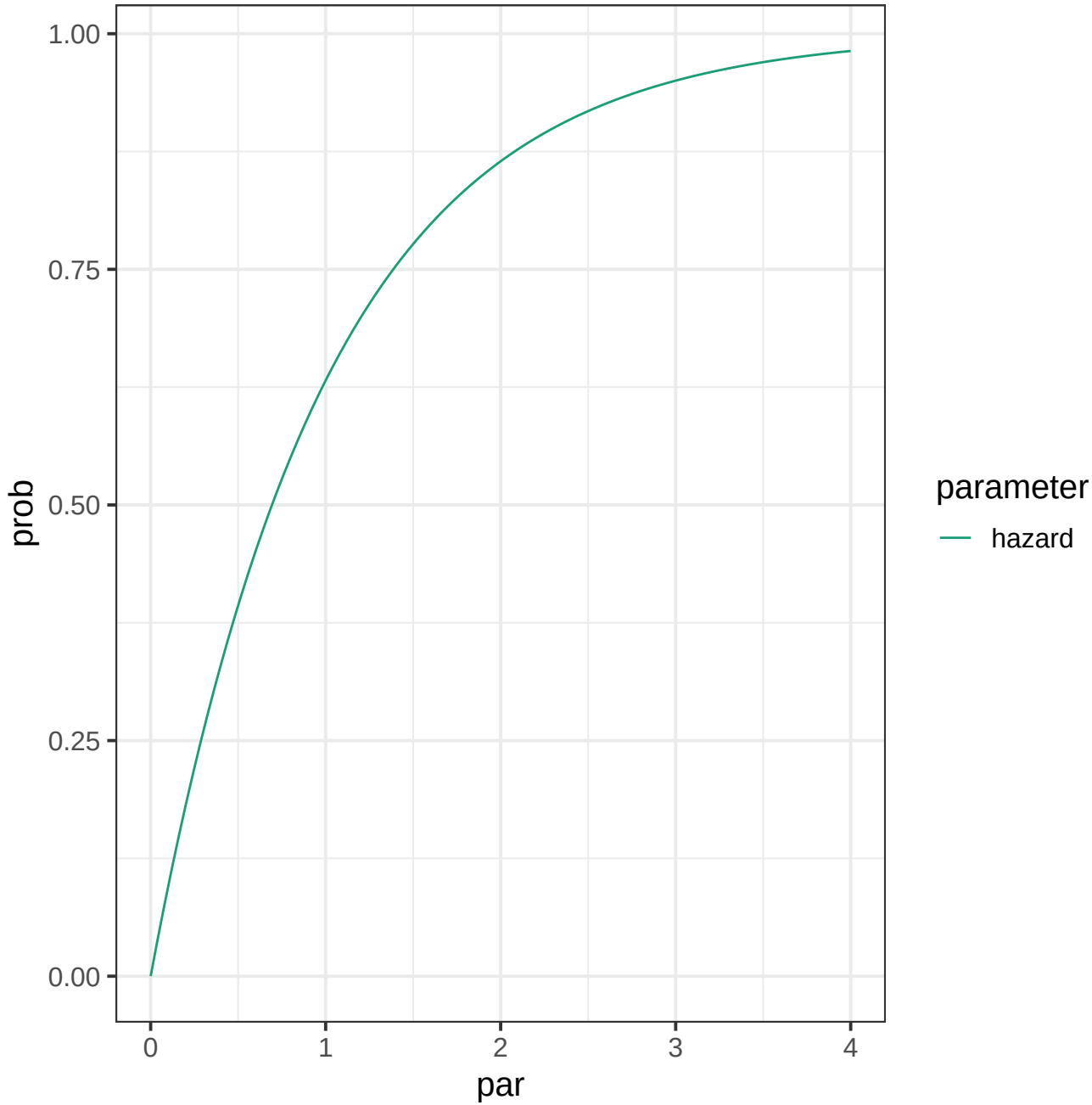

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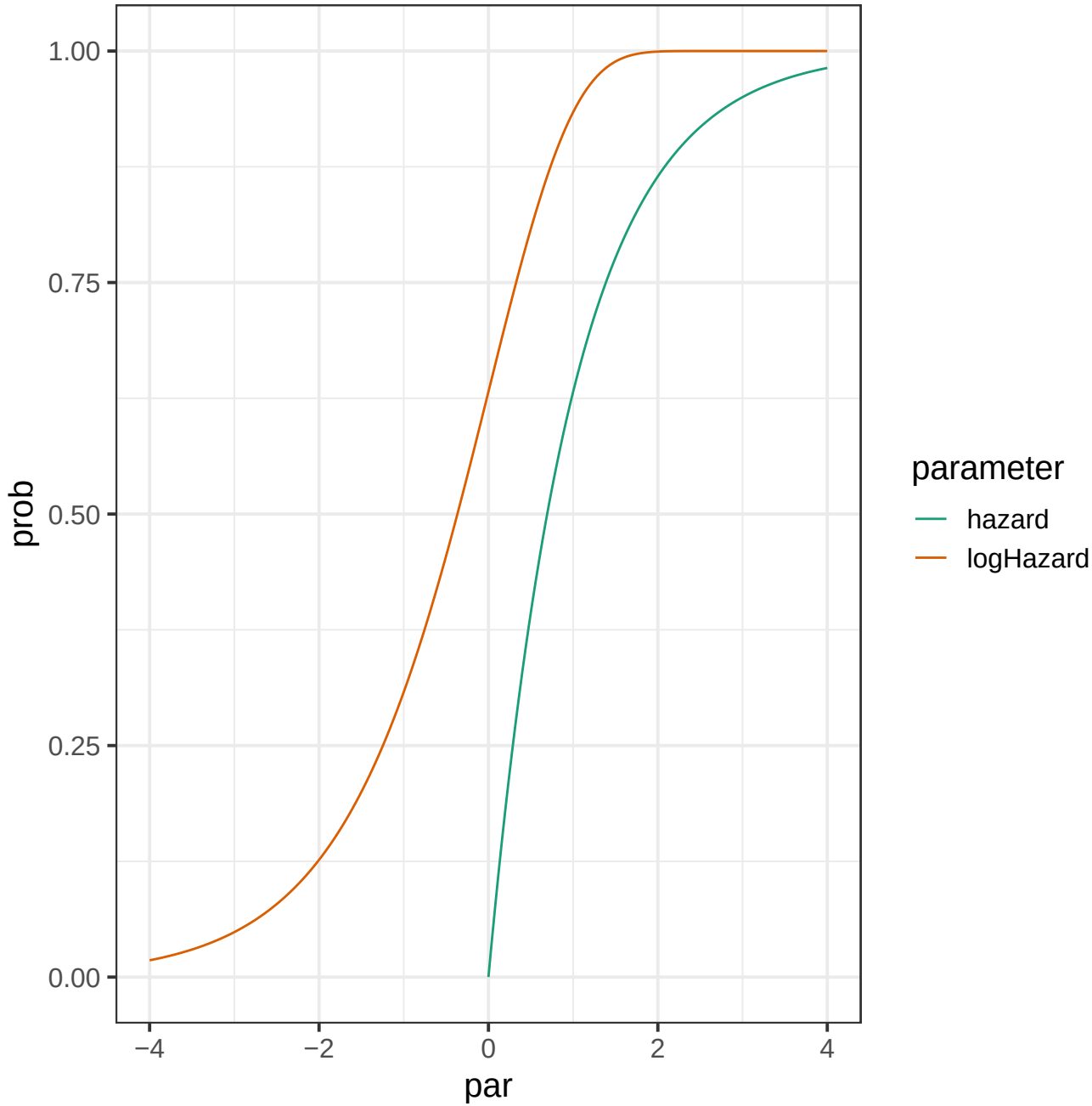

