

Letter to the Editor

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Letter to the editor in response to ‘Seasonality of the transmissibility of hand, foot and mouth disease: a modelling study in Xiamen City, China’

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We reviewed with interest Zhao’s letter regarding our article exploring the approach of calculating the effective reproduction number (R_{eff}) [1]. We entirely agree with Zhao *et al.* that it is essential to calculate the R_{eff} by using the next generation matrix (NGM) approach. Actually, we also commonly used the NGM approach to calculate the reproduction number of other infectious diseases [2].

We did not provide the complex equation of R_{eff} from the NGM approach instead of a simplified equation in our study [1], because in Xiamen City, the values of f , daily br and daily dr were 0.0003 (0.03%), 2.46×10^{-5} and 1.24×10^{-5} , respectively, which were much lower than those of ω (1/5), γ (1/14) and γ' (1/21), respectively. We also calculated the values of R_{eff} by using the simplified equation we used and the two equations provided by Zhao *et al.*, and we found that they were almost the same (Fig. 1).

Therefore, we agree to use an accurate approach to estimate the transmissibility of an infectious disease. However, a simplified equation would be easier to be performed by the primary public health department than a complex one.

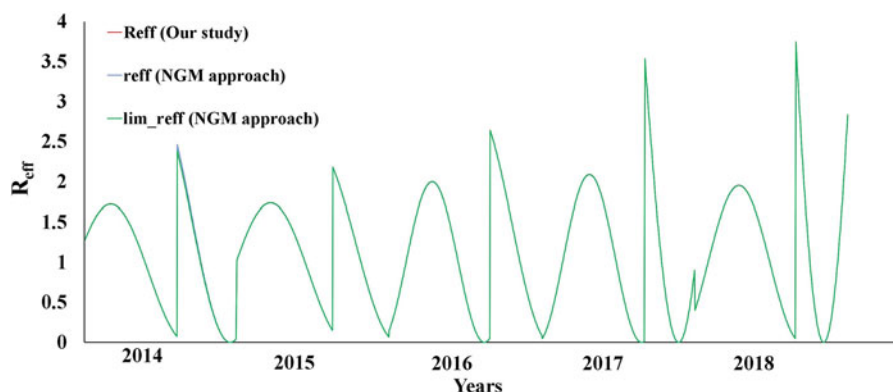


Fig. 1. The values of R_{eff} calculated by three equations in Xiamen City, 2014–2018.

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