

Supplemental Online Content

Chung E, Chow EJ, Wilcox NC, et al. Comparison of symptoms and RNA levels in children and adults with SARS-CoV-2 infection in the community setting. *JAMA Pediatr*. Published online June 11, 2021. doi:10.1001/jamapediatrics.2021.2025

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable. Statistical results table of adjusted and unadjusted differences in mean SARS-CoV-2 Orf1b Ct values by various subgroup comparisons

Comparison	Unadjusted Ct Values		Adjusted ^a Ct Values	
	Difference	p-value	Difference	p-value
Symptomatic ^b children vs. symptomatic adults	-1.51	0.07	-0.66	0.41
Asymptomatic ^c children vs. asymptomatic adults	-1.09	0.52	-0.57	0.74
Symptomatic children vs. asymptomatic children	-2.99	0.02	-3.02	0.02
Symptomatic adults vs. asymptomatic adults	-2.57	0.04	-2.92	0.01
All children vs. all adults	-0.55	0.42	0.29	0.67

Abbreviations: Ct: cycle threshold

^aAdjusted for swab type

^bSymptomatic participants reported at least one sign or symptom (including: runny or stuffy nose, fever, headache, cough, fatigue, sore throat, muscle or body aches, chills, sweats, loss of smell or taste, diarrhea, eye pain, nausea or vomiting, trouble breathing, ear pain or discharge, or rash) within the 7 days prior to enrollment

^cAsymptomatic participants were those who reported no symptoms at time of enrollment.

eFigure 1. Quick Start Guide included in each participant sample collection kit with instructions for self-swabbing.

STEP C: Carefully package and ship your swab

Please follow these instructions carefully;
we will be unable to test your swab if you do not.

1. Insert your tube into the specimen transport bag through the opening in the middle of the white sticker at the top of the bag.



2. Remove the white adhesive sticker at the top of the bag and discard it.

3. Then seal the bag by folding at the slit opening. The star should align inside the box printed on the bag.



4. Please wash your hands again.

5. Place the specimen transport bag back into the box provided.



6. Place the closed box into the prepaid mailer bag.



7. Seal the bag by removing the adhesive strip.

8. Send it back **ASAP** by following the instructions on the **How to Return** card included in your kit.

Your test result

Your test result will be available on <https://scanpublichealth.org/results> once it has been processed. You will need your barcode number and date of birth to check your results. Please allow 2–3 days after your kit has been returned for the status to update in the online portal.

If you are sick, please follow Public Health Seattle King County's recommendations for infection control. Visit: kingcounty.gov/covid

SCAN
GREATER SEATTLE CORONAVIRUS
ASSESSMENT NETWORK STUDY

Quick Start Guide

Thank you for your participation!

Please follow the steps outlined in this guide for taking a swab and mailing it back to us.

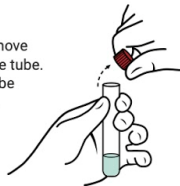
If you have any questions, contact us at support@scanpublichealth.org seven days a week or **206-616-5859** Monday through Friday from 9 am to 5 pm PST.

START BY UNFOLDING THIS PAMPHLET →

STEP A: Collect your nasal swab

1. Please blow your nose and wash your hands thoroughly before you begin.

2. Loosen and remove the cap from the tube. Careful! - the tube contains liquid.

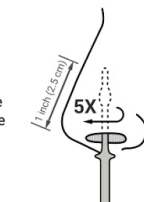


3. Remove the swab from packaging.



4. Insert swab halfway up the nose (about 1 inch).

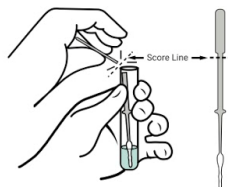
5. Press swab against the side of your nose. Move the swab in a circle 5 times so it touches as much of the inside of your nose as possible.



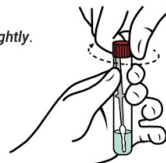
6. Place the swab into the solution in the provided tube.



7. Break the swab handle at the score line (break line) by bending back and forth.

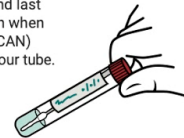


8. Screw cap on **tightly**.



9. Write your first and last name* (as written when you enrolled in SCAN) and the date on your tube.

We cannot test your swab without your full name on the tube.



*Please double check the name on the tube matches the name the specific kit was addressed to.

