Supplemental Figures: Study Workflow for Test Us At Home

Participants recruited through word of mouth or community networks

Interested participants download study app and use the enrollment code Participants complete pre-enrollment screening to determine eligibility as per **broad** inclusion and exclusion criteria, below:

Inclusion

- Age >=2
- US resident (mainland)

• Smartphone/Computer use

- Receive mail/Drop-off at FedEx
- Understands English or Spanish
 Exclusion
- Lacks capacity to consent or assent
- Facial trauma prevents nasal swab
- Incarcerated
- Lacks internet connection
- Prior positive COVID-19 test in 3 months
- Report symptoms in 14-days prior

No

Informed that they are not eligible to participate in this study.



Supplemental Figure 2: Screenshot of Study App For Determining Preferred Status



be used to determined if eligible participant is preferred at that time.





Geographic location (shipping address) may be used to determine if eligible participant is preferred at that time. Depending on preferred status criteria at that time, participants will be enrolled or placed on waitlist (Supplemental Figure 3).



Supplemental Figure 4: Screenshots of Study App Consent Flow

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Criteria	Amount			
Participants complete 1 OTC test and 1 at home sample collection* on designated test day	\$20 per test day (days 1- 13)			
Participants complete at least 5 OTC tests and at home sample collections* <u>and</u> complete all of the study related activities^	\$30 bonus			
Participants complete all 8 OTC test and all 7 at home sample collections* <u>and</u> complete all of the study related activities^	\$80 bonus			
* To be eligible for reimbursement, participant must complete collection and shipping of the sample used for comparator testing (the Quest At Home Collection kit) on the same day of testing with the OTC test if the test is performed on Monday-Thursday; for tests performed on Friday-Sunday, participant must ship the sample on Monday to be eligible for reimbursement.				
^ Study related activities include questionnaires, recording the OTC results, and for some OTC devices	uploading an image of			

the test strip to the study app



Rationale:

For the first week of enrollment, only one device was available. Up to three OTC tests available for OTC test assignment throughout the study.

In order to avoid a case-mix of tests in a specific group, assign participants with the same group code to the same OTC test assignment.

In order to avoid a case-mix of tests in a single household, assign participants with the same street address to the same OTC test assignment.

Algorithm allows the \underline{n} to be based of the following parameters at different timepoints as needed:

- Enrolled
- Asymptomatic positives
- Participants that below 18
- Other characteristics

Study Coordinator Team

Quest Team

Participants' Experience

Study App Team

Supplemental Figure 7: Quest Home Kit Orders and OTC Test Delivery

Study team:

Obtains list of newly enrolled participants to create 1 roster. Participants need to be listed on the roster 7x (7 kits).



After participants enroll in study and OTC test is assigned, the study app team automatically orders the OTC tests to be sent to the participant's address.

Participants confirm in app they have received **both OTC tests** and Quest kits before starting

This includes OTC test kits with instructions, At Home Collection kits with instructions, and prepaid return labels for At Home

Study Coordinator Team

Quest Team

Participants' Experience

Study App Team

Supplemental Figure 8: Testing Period and Results



X=Test completed on this day

Supplemental Figure 9: Testing Process

Other

None

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Test Us

Start your first test

You have 24 hours to start your first test. Select "Start Test" to begin your test.

O Start First Test

Study Hotline

Weekdays 8 AM - 9 PM EST

877-753-9083

Off hours, you can email us us and expect a response the next business day.

A cooperative effort from state and local health departments, the National Institutes of Health

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Have you had any of the following symptoms today?				
Check all that apply				
Fever or chills				
Cough				
Shortness of breath, difficulty breathing or chest discomfort				
Fatigue				
Muscle or body aches				
Headache				
New loss of taste or smell				
Feeling sick to your stomach, nausea, vomiting, or diarrhea				
Congestion, sore throat, runny nose				
Abdominal Pain				
Rash				

Start Over

Please follow the instructions and complete a Quidel test.

You will then be asked to report the results of the test.

Next

Sack Start Over Please provide the following

information about the COVID-19 test that you just took

Your test result was:

Positive Negative Invalid

Do not know

< Back

Why and How to Photograph Results

Start Over

Please take a moment to take a photograph of your Strip. This will help us improve athome testing.

Place the Test Strip on a flat surface with a solid colored background.

The SARS Antigen label should be facing upwards.

For best results, ensure good lighting, avoiding direct sunlight and shadows. Use of flash is preferable but not required.

Hold smart phone directly above the test strip, filling the screen as much as possible with the test strip. Avoid cropping any portion of the Strip.

Next

< Back

Capture or Upload Image

Start Over

di MyDataHelps™ 🖄 Español 🛛 🕩 Logout Test Us

Test complete✓

Your Wed, Sep 27th OTC test result was Negative for COVID-19.

In 15 minutes, collect the comparator specimen to help confirm these results. Since this is a Wednesday, please arrange to have the comparator specimen picked up by FedEx today (Wed, Sep 29th). If the specimen tests positive, we will contact you.

Your next test is in 2 days on Wed, Sep 29, anytime between 1:25 PM and 9:27 PM.

Come back in 2 days **Testing Journal** View All > 9/29/21

> Home

Negative for COVID-19 9:25 pm -

Account

Supplemental Figure 10: Molecular Comparator Testing and Results

Participants follow testing schedule (Supplemental Figure 8) and ship At Home Collection kits back to Quest according to instructions.

Within 48 hours of receipt of sample, Quest:

- 1. Runs sample on Roche Cobas 6800 SARS-CoV-2 PCR and Quest Laboratory Developed RT-PCR (LDT)
- 2. Reports Roche Cobas results to participant via MyQuest portal & Dept. of Health.
- 3. Roche Cobas and Quest LDT results appear in study specific Quest data stream

Study team reviews Roche Cobas and Quest LDT test results via Quest data feed & orders tiebreaker on Hologic Aptima Transcription Mediated Amplification (TMA) if Roche Cobas and Quest LDT are discordant.

- 1. Quest runs tiebreakers on Hologic Aptima
- 2. All test results (Roche Cobas, Quest LDT, Hologic Aptima) appear in studyspecific data stream for UMass Data Team.
- 3. Quest sends twice weekly chain of custody FedEx tracking report for home collection kits.
- 4. Send remnant sample back to UMass Chan

Study team communicates positive PCR results on molecular comparator assays (2/3 positive assays results as positive)

Study Coordinator Team

Quest Team

Participants' Experience

Study App Team

Supplemental Figure 11: Overview of Test Us At Home Data Flow