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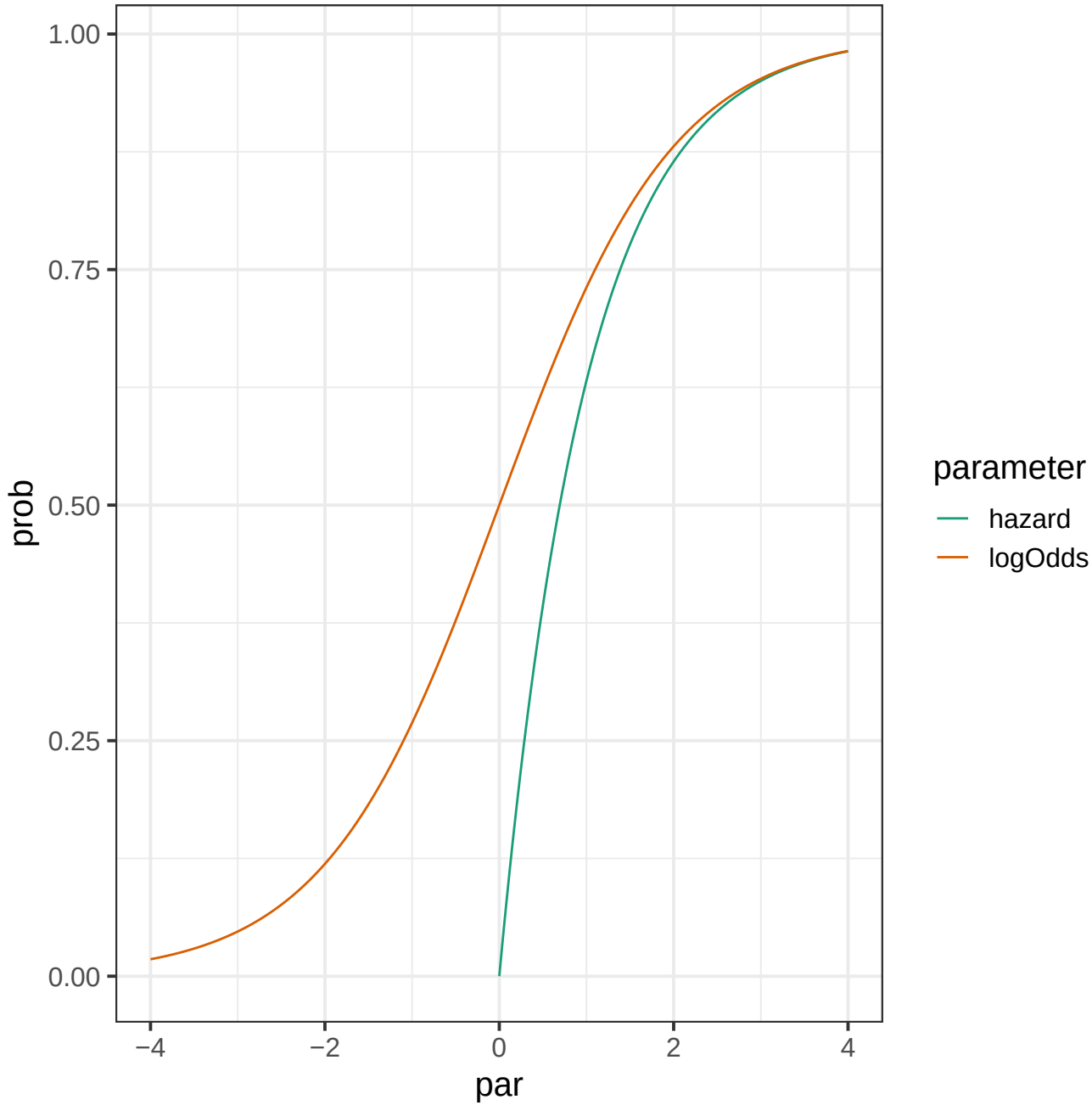

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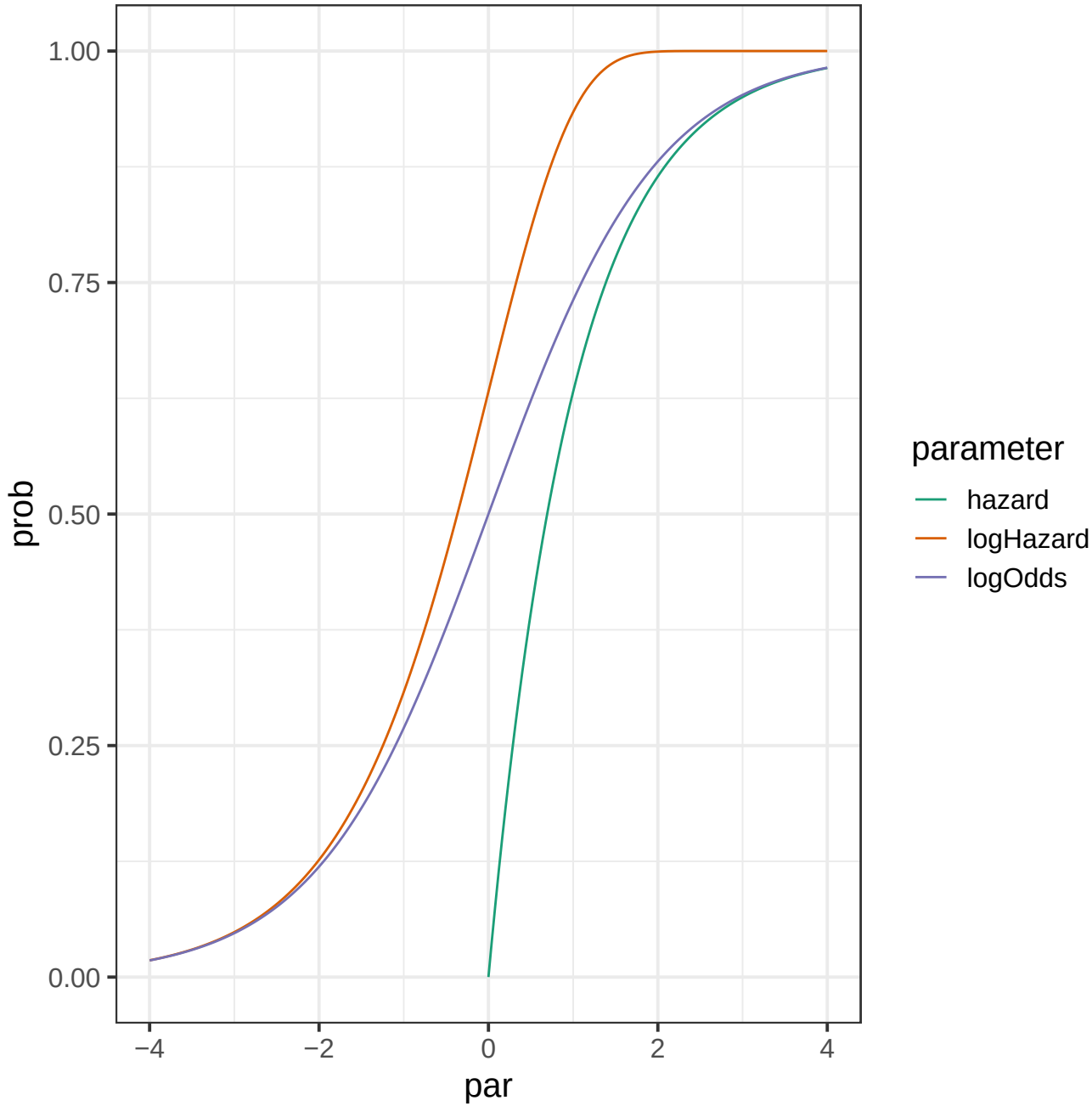

