Review of: "Forecasting by Analogy: A Parallel between the Trend of Confirmed COVID-19 Deaths in the Winters of 2022/2023 and 2023/2024 in Italy"

Hamzah Hasyim[1]

1 Universitas Sriwijaya

Potential competing interests: No potential competing interests to declare.

Marco Roccetti's manuscript, "Forecasting by Analogy: A Parallel between the Trend of Confirmed COVID-19 Deaths in the Winters of 2022/2023 and 2023/2024 in Italy," introduces a pioneering method for predicting COVID-19 mortality trends by comparing data across two consecutive winters in Italy. Utilising data from the Italian Ministry of Health, this approach innovates and lends credibility to its findings. Despite its strengths, the manuscript could improve clarity, depth, and impact.

To enhance the manuscript, Roccetti should provide further justification for selecting specific periods for comparison and the assumptions that validate these choices, thereby enriching the study's foundation. It's crucial to delve deeper into the limitations of the analogy approach, especially considering factors such as the emergence of new virus variants, fluctuating vaccination rates, and evolving public health strategies. Understanding how these factors might affect the applicability of past trends to future predictions is essential for assessing the model's reliability.

Moreover, the manuscript would benefit from a more detailed discussion of the practical implications of its findings. Specifically, it should explore how policymakers, public health officials, and healthcare systems can use this forecasting model to better prepare for and respond to future COVID-19 waves. This might include adjustments to vaccination strategies, allocation of hospital resources, or public health communications. Incorporating some form of statistical analysis or validation of the forecasting model would significantly boost the manuscript's credibility. For instance, comparing the model's predictions with actual outcomes as they become available or conducting sensitivity analyses to understand how variations in growth or decline rates could impact predictions would provide valuable insights into the model's accuracy and reliability.

Clarifying the presentation to improve accessibility and including visual elements such as graphs to illustrate key trends could make the findings more understandable and engaging. Engaging with a broader literature on COVID-19 forecasting methods would position Roccetti's work within a wider academic discourse, highlighting its unique contributions while suggesting potential integration and improvement areas.

In conclusion, Roccetti's manuscript contributes significantly to epidemiological forecasting with its analogy-based approach to predicting COVID-19 death trends. Addressing the outlined areas for improvement could transform this innovative work into an invaluable resource for researchers, policymakers, and public health officials as they continue to

navigate the pandemic's challenges.