Supporting Information

The age profile of respiratory syncytial virus burden in pre-school children of low- and middle-income countries: A semi-parametric, meta-regression approach

S2. Supplementary Results: Spline Validation

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S2-1  Spline model predictions versus observations: within-sample validation

S2-1.1  Fit-vs-observed: Community-based incidence

Figure A: Spline model predictions versus observed estimates of community-based incidence in lower-middle-income countries (LMICs). Each of the lines represents a random model prediction. The observed incidence estimated from each age group is placed at the midpoint of the age group, and the bars represent the 95% confidence interval of the incidence in that age group.
Figure B: Spline model predictions versus observed estimates of community-based incidence. Each of the lines represents a random model prediction. The observed incidence estimated from each age group is placed at the midpoint of the age group, and the bars represent the 95% confidence interval of the incidence in that age group.
S2-1.2 Fit-vs-observed: Hospital-based incidence

Low-income countries (LIC)

Figure C: Spline model predictions versus observed estimates of hospital-based incidence in LIC settings. Each of the lines represents a random model prediction. The pink lines represent predictions from the model estimated without a predictor for the country-level income group and the blue lines represent a model with the income group as a predictor. The observed incidence estimated from each age group is placed at the midpoint of the age group, and the bars represent the 95% confidence interval of the incidence in that age group.
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S2-1.3  Fit-vs-observed: Probability of hospitalization among cases in the community

Figure H: Spline model predictions versus observed estimates of the probability of hospitalization among cases in the community in countries across all income groups. Each of the lines represents a random model prediction. The observed probability estimated from each age group is placed at the midpoint of the age group, and the bars represent the 95% confidence interval of the probability of hospitalization in that age group.
Fit-vs-observed: Probability of death among hospitalized cases

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S2-2 Spline model predictions versus observations: out-of-sample validation

S2-2.1 Out-of-sample validation: Community-based incidence

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S2-2.3 Out-of-sample validation: Probability of hospitalization among cases in the community

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S2-2.4 Out-of-sample validation: Probability of death among hospitalized cases

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S2-3  Spline model predictions versus observations: within-sample validation for severity outcomes

S2-3.1  Fit-vs-observed: Probability of severe cases among community-based incidence studies

Figure AB: Spline model predictions versus observed estimates of the probability of severity among cases in community-based studies. Each of the lines represents a random model prediction. The observed probability estimated from each age group is placed at the midpoint of the age group, and the bars represent the 95% confidence interval of the probability in that age group.
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S2-3.2  Fit-vs-observed: Probability of very severe cases among community-based incidence studies

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S2-3.3 Fit-vs-observed: Probability of severe cases among hospital-based incidence studies

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