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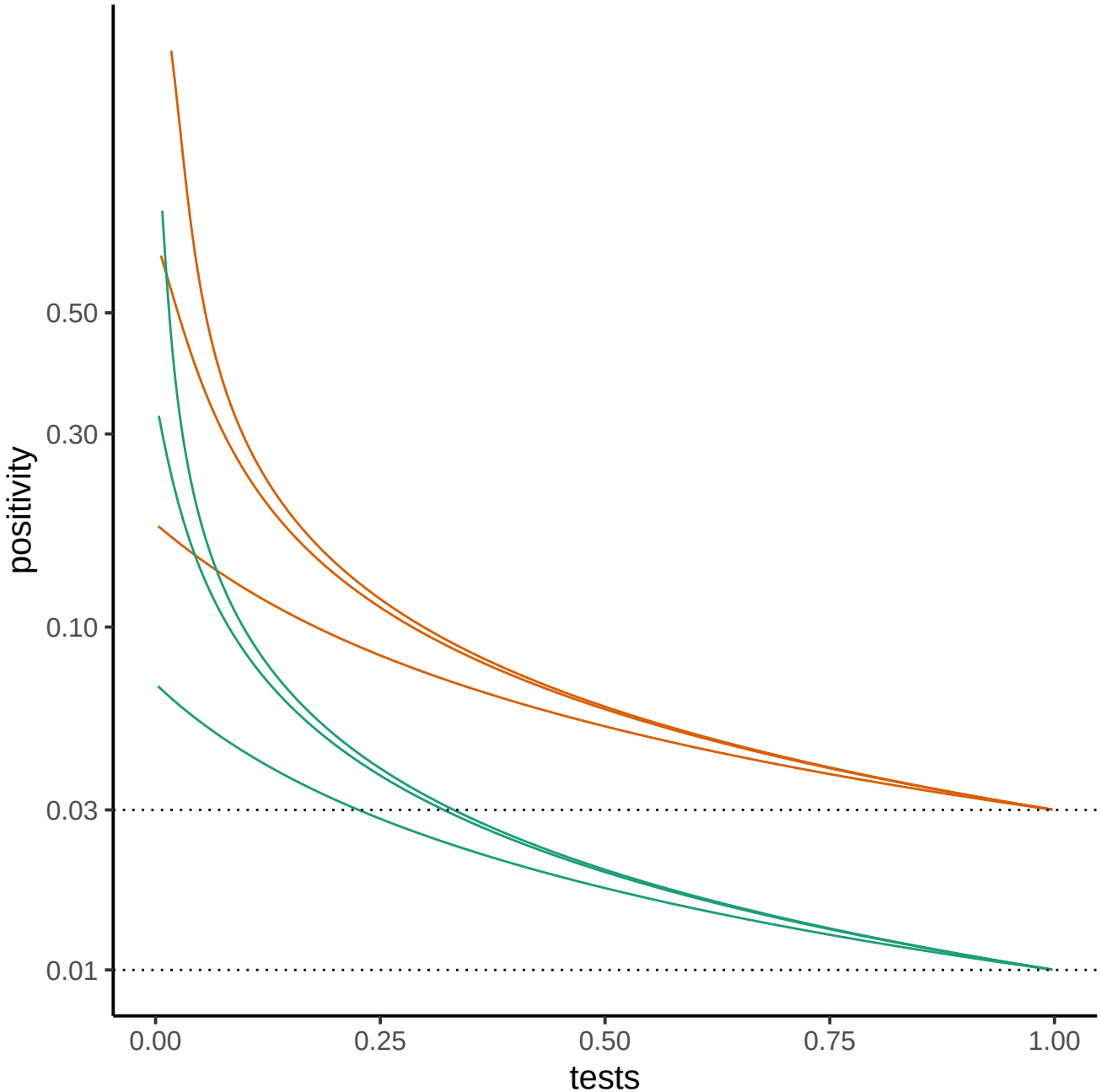
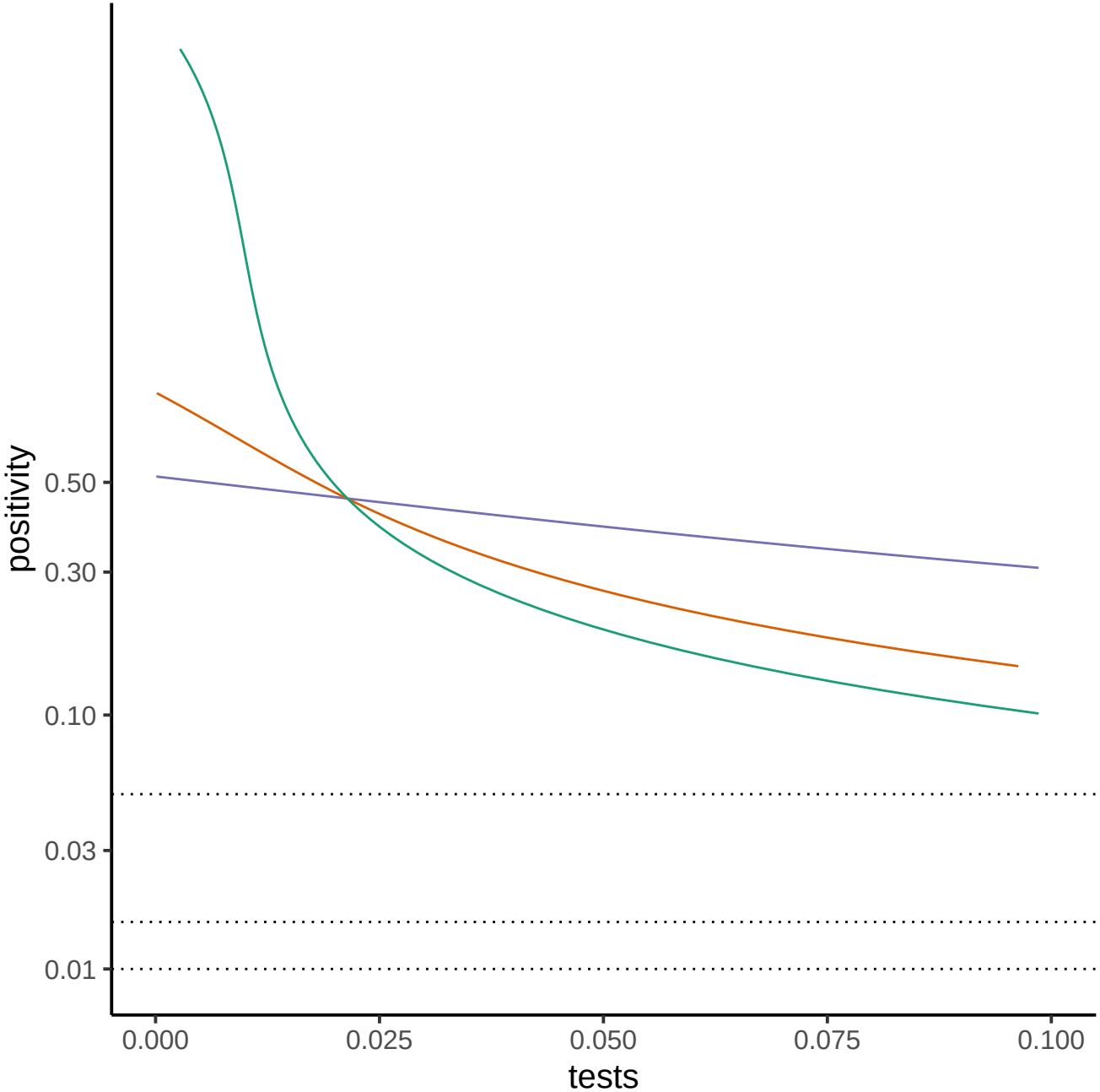


