

Establishing a COVID-19 Drive-Thru Testing Site

A human-centered design guide

V3 - April 2020

DESIGN
INstitute for
HEALTH

Purpose

The primary intent of drive-thru screening and testing sites is to provide a **high-throughput, rapid-response, community-accessible resource that diverts patient traffic away from critical infrastructure such as hospitals and clinics**. The intent of this document is to serve as a resource to those who need to stand up such a site. In addition to site layout, staffing, workflow and process considerations, this document contemplates the underlying human needs that drive behavior in these interactions (both staff and patients) – needs that, when thoughtfully addressed, help to ensure the safety and well-being of all those involved. This document also acknowledges factors affecting the health system’s priorities and pressures in situations like these.

Context

This document was built in response to on-the-ground needs in Austin, Texas by the Design Institute for Health at The University of Texas at Austin. It considered drive-thru testing needs at an academic medical center (Dell Medical School) and a local federally-qualified health center (CommUnity Care Health Centers), both in coordination with the local public health department.

A Work-In-Progress

This document is a work-in-progress, and will continue to be updated. Critically, feedback from the field will continue to improve it. This guidance is meant to be an informative, but not authoritative, resource to others looking to deploy similar services. We welcome input from any and all, and will incorporate improvements and additions as they are received. Thank you to all of those working tirelessly on the front lines in this time of need.

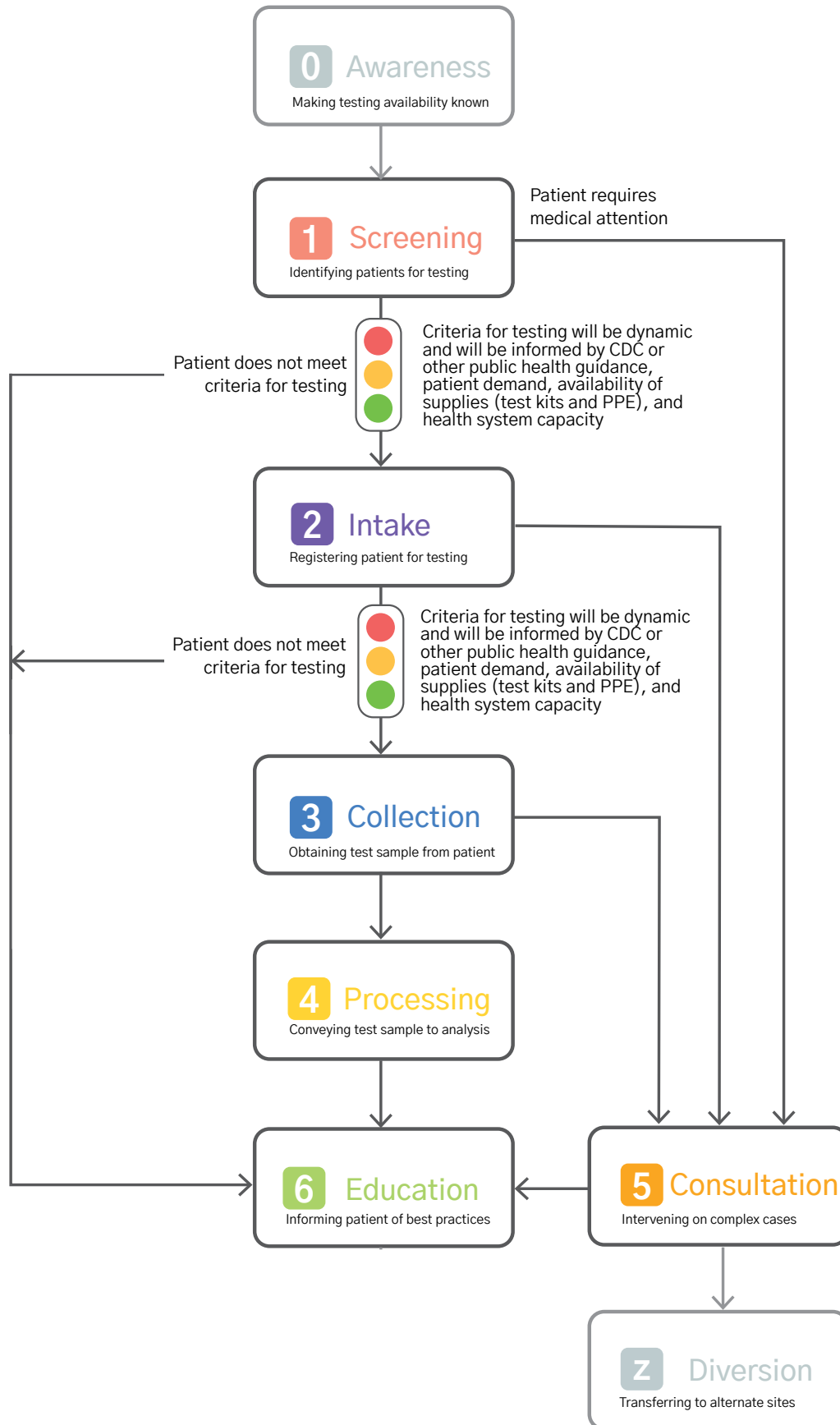
Disclaimer

The guidance provided in this document is an effort to assist those looking to establish a drive-thru COVID-19 testing site. Because individual circumstances vary, we do not make any warranties or representations about guidance provided in this document. As official recommendations from public health authorities is constantly evolving, this guide may not represent the latest updates, and we do not take responsibility for any errors or inaccuracies. Any action you take upon the information in the guide is strictly at your own risk, and we disclaim any liability for any losses and damages in connection with the use of this guide.