10. Write down or use your smartphone to take a photo of your **barcode**. You'll need it to check your results later.



STEP B: Complete the Nasal Swab Collection survey sent to you by email

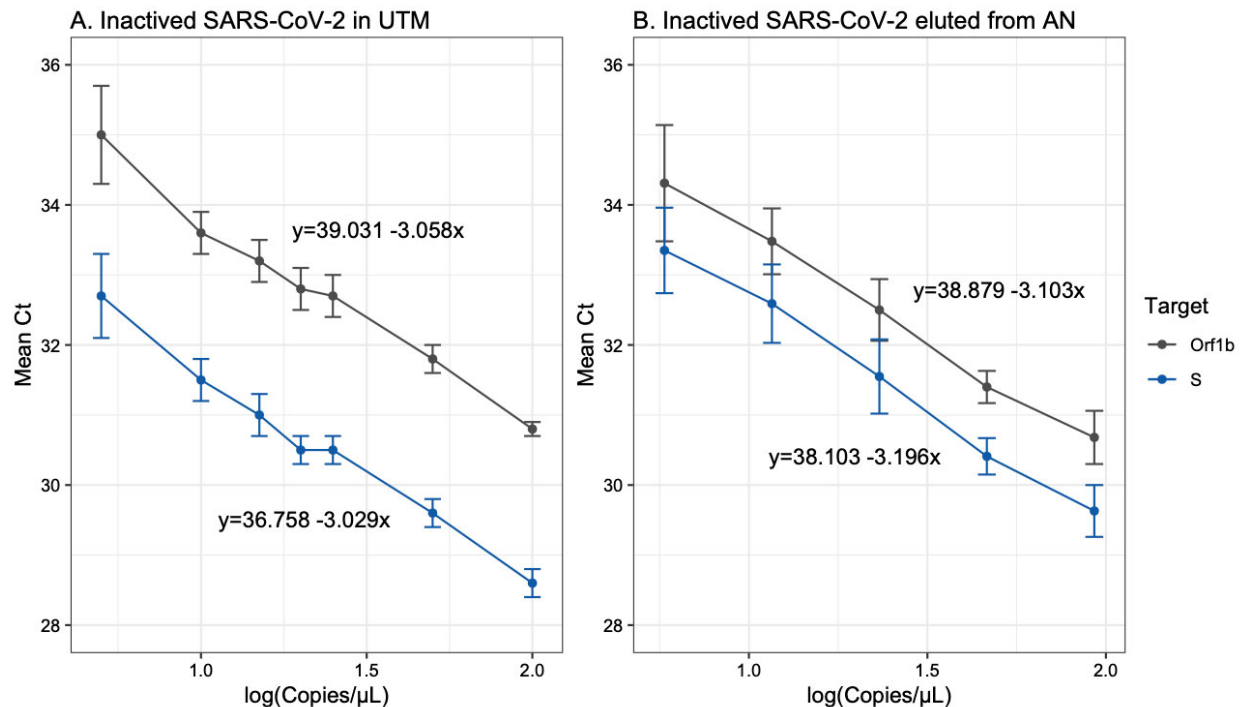
This survey was emailed or texted you when we sent your kit. You will need the barcode number that you wrote down and is printed on your kit in order to complete the survey.

CONTINUE ON TO STEP C →

eFigure 2. Standard curves for SARS-CoV-2 by collection/swab type and for Orf1b versus S gene primers.