Interpreting observations



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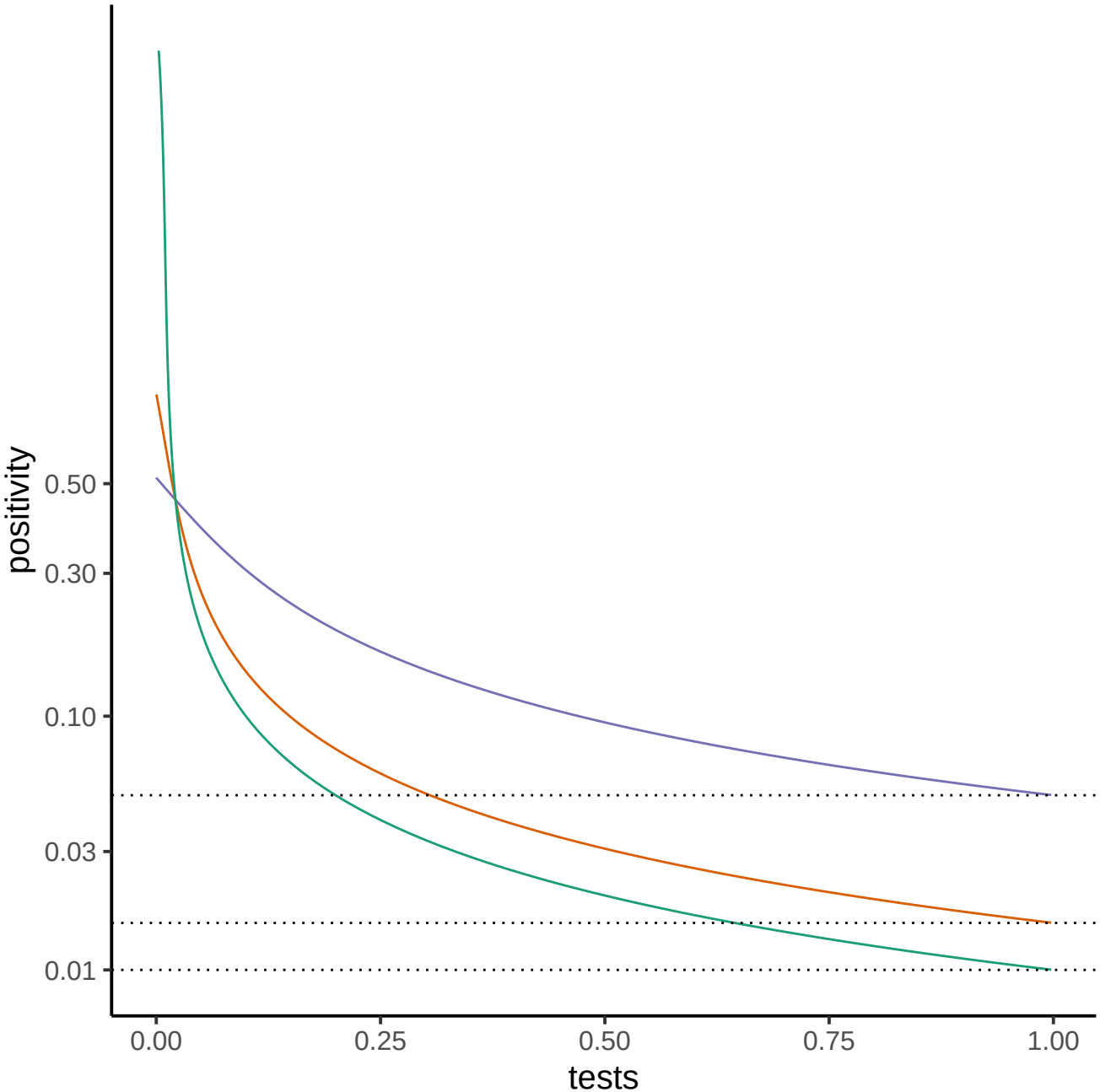

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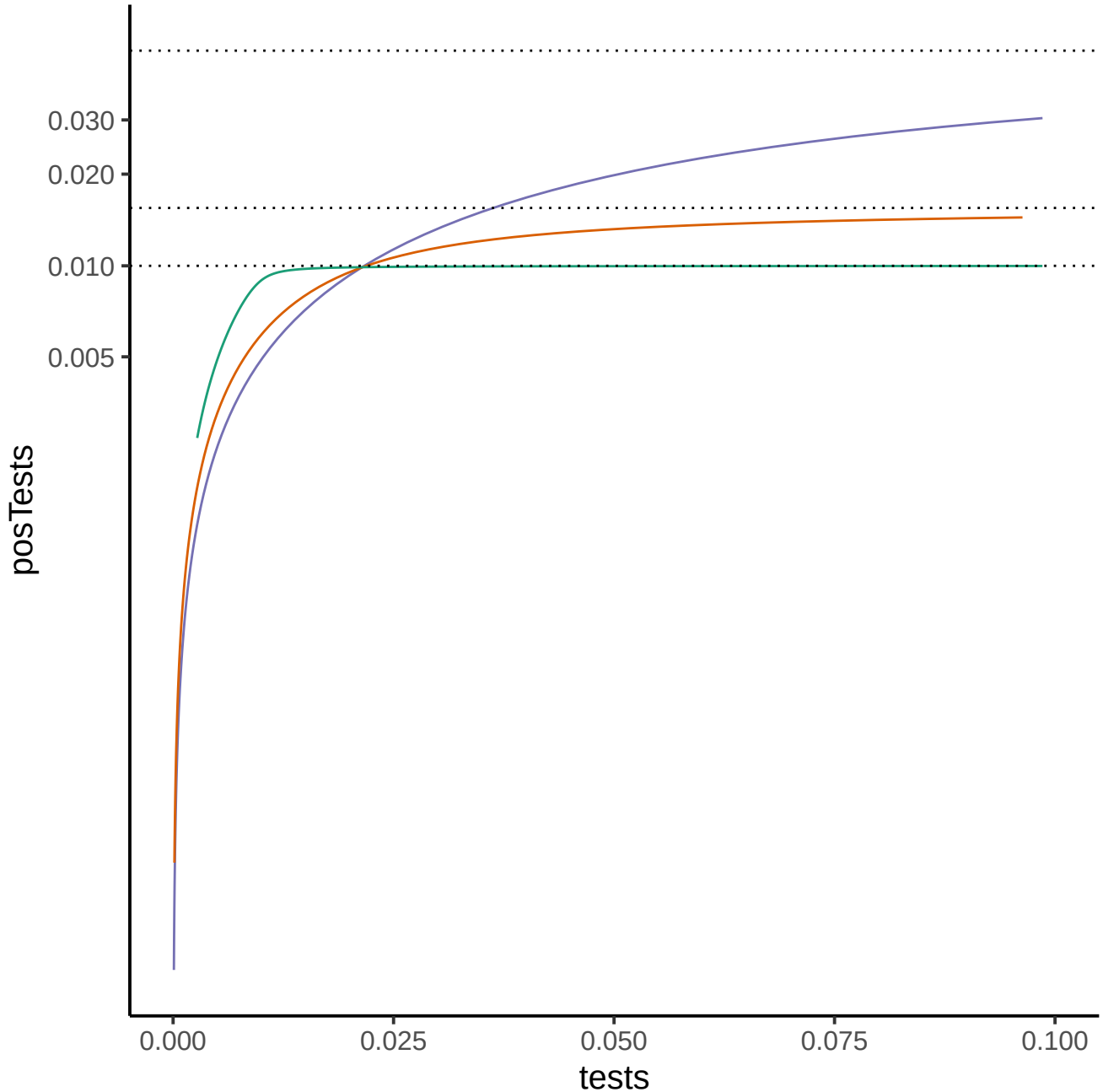