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PROCESS FLOW OVERVIEW



Process Flow Overview

Important note: At high patient volumes, the priority of any testing site is to maximize throughput of patients that require testing. Steps 1–4 are on the critical path in that effort. Wherever possible, patients that do not require testing, or that have circumstances that may create a bottleneck, should be diverted off the critical path in order to maximize throughput.

In each step of the process flow, this document details patient needs, staff needs, and system needs relevant to each step. There are a number of needs that cut across the entirety of the process flow and should be addressed at multiple steps. They are captured here, and expanded on in the breakdown of each step where there is additional nuance to be had. In addition, there are needs specific to each of the steps, which are detailed in the individual steps in the ensuing pages.



PATIENT NEEDS

Reassurance

Can you help me cope with the anxiety that arises from the unfamiliarity and severity of the COVID-19 situation?

Orientation

What should I expect before, during, and after visiting a testing site?

Education

What do I need to know to make the best decisions for myself and my loved ones?

Confirmation

Do I have a COVID-19 infection?



STAFF NEEDS

Defined roles and responsibilities

Where do my responsibilities begin and end, and how do I manage handoffs? Can you limit my task switching, which leads to fatigue and errors?

Contamination mitigation

Can you help keep me safe from infection?

Escalation pathways

Who do I consult for issues not under my control?

Comfort

Can you help me maintain focus by addressing environmental concerns? (Heat/cold, wind, noise, ergonomics) How and where can I take a break?

Knowledge transfer

Can you help me understand what adjustments have been made, or lessons learned, from the previous shifts?



SYSTEM NEEDS

Self-adjusting protocols

Is there an automated way to adjust protocols based on availability of assets? (Testing kits, PPE, staffing, etc.)

Capacity management

Are there responsive mechanisms for managing surges and declines in patient demand at the testing site?

Privacy

How do I ensure I manage PHI effectively?

Staffing Considerations

When evaluating the site for staffing, consideration should be given to availability of staff, training level of staff members, available volunteers, Personal Protective Equipment (PPE) availability, and site layout. The following staffing scenarios are provided as general guidance.

PERSONNEL ROLES

Staff Roles

- For Medical Assistants (MA), roles include: Screening, Intake, Collection, Processing, Education
- For Registered Nurses (RN), roles include: Screening, Intake, Collection, Processing, Consultation, Education
- For Physicians (MD), roles include: Collection, Consultation, Education

Volunteer Roles

- Health professions student (medicine, nursing, pharmacy, social work) volunteer: Screening, Education
- Non-health professions volunteer: Screening

STAFF SCENARIOS

This section provides an overview of staffing models. Full staffing refers to a complete range of providers necessary to fill all defined roles at the site. In an intermediate staffing model, no physician or advance care provider is available to provide consultation. In this case, any complex medical issues, or medical concerns not pertaining to COVID-19 screening and SARS-CoV-2 testing will be triaged by the RN. The RN will then divert the patient to other medical services. The minimum staffing necessary to run a drive-thru testing site is a nursing team, to provide clinical oversight. Intermediate and minimal staffing models demand more task-switching for staff, which can lead to fatigue and errors.

Full Staffing Model	Intermediate Staffing Model	Minimal Staffing Model
<ul style="list-style-type: none">• MA or Volunteer• RN• MD	<ul style="list-style-type: none">• MA• RN	<ul style="list-style-type: none">• RN

List of Assets

Relevant to all stations. Referenced assets can be located in the appendix section of this document.

GLOBAL PROTOCOLS & GUIDELINES

- Information Relay Protocol ([Appendix 1](#))
- Interpreter Use Guidelines ([Appendix 2](#))
- PPE Use Protocol ([Appendix 3](#))
- [Don/Doff Protocol by CDC](#)
- [PPE: Don/Doff & Preservation by Emory University](#)
- [Extended Use and Limited Reuse of N95 by CDC](#)
- [Environmental Cleaning Protocol by CDC](#)

MEDICAL PROTOCOLS & GUIDELINES

- Moderate contact sanitation protocol ([Appendix 4](#))
- Emergency Divergence Protocol ([Appendix 5](#))

ENVIRONMENT

- Pop-up Awnings or Tents (in outdoor, non-enclosed environments)
- Fan, portable freestanding air conditioner, cool suits, or space heater (Stations will require enclosing walls to maintain air temp in windy or extreme temperatures)
- Short Distance Staff-to-Patient Communication – The combination of loud environments and PPE (face shield and mask) make it difficult for staff to be heard by patients in cars, especially when abiding by distancing protocols. Compensating for that means that staff find themselves speaking at elevated volumes for prolonged periods of time, resulting in fatigue, and eventually loss of voice. One straightforward solution is to have a dedicated mobile phone, with a bluetooth headset for the staff member to wear. Patients can be asked to dial the staff's phone number from their mobile phone. This allows for conversation at normal voice levels, in spite of the ambient noise, while maintaining distancing protocols. The staff members phone should be set to auto-answer to limit contamination. Any number of other solutions can also serve to alleviate this issue, and should be considered.