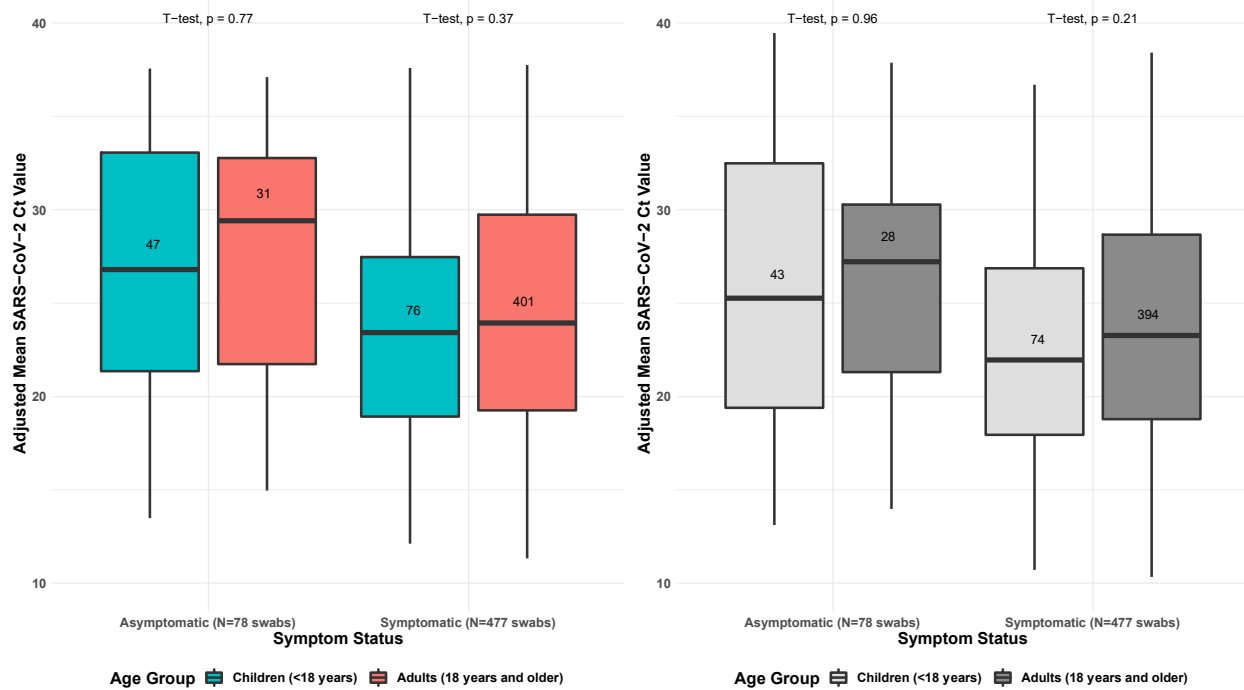
SARS-CoV-2 was diluted in UTM to approximate collection by mid-turbinate swabs.