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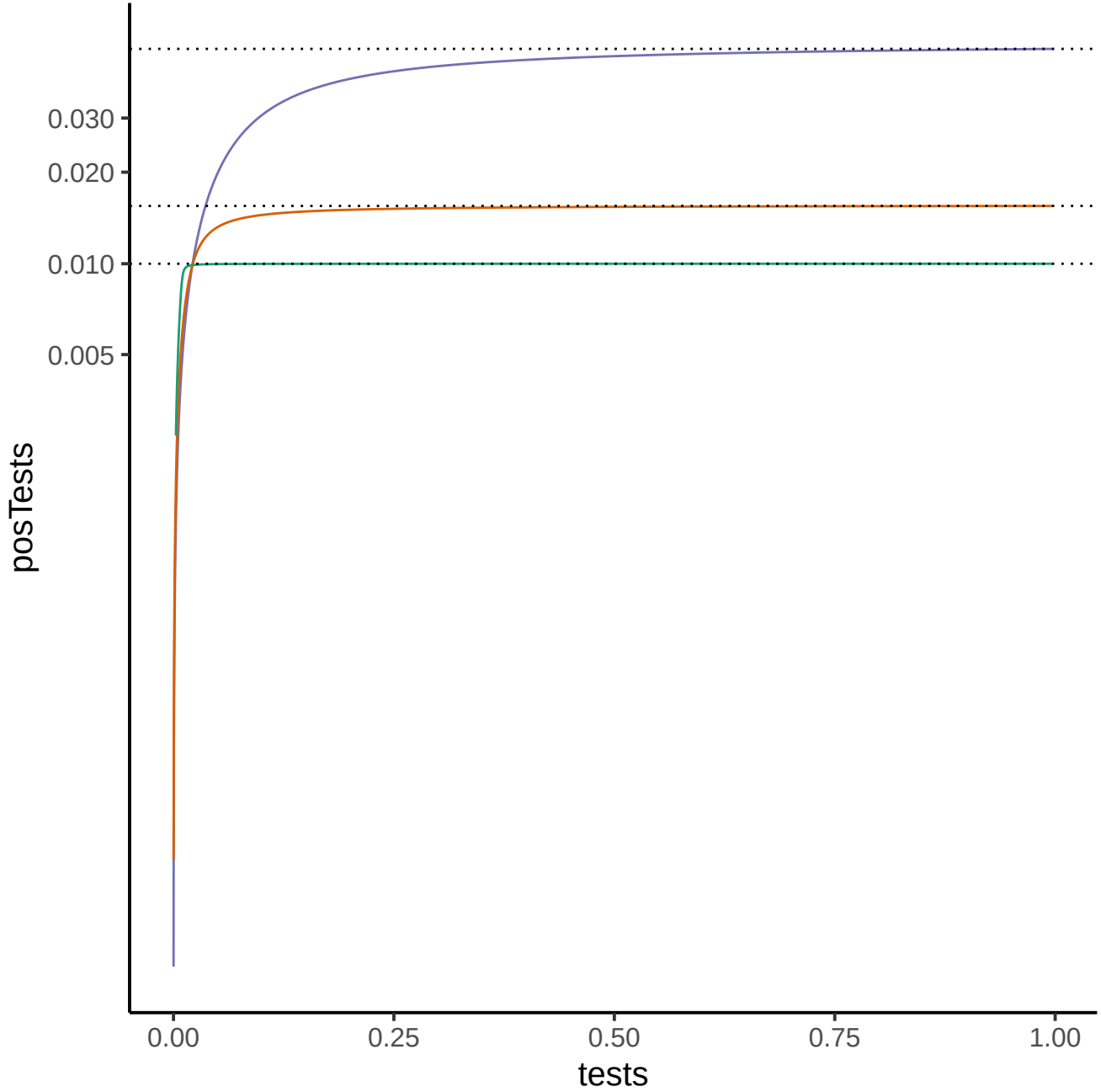
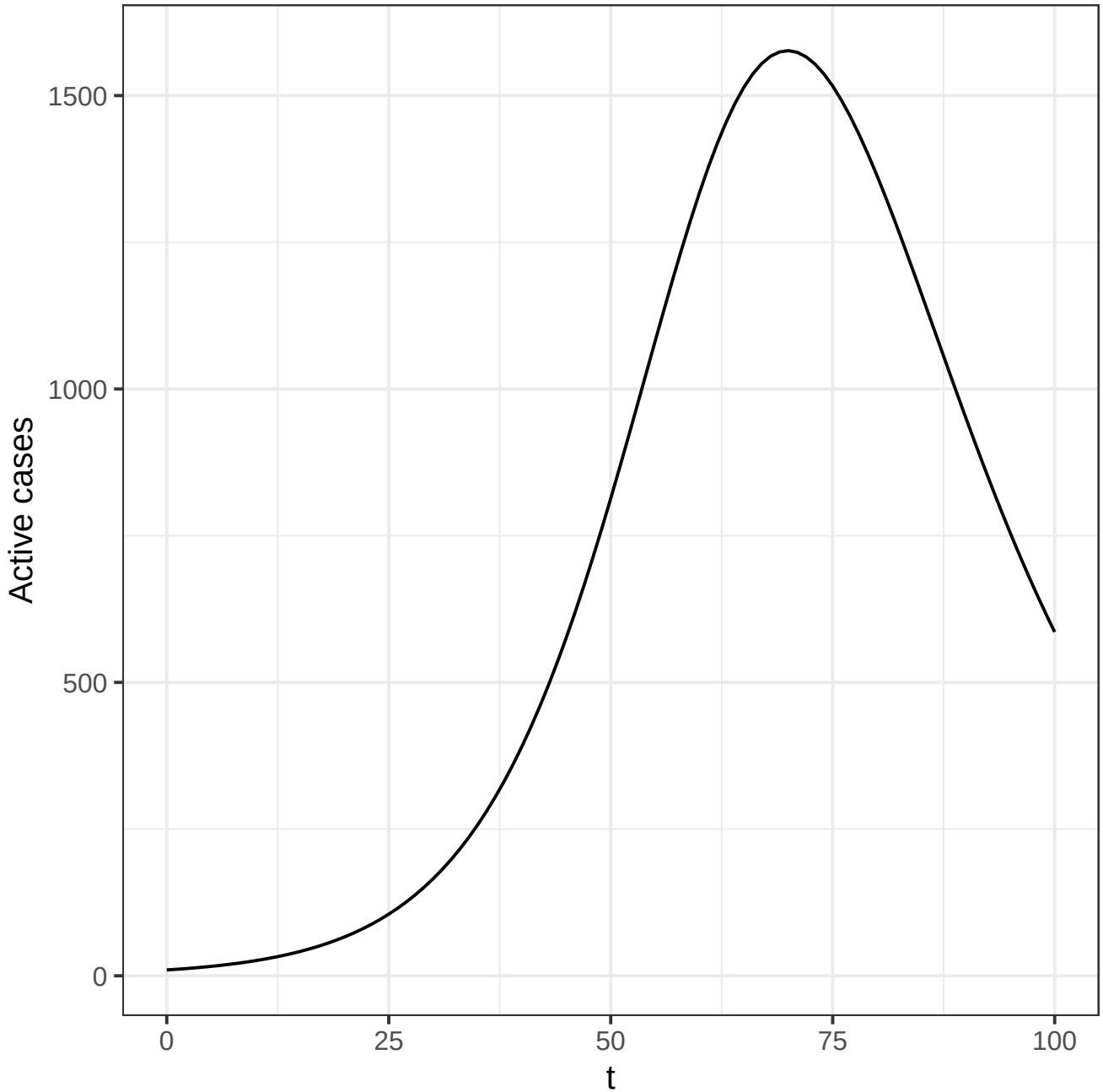