LOGISTICS

- Automated protocol notifications – Because criteria for whether a patient qualifies for testing may change during the course of a day, the site should consider automated updates (text messages) that inform all staff of shifts in protocol. In the absence of automated protocols, flags or other physical indicators on site can serve as a secondary solution.

Overall Site Considerations

When choosing a site to deploy a drive-thru operation, several factors may be influential:

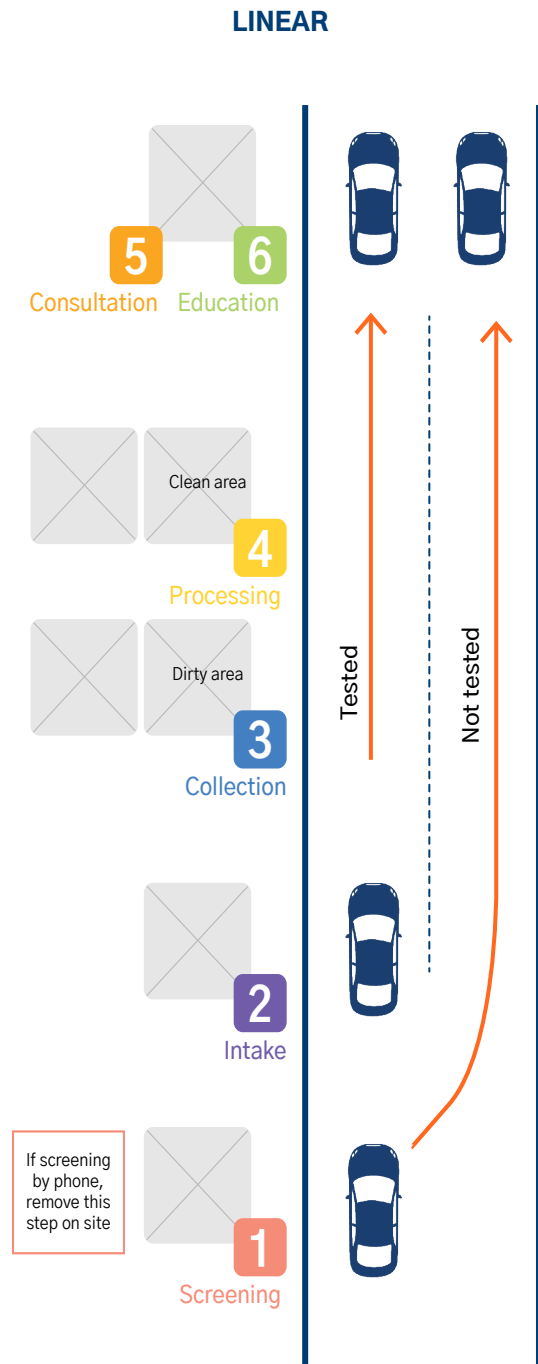
- Convenience to the target population. A large single site can optimize efficient use of staff and resources, but may make access difficult for patients are not nearby. Multiple, smaller sites improves access, and limits potential patient surges, but requires additional staff, equipment and supplies. You may want to consider convenience for your staff as well, if many of them commute by public transport (which has its own inherent risks).
- Protection from wind, noise, heat and/or cold. Large empty warehouses or garages provide environmental protection, but may not afford as much space as you might need for expected volume, and some garage layouts can be harder to navigate. Some fresh air flow is beneficial, potentially not just for infection transmission, but also because extended exposure to automobile exhaust is a health hazard for workers.
- Available separate storage for both clean and dirty set-ups if they need to be packed away in between daytime testing. This is not necessary if the site is in a contained warehouse.
- Availability of Wifi and electricity if they are necessary for technology support. Additionally, electricity may be necessary for air conditioners or space heaters depending on climate.
- Layout flexibility to accommodate overflow capacity. Large, empty parking lots from closed retail shopping centers or malls are commonly available. Minimal overlap with other businesses and traffic patterns will help limit congestion.
- Proximity to hospitals and/or clinics. Invariably, there will be patients who need more urgent attention (either for COVID-19 infection or other acute issues). Proximity to an ER, or a walk-in clinic ensure those patients can get the immediate attention they need.

LINEAR LAYOUT

SPACE-EFFICIENT, OVERLAPS TESTED AND NON-TESTED PATIENTS, LIMITED THROUGHPUT WITH HIGH PATIENT VOLUME

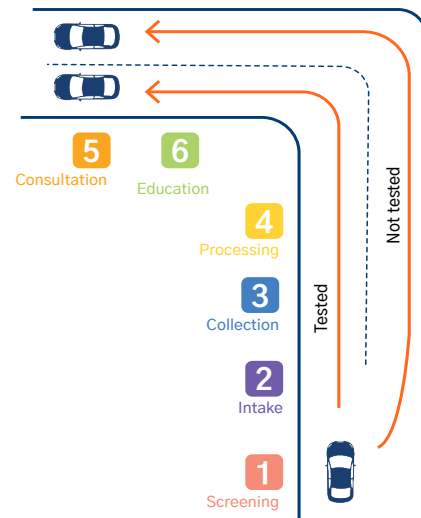
This layout has each process step laid out in serial order. It requires at minimum one lane of traffic flow. If two lanes are possible, it allows patients who don't require testing to bypass those waiting for test. This layout is the most space-efficient, but also has patients who do not qualify for testing moving with those who do, and is the layout most likely to be overwhelmed by a surge of patients.

