




Author Correction: Temporal dynamics in viral shedding and transmissibility of COVID-19

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Peter Ashcroft, Sebastian Bonhoeffer and colleagues at ETH Zurich very helpfully alerted us to a syntactical error in our original code, specifically that the likelihood as we had originally specified gave rise to zero probability for two transmission pairs with the most negative serial intervals. Following their lead, we also applied a normalization factor in the likelihood to account for the uncertainty in the symptom-onset dates of the index cases. However, assuming a uniform distribution, the likelihood would differ only by a multiplicative constant and would give the same estimates. We used the bootstrap method to estimate the 95% confidence intervals (CIs).

Thus, we re-estimated the infectiousness profile (Fig. 1c; original and corrected versions provided here) and found that the proportion of presymptomatic transmission was 44% (95% CI, 30–57%) (unchanged from the original point estimate of 44%), whereas infectiousness started at 12.3 days (95% CI, 5.9–17 days) (versus 2.3 days in the original text) before symptom onset and peaked at onset (95% CI, –0.9–0.9 days) (versus –0.7 days in the original text). In the revised sensitivity analysis assuming start of infectiousness at days 5, 8 and 11 prior to symptom onset, we estimated that the proportion of presymptomatic transmission was 37–48% (versus 46–55% in the original text) (Extended Data Fig. 1; original and corrected versions provided here).

Fig. 1c shows that infectiousness started to rise substantially only 5–6 days before symptom onset, around the average time of infection, assuming an incubation period of about 6 days (J.A. Backer, D. Klinkenberg & J. Wallinga, *Eurosurveillance* 25, 10–15; 2020). We further observed that only <0.1% of transmission would occur before 7 days, 1% of transmission would occur before 5 days and 9% of transmission would occur before 3 days prior to symptom onset. Therefore, from a contact-tracing viewpoint, it may be adequate to enquire about

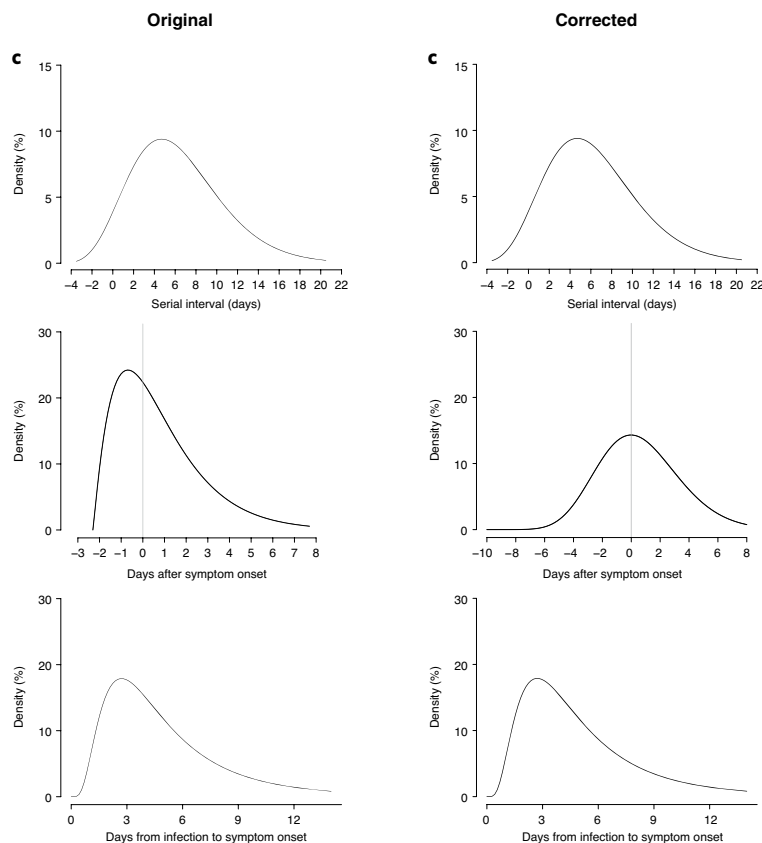
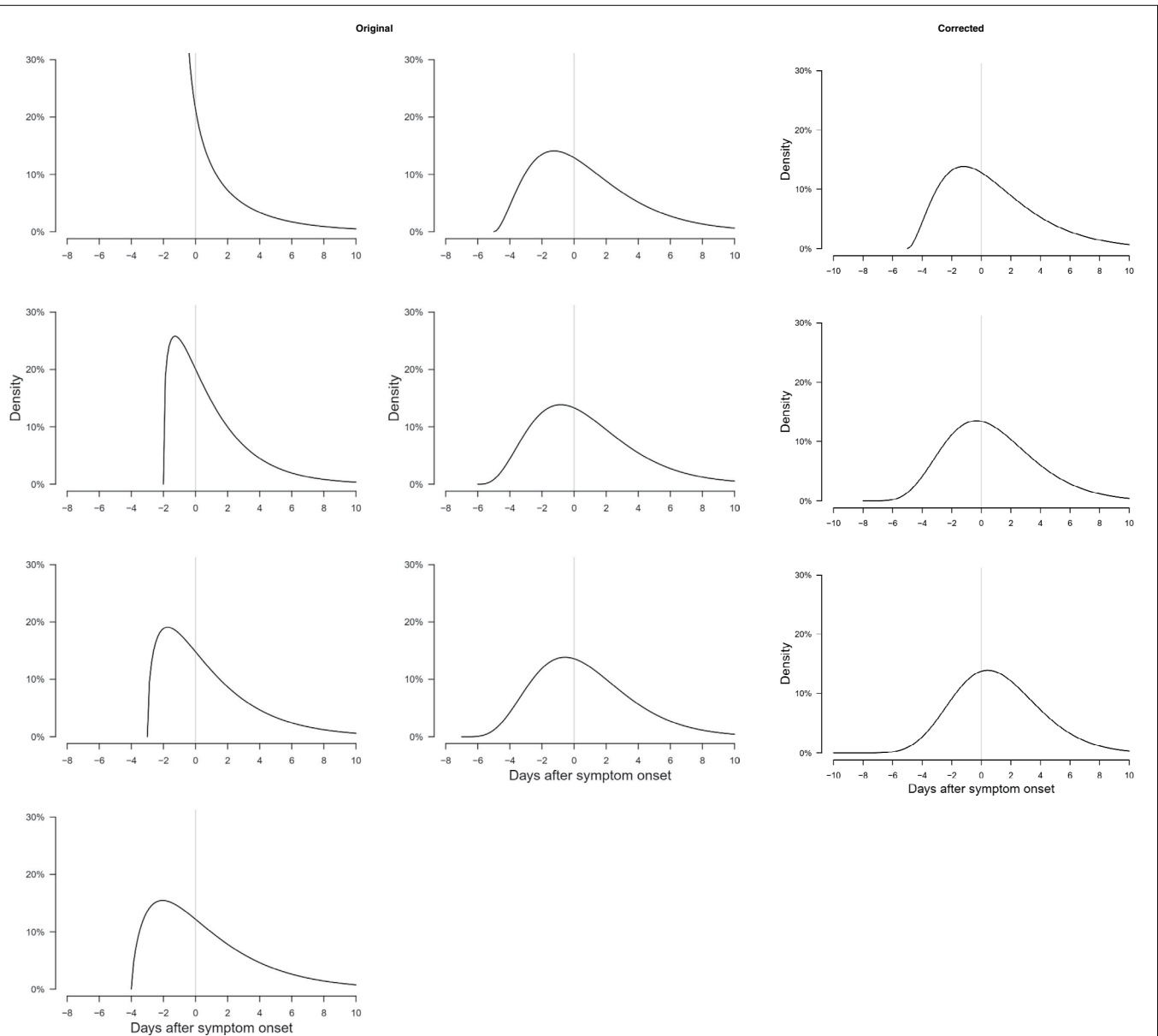