Changing concern scenario



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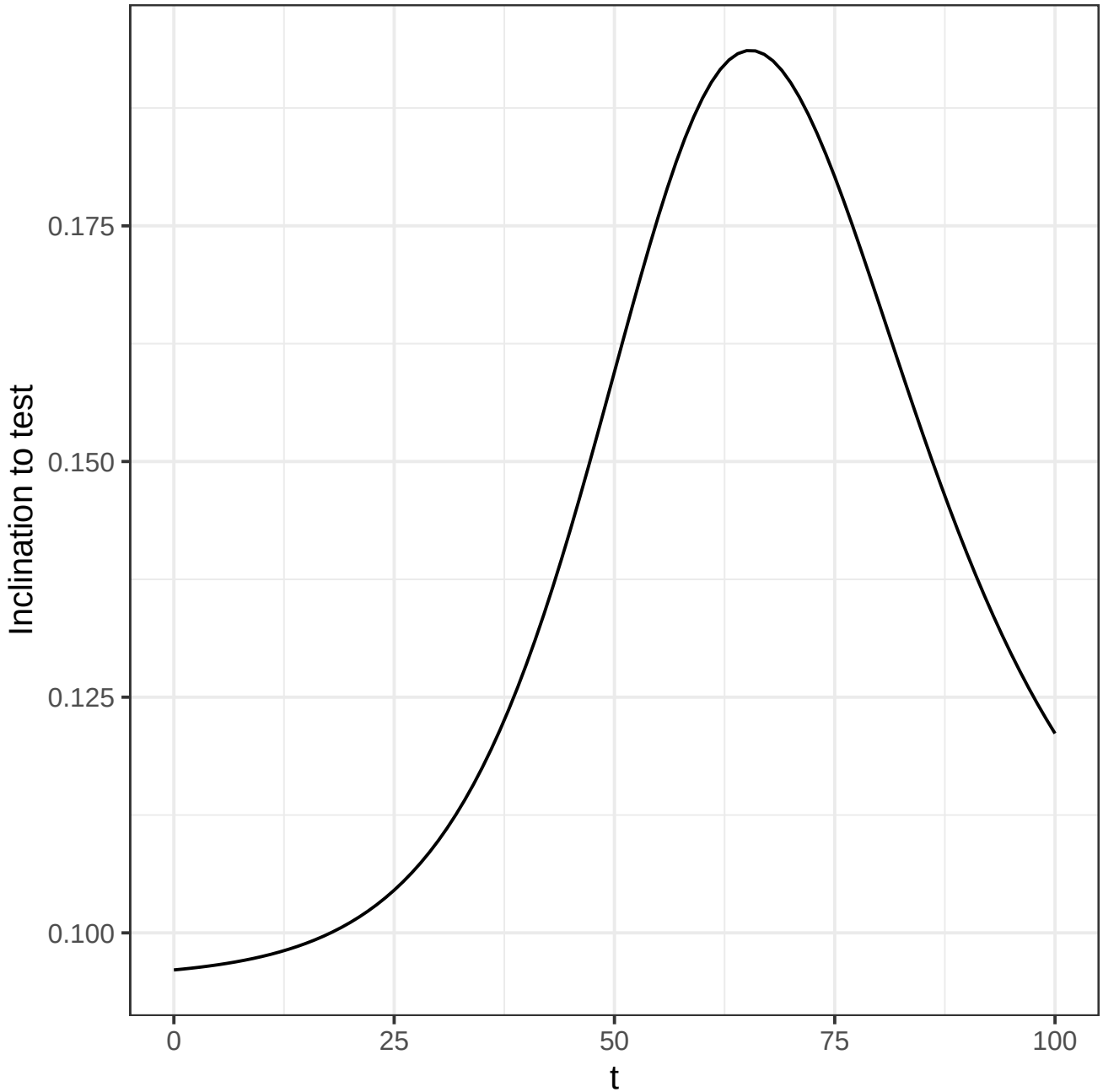