UTM: universal transport media, AN: anterior nares, Ct: cycle threshold

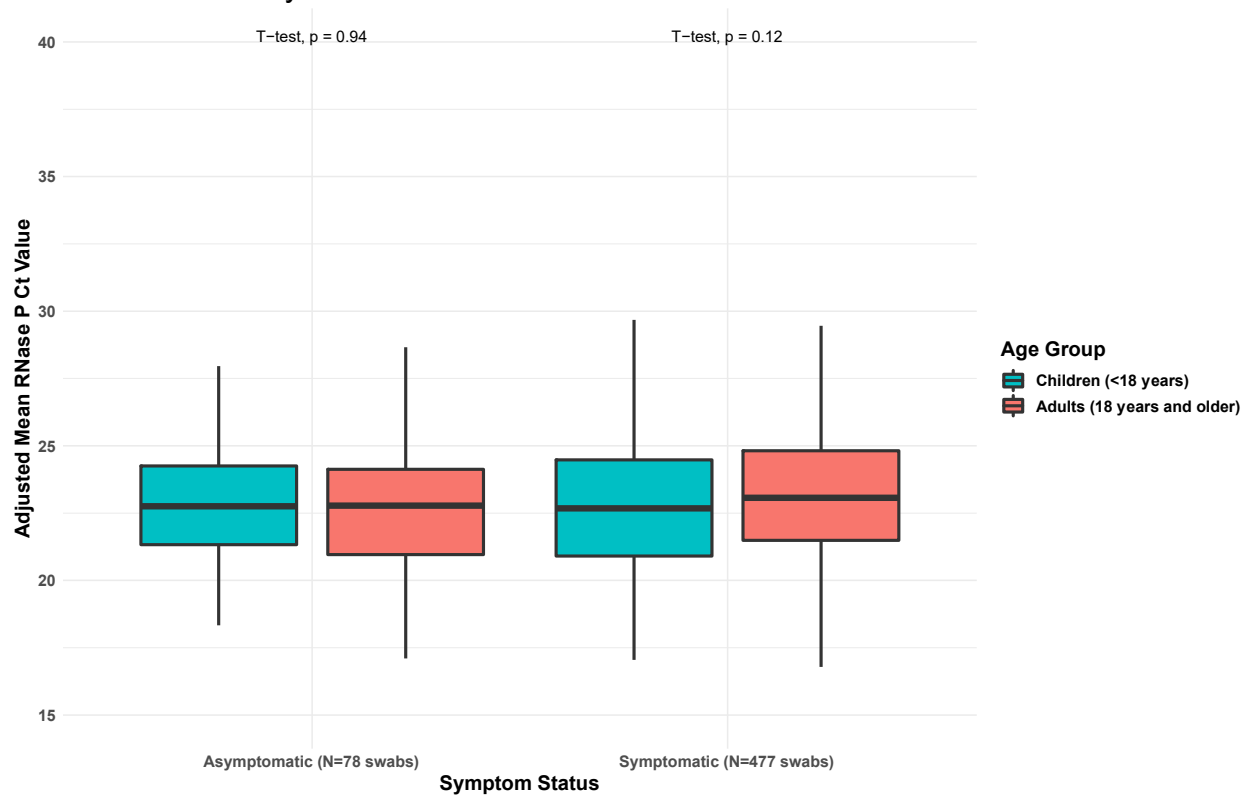


A known number of copies of inactivated SARS-CoV-2 (ATCC) was (A) diluted in composite negative specimen in universal transport media (UTM) or (B) spiked onto a US Cotton #3 Anterior Nares (AN) swab containing clinical matrix from a confirmed healthy volunteer and eluted in 1 ml PBS. For both types of samples, 200 ul each dilution was subjected to total nucleic acid extraction using a Magna Pure 96 viral small volume kit (Roche) and eluted in 50 ul. 5 ul was added to at least 10 replicate RT-qPCR reactions containing Orf1b and S probe sets. Each point is an average of the Ct values and the error bars represent standard deviation.

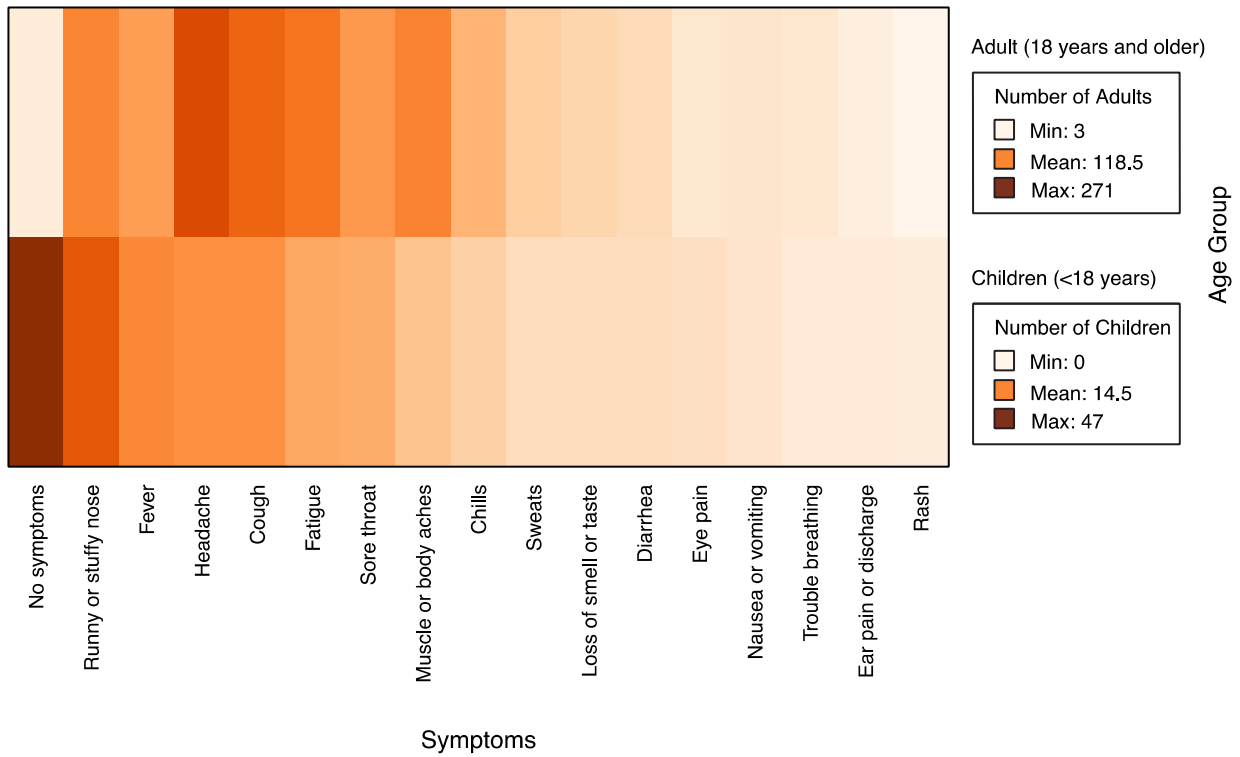
eFigure 3. Comparison of mean SARS-CoV-2 Ct values by primer
S gene primer excluded from primary analysis. Abbreviations: Ct: cycle threshold