Patients who do not qualify for testing at Step 1 (Screening) can bypass Steps 2 (Intake), 3 (Collection), and 4 (Processing), and proceed directly to Step 5 (Consultation) and Step 6 (Education). If space allows for a second lane of traffic, and for staff to be positioned on the opposite side of the vehicle traffic, a second Step 6 (Education) station can be deployed to handle additional patient follow-up conversations (not shown in diagrams below). It will require staff to cross in front of the car to speak to the driver, so safety should be considered.

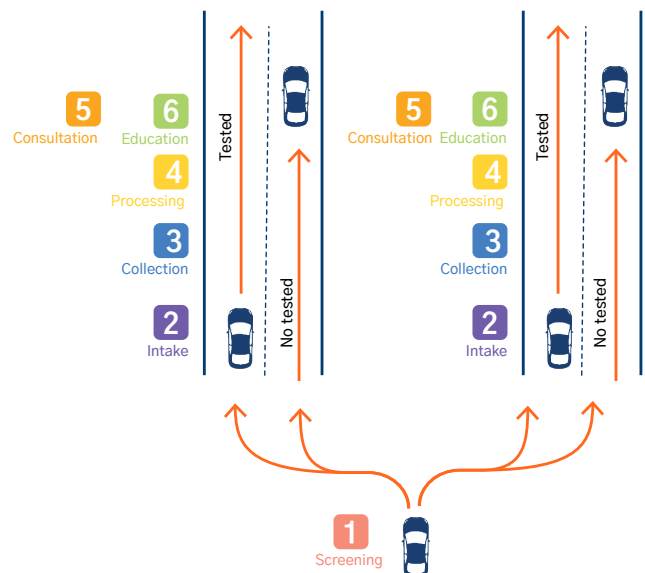


POSSIBLE VARIATIONS

“L” shape



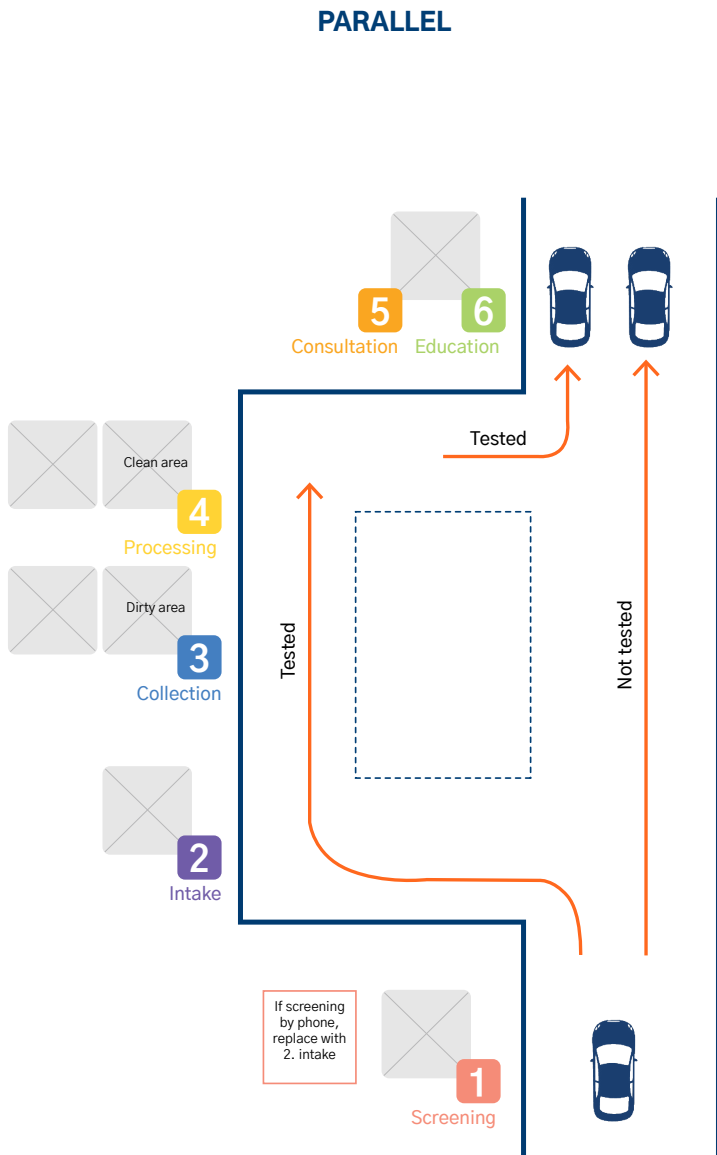
High transit



PARALLEL LAYOUT

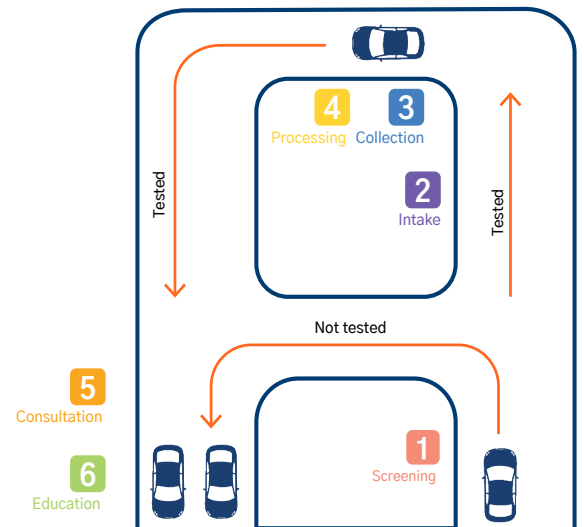
REQUIRES MORE SPACE, SEPARATES TESTED AND NON-TESTED PATIENTS, HIGHER PATIENT VOLUME CAPACITY

This layout temporarily separates patients who don't qualify for testing from those who require testing as soon as they clear Step 1 (Screening). This layout allows isolation of patients who require testing into a separate workflow that doesn't occupy the same physical space as those who do not. A single station can serve both Step 5 (Consultation) and Step 6 (Education), but importantly, receives patients who have been tested, and those who have not tested, from different directions, allowing for a measure of separation. This layout diverts patients who don't qualify for testing directly to Steps 5 and 6, before exiting. Alternative orientations (U-shaped, for example) for the parallel layout allow for exit from the same direction as entry.