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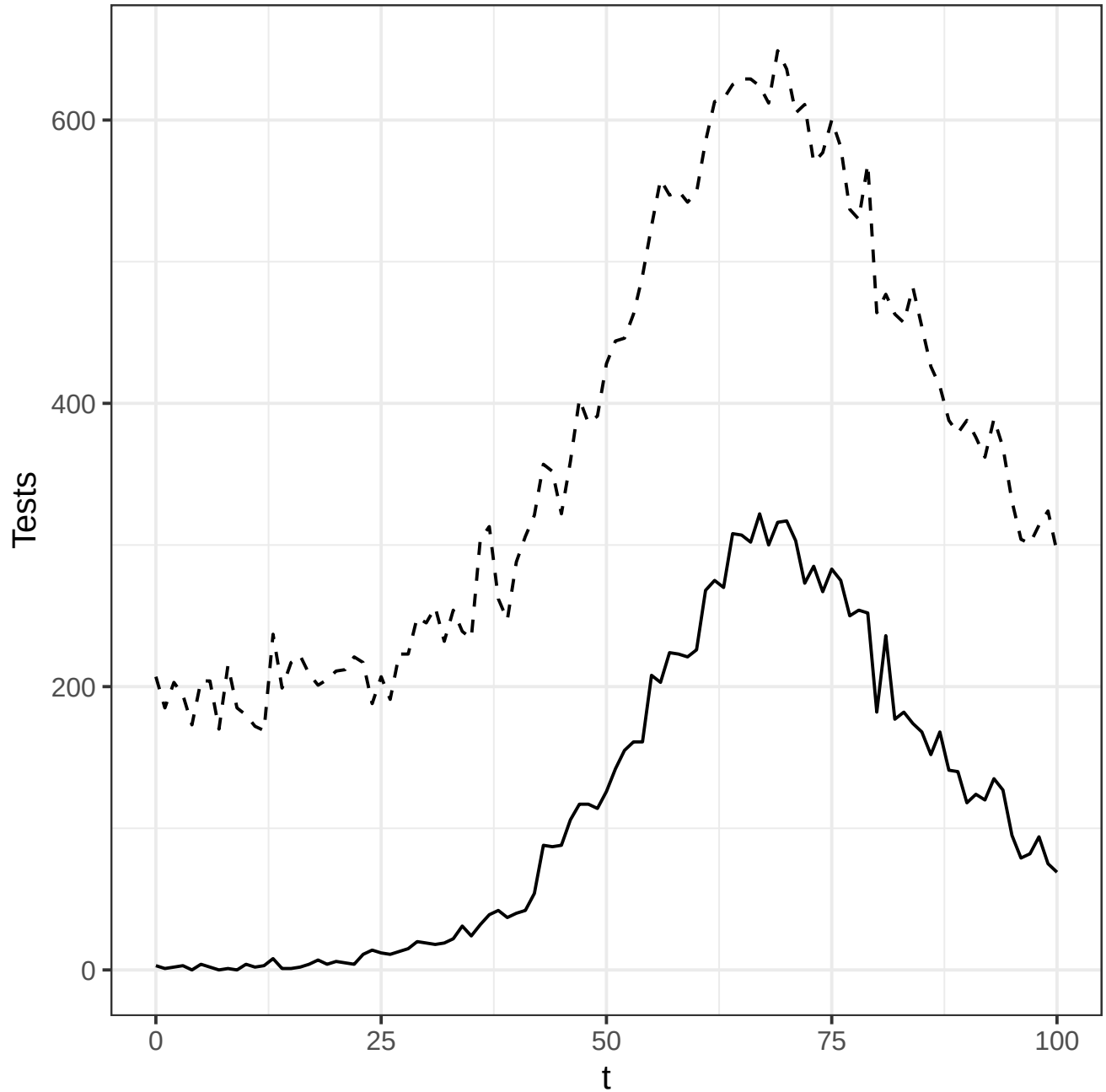

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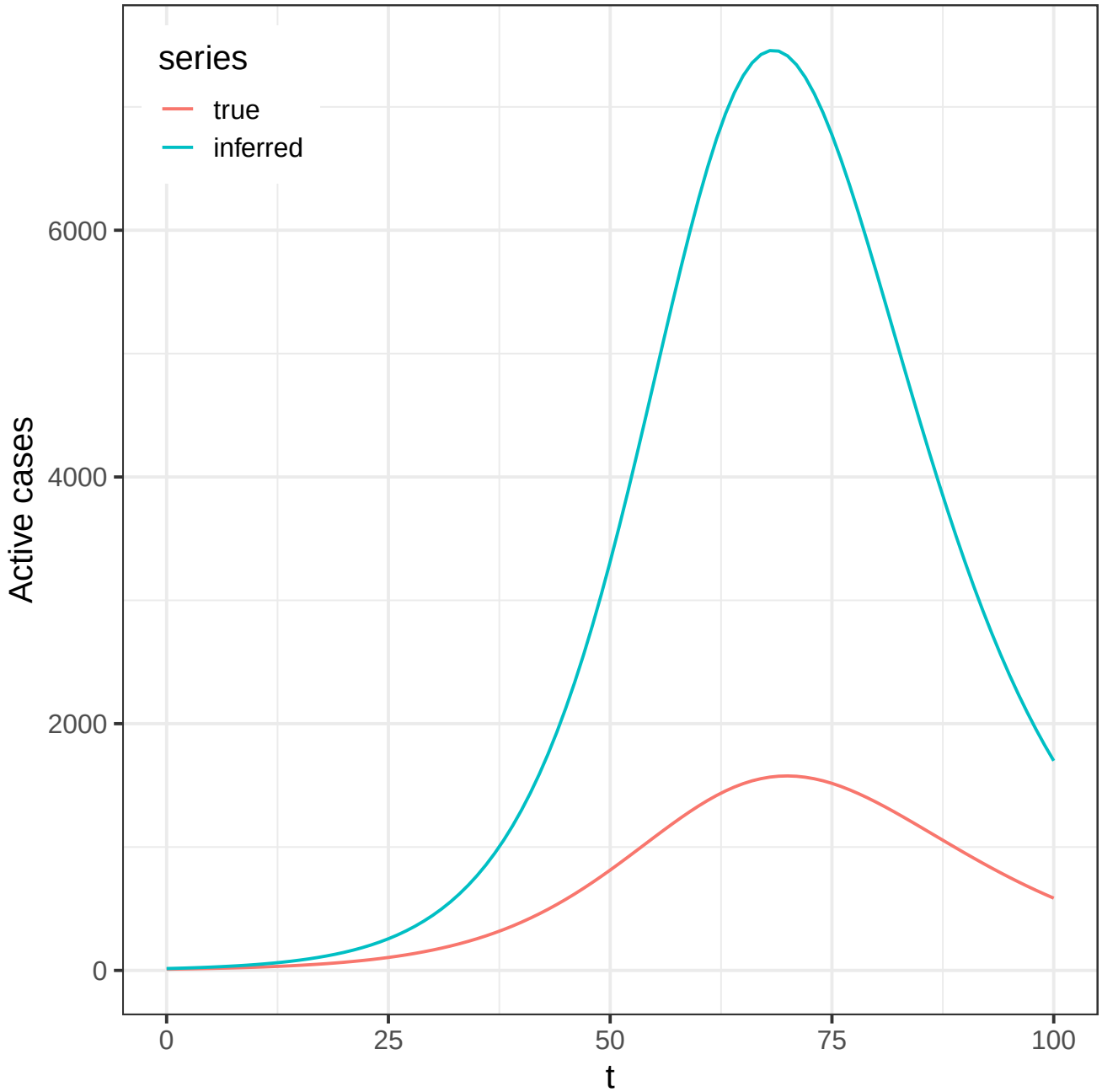