Fig. 1c | Original and corrected.



Extended Data Fig. 1 | Original and corrected.

close contacts up to 3 days before the index first shows symptoms. Thus, our conclusions about the proportion of presymptomatic spread and time window of interest for contact tracing remain unchanged with the re-estimated infectiousness profile.

Therefore, in the version of this article initially published, the 95% CI in parentheses in the third sentence of the abstract and the original third sentence of the sixth paragraph in the main body of the text (25–69%) was incorrect. The correct CI is 30–57%. The time frames (and 95% CI values) in the second sentence of that sixth paragraph (“started from 2.3 days (95% CI, 0.8–3.0 days) before symptom onset and peaked at 0.7 days (95% CI, –0.2–2.0 days) before symptom onset”) were incorrect. The correct time frames (and CI values) are “started from 12.3 days (95% CI, 5.9–17.0 days) before symptom onset and peaked at symptom onset (95% CI, –0.9–0.9 days).” The following sentence (from the text above) is now included after that second sentence: “We further observed that only <0.1% of transmission would occur before 7 days, 1% of transmission would occur before 5 days and 9% of transmission would occur before 3 days prior to symptom onset.”

The values in the seventh paragraph of the main body of the text (“from 1 to 7 days”; “0–2 days before symptom onset”; and “46% to 55%”) were incorrect. The correct values are “from 5, 8 and 11 days”; “2 days before to 1 day after symptom onset”; and “37% to 48%” (respectively).

The time frame in the first sentence of the tenth paragraph of the main body of the text (“2 to 3 days”) was incorrect. The correct time frame is “5 to 6 days.”

The following text is now added to the beginning of the fourth paragraph of the ‘Statistical analysis’ subsection of the Methods section: “A normalization factor can be added to account for the uncertainty in the symptom onset dates of the index cases. Assuming a uniform distribution, the likelihood would only differ by a multiplicative constant and give the same estimates.” Also, the time frame in the final sentence of that paragraph (“from day 1 to 7”) was incorrect. The correct time frame is “from days 5, 8 and 11.”

Finally, Fig. 1c and Extended Data Fig. 1 have been replaced accordingly, and the legend to Extended Data Fig. 1 (“to start from 1 days (top left) to 7 days (bottom right) before symptom onset”) is now rephrased (“to start from 5 days (top), 8 days (middle) and 11 days (bottom) before symptom onset”) to match the revised figure.

The errors have been corrected in the HTML and PDF versions of the article.



The original code has also been replaced with updated code in Supplementary Software 1.

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Author Correction: Sampling the host response to SARS-CoV-2 in hospitals under siege

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In the version of this article initially published, an author name in the Mount Sinai COVID-19 Biobank Team list (‘Gavin Grimes’) was incorrect. The correct name is ‘Gavin Gyimesi’. The error has been corrected in the HTML and PDF versions of the article.

*A list of authors and their affiliations appears online.

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