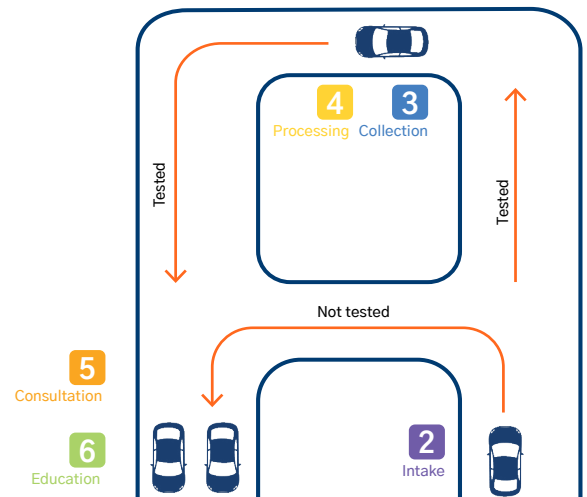


POSSIBLE VARIATIONS

"U" shape



Without 1. Screening

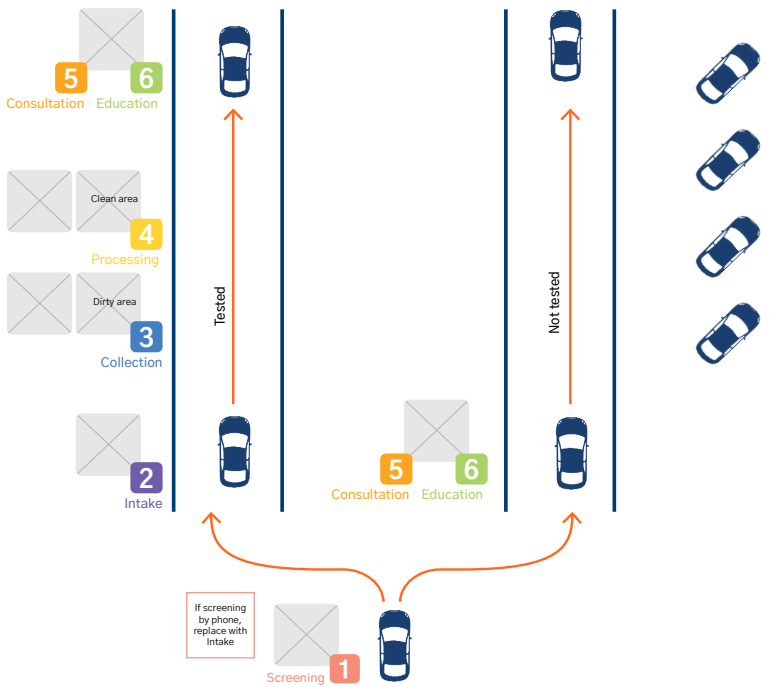


SEPARATION LAYOUT

REQUIRES MOST SPACE, SEPARATES TESTED AND NON-TESTED PATIENTS, GREATEST PATIENT VOLUME CAPACITY

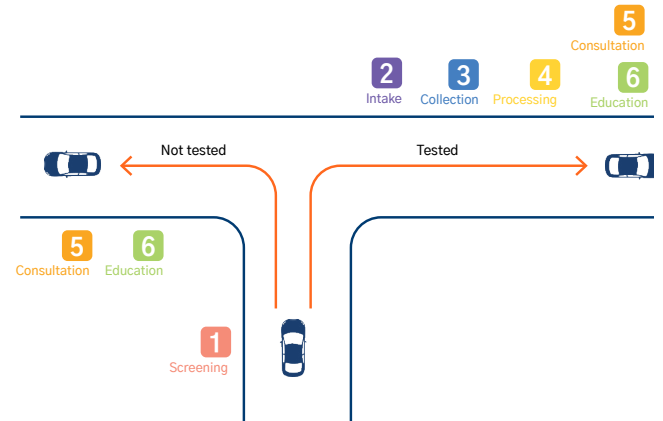
This layout permanently separates patients who don't qualify for testing from those who require testing as soon as they clear Step 1 (Screening). This layout allows isolation of patients who require testing into a separate workflow that carries all the way through to the exit. This layout presumes a heavy load of patients who don't qualify for testing but still require a measure of (Step 6) education and possible consultation (Step 5). It also presents an option to have patients park to wait for staff for Steps 5 and 6, and turn off their cars (reducing noise and exhaust inhalation for staff, particularly important in an enclosed area such as a warehouse).

SEPARATION



POSSIBLE VARIATIONS

"Y" shape



0. Awareness (This step is not covered in detail in this document.)

PRIMARY GOAL:

Make testing availability known to target population

APPROACHES INCLUDE:

Public health department (or other governmental entity) announcements, community outreach through marketing channels or partner organizations, broadcast messaging to patient database, direct calls to known at-risk patient populations.

1. Screening

PRIMARY GOAL:

Determine if patient's self-described symptoms meet criteria for COVID-19 testing. **Screening may be conducted remotely (by phone or online) or on-site**

CONTEXT:

The Screening step is the first point-of-contact for the patient. The staff members will receive the greatest breadth of questions, and the brunt of any patient anxieties, which may be exacerbated by any underlying mental health issues. If screening is done online or over the phone, confirmatory screening may be necessary at the Intake step upon arrival at the testing site. If screening is done in-person, staff members should be rested consistently when patient volume is high.



PATIENT NEEDS

Reassurance

Can you help address my concerns about a potential infection, and this testing process?

Orientation

What should I expect in this screening process?

Education

What criteria is being utilized to determine a need for testing?

Confirmation

Are my symptoms consistent with a COVID19 infection?



STAFF NEEDS

Clear criteria

What is the screening protocol in this moment, and how will I be informed if it changes?

Triaging of anxious patients

How do I identify, assess, and manage agitated patients at-risk for disruption?

Escalation pathways

Who do I consult for issues not under my control?

Security

Who do I turn to if a safety issue arises? (on-site only)



SYSTEM NEEDS

Contact tracing

Can identification of contacts begin before confirmation of infection, to lessen burden on patient and staff if a test comes back positive?

Overlapping patient populations

How can patients who should be served by other coordinating entities be directed to the right resources?

STAFFING CONSIDERATIONS