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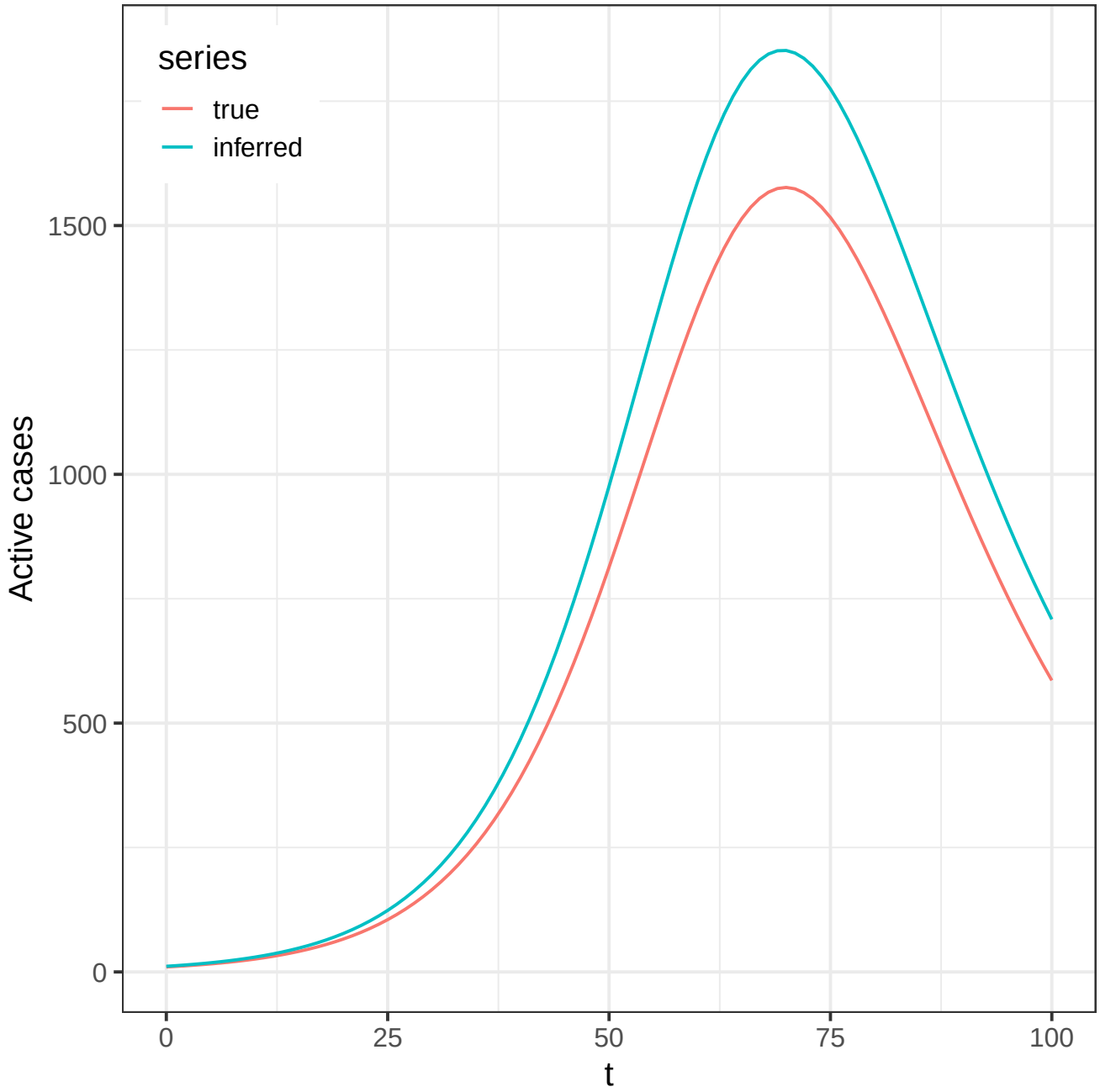

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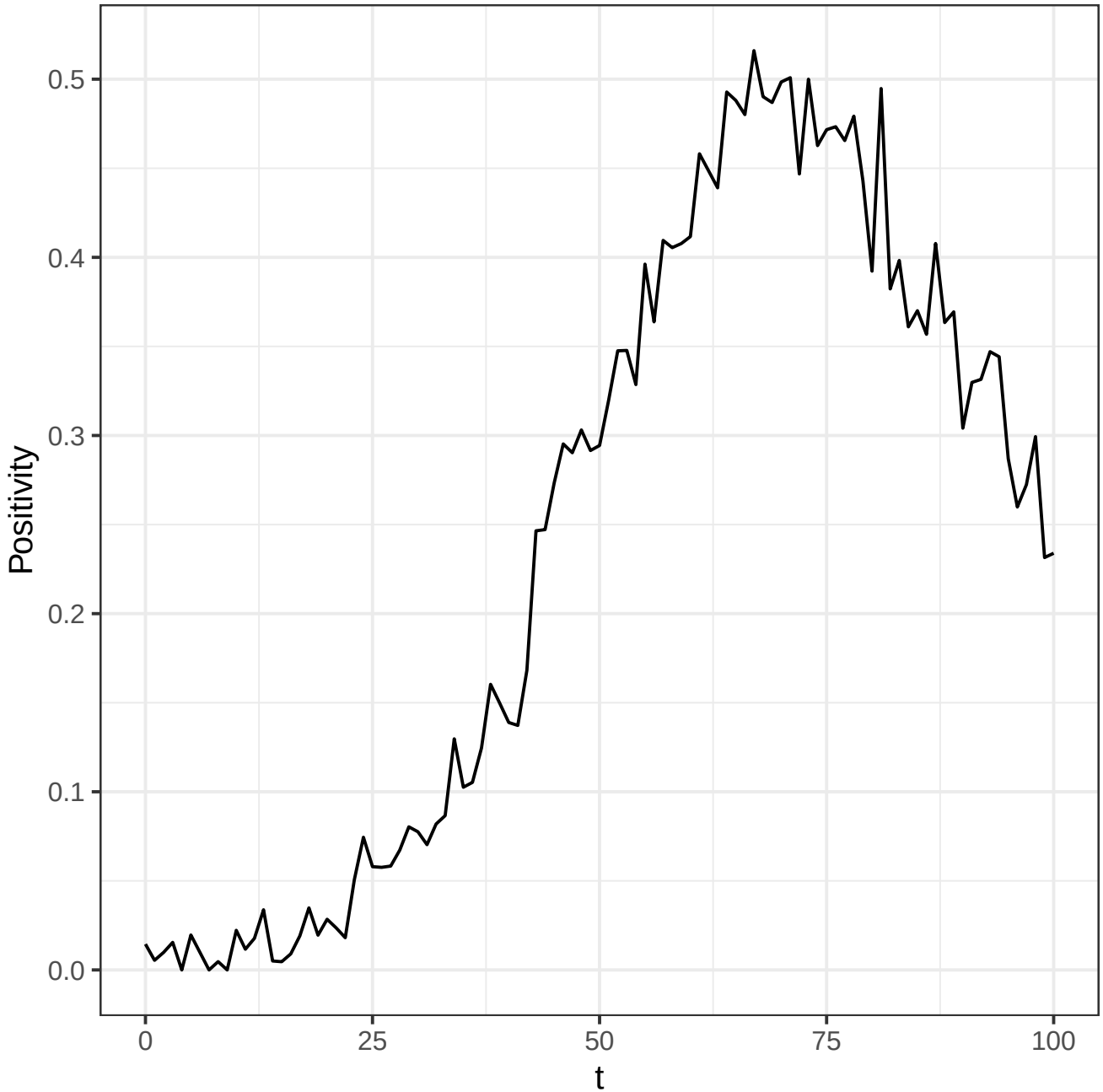

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