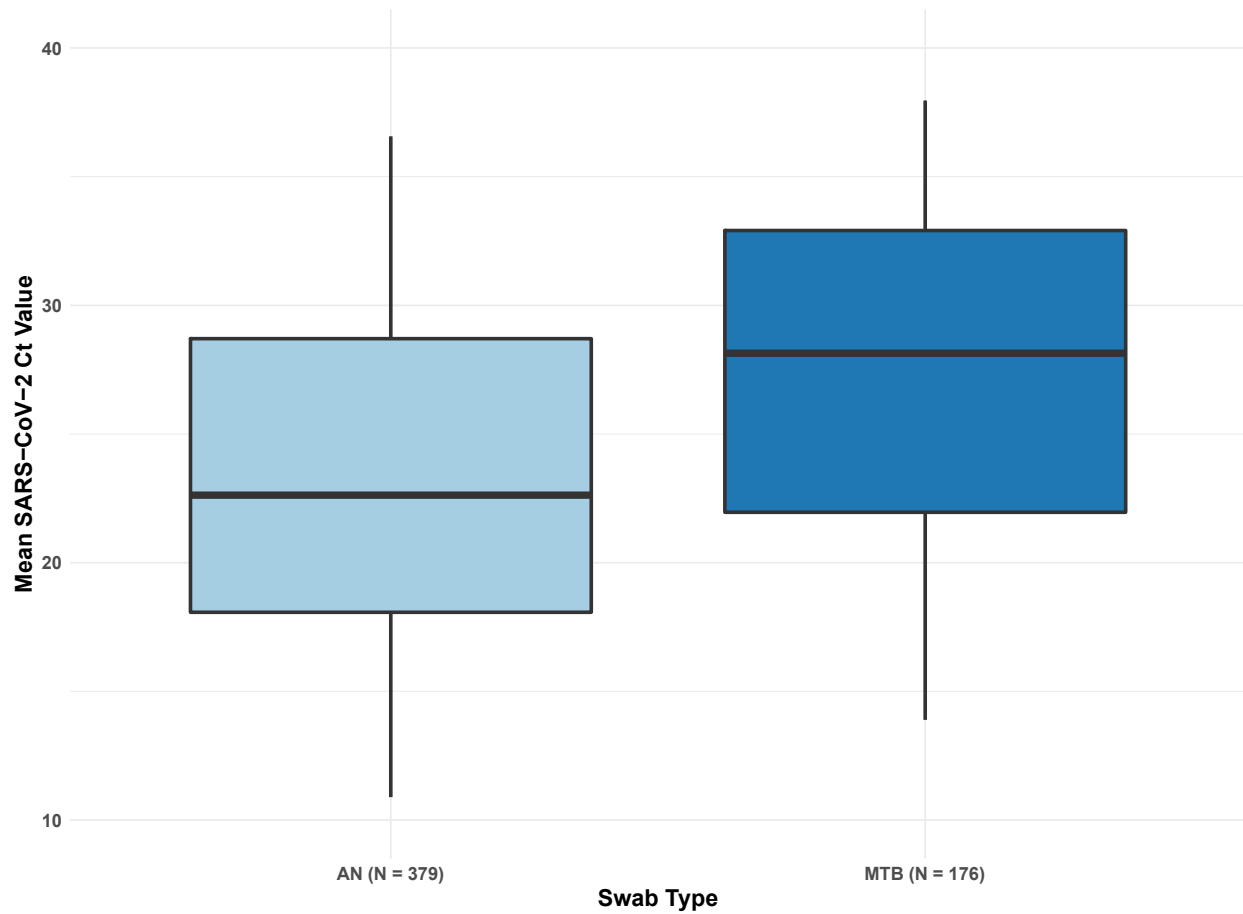
eFigure 4. Adjusted mean RNase P Ct value by age and symptom status.
Abbreviations: Ct: cycle threshold.