For the Screening step in a Full Staffing Model, an MA or volunteer helps to offload burden from an RN, who could be utilized in tasks that require more advance clinical knowledge. However, confirmatory screening may then be necessary at intake, which can increase time to testing per patient.

Full Staffing Model	Intermediate Staffing Model	Minimal Staffing Model
<ul style="list-style-type: none"> • Volunteer • MA • RN 	<ul style="list-style-type: none"> • MA 	<ul style="list-style-type: none"> • RN

LIST OF ASSETS

- Medical Protocols and Guidelines
 - * [De-escalation Example guide](#)
 - * [Screening and Triage Protocol by CDC](#)
- * Education Needs Assessment

2. Intake

PRIMARY GOAL:

Capture necessary patient information for testing and follow-up, assess any medical conditions that would preclude patient from being tested

CONTEXT:

Intake is the first in-person point-of-contact if screening is done remotely, and confirmatory screening may be necessary. If Step 1 (Screening) is done in person, the Intake step may be combined with the Screening step, but will impact patient throughput at the site.



PATIENT NEEDS

Orientation

*What are the steps for the testing protocol?
How long will this take?*

Education

How does the testing protocol work?



STAFF NEEDS

Patient record

What is preferred to identify and process this patient? What is sufficient in the case where everything preferred is not available?



SYSTEM NEEDS

Capacity management

Are there responsive mechanisms for managing surges and declines?

Conservation of supplies

How can PPE be used judiciously?

Appropriate diversion

If a patient has conditions that preclude them from being tested, where should I divert the patient, and who should I inform?

STAFFING CONSIDERATIONS

For the Intake step in a Full Staffing Model, an MA or volunteer helps to offload burden from an RN, who could be utilized in tasks that require more advance clinical knowledge. If Screening was done by an MA or volunteer, confirmatory screening by an RN may be necessary to identify salient clinical issues.

Full Staffing Model	Intermediate Staffing Model	Minimal Staffing Model
<ul style="list-style-type: none"> • MA • RN 	<ul style="list-style-type: none"> • MA • RN 	<ul style="list-style-type: none"> • RN

LIST OF ASSETS

- Medical
 - * [De-escalation Example guide](#)
 - * [Screening and Triage Protocol by CDC](#)
 - * Education Needs Assessment
- Logistics
 - * Patient identification forms (manual or electronic) including payment forms, as necessary

3. Collection

PRIMARY GOAL:

Obtain a viable test sample from patient

CONTEXT:

This is the primary patient contact step, and as such, carries the highest risk for health care worker infection and contamination. The health care worker resides entirely in the “Dirty” side of the operations while working. Where at all possible, this step should be physically separate from the others. When limited staffing is available, a single staff member may incorporate adjacent steps of this process (Intake and Processing, or even Screening and Education), but will have to manage clean/dirty protocols with great care, may consume excess PPE, will be subject to substantive task-switching, and will have a significant impact on patient throughput at the site.



PATIENT NEEDS

Reassurance

How will I know if a good test sample has been acquired?

Orientation

What happens at this collection station?

Education

How is the sample being collected? How will it feel for a sample to be collected? What should I do?

Confirmation

Did the test sample look good?



STAFF NEEDS

Sample collection

How can I be confident I gathered a sufficient sample?

Contamination mitigation

How do I ensure I don't get contaminated in this moment of patient contact? How do I ensure I don't get contaminated between patients?



SYSTEM NEEDS

Sample contamination

How does the protocol prevent contamination of test samples?

Supply contamination

How does protocol and layout prevent contamination of supplies?

Staff contamination

How does protocol prevent staff contamination, particularly across clean/dirty thresholds?

STAFFING CONSIDERATIONS:

Preferably, 1 RN minimum is needed to oversee sample collection (Step 3) and sample processing (Step 4). Support staff has a potential role at these steps for resupplying equipment and assisting with sample storage, among other possible roles. Staff will need meaningful experience or training in sample collection, especially for nasopharyngeal swabbing.

Utilizing an RN or MD in this step means that they are unable to triage and consult on patients with significant medical concerns without someone a substitute to step in.

Full Staffing Model	Intermediate Staffing Model	Minimal Staffing Model
<ul style="list-style-type: none">• MA• RN	<ul style="list-style-type: none">• MD• MA• RN	<ul style="list-style-type: none">• RN

LIST OF ASSETS:

- Medical Protocols & Guidelines
 - * [Sample Collection Protocol by CDC](#)
 - * [Video on sample collection](#)
 - * Sample Handoff Protocol ([Appendix 6](#))
 - * [Hand Hygiene Protocol](#)
- Environmental
 - * Clean/dirty space layout ([Appendix 7](#))

4. Processing

PRIMARY GOAL:

Ensure sample is safely transported and tracked to analysis

CONTEXT:

This is the only step where a staff member crosses over between the “Clean” and “Dirty” sides of the operation when receiving the test sample from Step 3 for each patient. This is the only step of the process that does not require explicit patient interaction.



PATIENT NEEDS

Reassurance

Will my sample get to analysis without being compromised?



STAFF NEEDS

Sample collection

How can I be confident I gathered a sufficient sample?

Contamination mitigation

How do I ensure I don't get contaminated in this moment of patient contact? How do I ensure I don't get contaminated between patients?



SYSTEM NEEDS

Sample contamination

How does the protocol prevent contamination of test samples?

Supply contamination

How does protocol and layout prevent contamination of supplies?

Staff contamination

How does protocol prevent staff contamination, particularly across clean/dirty thresholds?

STAFFING CONSIDERATIONS:

Full Staffing Model	Intermediate Staffing Model	Minimal Staffing Model
<ul style="list-style-type: none">• MA• RN	<ul style="list-style-type: none">• MA• RN	<ul style="list-style-type: none">• RN

LIST OF ASSETS:

- Medical Protocols & Guidelines
 - * Sample Handoff Protocol ([Appendix 6](#))
 - * [Hand Hygiene Protocol](#)
- Environmental
 - * Clean/dirty space layout ([Appendix 7](#))

5. Consultation

PRIMARY GOAL:

Attend to unique patient scenarios that are either complex, or demand immediate intervention

CONTEXT:

This step is on an as-needed basis only, and will not be a part of a every patient workflow, but is critically important in patient scenarios that demand medical intervention. Examples include patients that have significant comorbidities, or patients who are severely ill and need immediate medical attention.



PATIENT NEEDS

Comorbidity

What do I do if I have a condition or conditions for which a potential COVID-19 infection represents a significant risk?

Severity

I am feeling severely ill, what should I do?



STAFF NEEDS

Triage

I need to know where to direct a patient with complicating circumstances or emergency needs.



SYSTEM NEEDS

Appropriate diversion

Patients who cannot be properly served at the testing site should be diverted to the most appropriate medical response in a timely way.

STAFFING CONSIDERATIONS:

Consultation will not be needed in every patient interaction process. We do not intend for drive-thru testing to be a replacement for primary or emergency care, nor is it a suitable context to render such care. However, given the population of patients at greatest risk for morbidity and mortality due to SARS-CoV-2 infection, there is a high likelihood that patients will present to testing with significant comorbidities and/or who are severely ill and in need of emergency medical attention.

Due to the nature of this step, it requires staffing considerations that account for clinical knowledge and decision-making ability. In lower-volume settings, Consultation may not require dedicated staffing at all times and instead be conducted on an as-needed basis when patient concerns arise. In this case, it may be appropriate to have clinical staff in other critical stations that are able to recognize the need for further consultation off the critical path. If applicable and if volumes are low,

Consultation could be staffed by the same provider as Education, when clinical knowledge and skill is appropriately high.