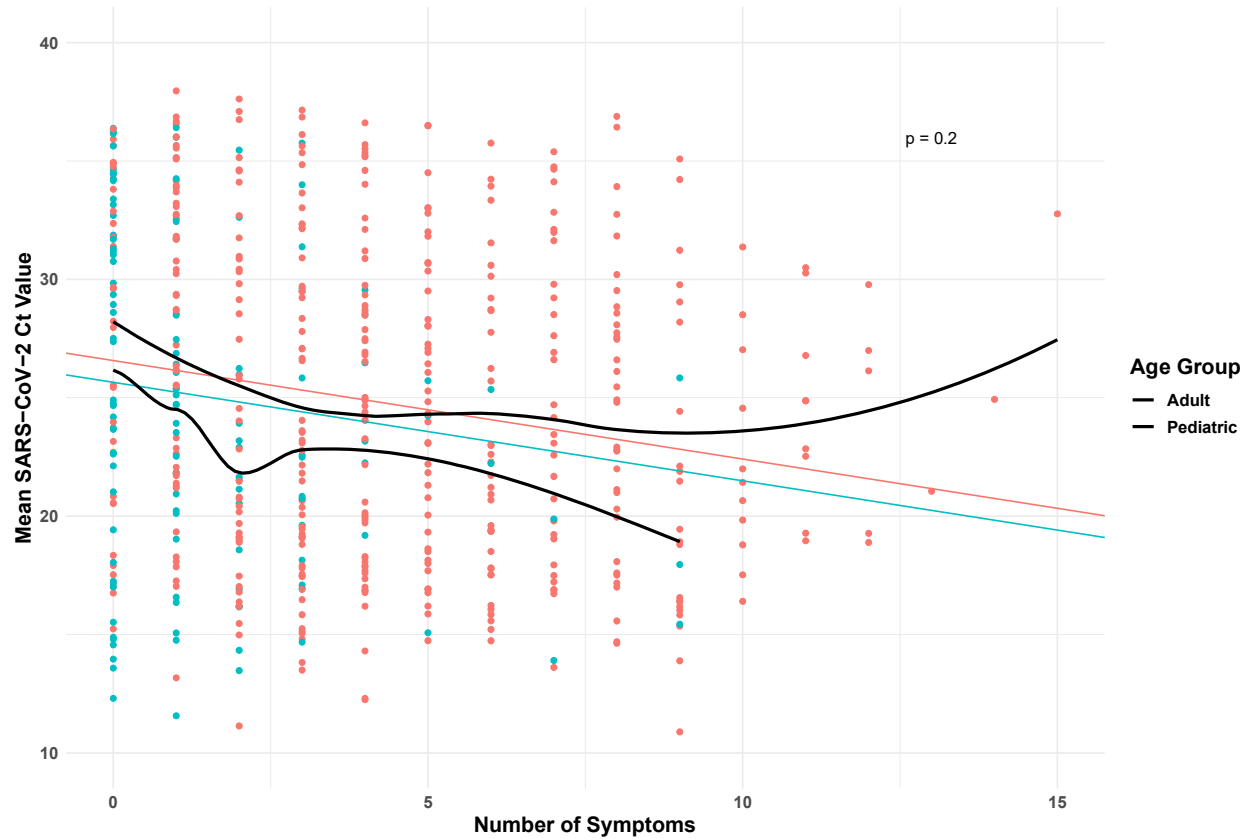
eFigure 5. Heatmap of reported number and types of COVID-19 signs and symptoms reported by participants at enrollment stratified by age group.
 Darker colors on each heatmap indicate a higher absolute number of participants reporting that symptom.



eFigure 6. Mean SARS-CoV-2 Orf1b Ct values by swab type (N=555 swabs).
Color coded by swab type. Abbreviations: AN: anterior nares, MTB: mid-turbinate, Ct: cycle threshold



eFigure 7. Mean SARS-CoV-2 Orf1b Ct value by number of reported signs and symptoms at enrollment and age groups.
 Regression lines adjusted for swab type. Scatterplot and regression lines color coded by age group. Ct: cycle threshold



eFigure 8. Unadjusted mean SARS-CoV-2 Orf1b Ct values by duration of signs and symptoms and age group.

Duration is defined as the number of days between participant reported onset of signs and symptoms and date of swab collection. Scatterplot and confidence regions color coded by age groups. Ct: cycle threshold