- Given the inherent clinical nature and potential for serious consequences related to not recognizing the need for a higher-level of care, an advanced practice provider (NP or PA) or physician is the preferred professional to staff this role.
- At a minimum, Consultation requires an RN with appropriate clinical experience to discern immediate medical needs and is empowered to direct the patient to appropriate care, whether that is a primary care provider or the emergency department.
- Advanced practice providers may not be able to fill this role in some areas if a physician is not present at the testing site.
- If an appropriate level of provider is not available to fulfill this role or testing volume is low, then Consultation may be conducted on an as-needed basis as concerns arise and off the critical path to avoid disruption to other areas of workflow while providing the needed Consultation.

Full Staffing Model	Intermediate Staffing Model	Minimal Staffing Model
<ul style="list-style-type: none"> • MD • RN 	<ul style="list-style-type: none"> • RN 	<ul style="list-style-type: none"> • RN

6. Education

PRIMARY GOAL:

Ensure patients and informal caregivers are clear about best practices, irrespective of condition

CONTEXT:

This step may represent the greatest variability in time and effort, as it depends heavily on patient state and level of knowledge. Standardized communications (paper handouts or electronic reference material) may be substantially helpful.



PATIENT NEEDS

Reassurance

Can I do anything while I wait for testing results? What should I do if I was not tested?

Orientation

When will I get my test results arrive? Who will contact me and how?

Education

How does the disease spread? How do I keep from infecting others? How do I man-



age my symptoms?

STAFF NEEDS

Education

How do I ensure the patient knows what they need to do?

Efficiency

How can I utilize my time with the patient most effectively?



SYSTEM NEEDS

Balance

How do I trade off scripted vs tailored education?

Self-service

What effective resources and guidelines can I provide the patient that don't require personal engagement?

STAFFING CONSIDERATIONS:

In general, this station should be staffed with the lowest level of provider available that is able to fulfill the role effectively. However, if need arises for a more detailed evaluation, then there should be a mechanism to route these patients to consultation, or for a higher level of provider to staff the role. For example, medical or nursing students may not be able to answer complex clinically-related questions. However, Education should not be considered as Consultation. In some cases (low volume or high staffing), it may be appropriate for Education and Consultation to be combined to one role with an appropriately skilled provider fulfilling both roles.

- Appropriately trained medical or nursing students with some clinical experience, if available, are able to staff this role effectively.
- If students are unavailable, an RN is the preferred person to staff this role.
- If a higher volume of patients present to testing with a need for more tailored instruction, then a higher level provider may become necessary.
- NPs, PAs, or MDs are not the preferred choice unless testing site is fully staffed at all other stations in order to utilize their skill set appropriately elsewhere.
- Volunteers without clinical experience may not be able to effectively answer questions posed by patients.

Full Staffing	Intermediate Staffing	Minimal Staffing
<ul style="list-style-type: none"> • Volunteer (health profession) • RN • NP • PA • MD 	<ul style="list-style-type: none"> • Volunteer (health profession) • RN 	<ul style="list-style-type: none"> • Volunteer (health profession) • RN

LIST OF ASSETS:

- Educational materials
 - * You just got tested ([Appendix 8](#))
 - * You were not tested ([Appendix 9](#))

Appendix

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Linked resources overview

Protocols are constantly changing. These were captured in April 2020.

- [Don/Doff Protocol by CDC](#)
- [PPE: Don/Doff & Preservation by Emory University](#)
- [Extended Use and Limited Reuse of N95 by CDC](#)
- [Environmental Cleaning Protocol by CDC](#)
- [De-escalation Example guide](#)
- [Screening and Triage Protocol by CDC](#)
- [Sample Collection Protocol by CDC](#)
- [Video on sample collection](#)
- [Hand Hygiene Protocol](#)

Appendix 1. Information Relay Protocol

OPTION 1

Clinical information (for communication between staff at different stations) will be placed in a plastic sleeve or bag and secured underneath the windshield wiper for transfer between stations. Educational information is provided at the end of the process flow in Station 6.

Process

- Health worker initiates screening paperwork at Station 1 and then, if patient qualifies for test, places completed screener in plastic sleeve, secures underneath windshield wiper, directs patient to Station 2. If patient requires diversion to consultation, paperwork is marked accordingly and patient is directed to Station 5.
- Health worker at Station 2 removes plastic sleeve and enclosed paperwork, collects additional intake information, places completed paperwork in plastic sleeve, secures underneath windshield wiper, directs patient to Station 3. If patient requires diversion to consultation, paperwork is marked accordingly and patient is directed to Station 5.
- Health worker at Station 4 (clean zone) removes plastic sleeve and enclosed paperwork, tells health worker at Station 3 (dirty zone) any information pertinent to sample collection, and then processes lab and visit paperwork. If Station 3 health worker determines that patient requires diversion to consultation, paperwork is marked accordingly and patient is directed to Station 5.
- Health worker at Station 4 indicates what additional consultation (only if necessary) and educational material should be provided to patient and places paperwork in plastic sleeve under windshield wiper.
- Health worker at Station 5 engages in consultation if necessary. Health worker at Station 6 provides educational material and reviews with patient. Educational material will correspond to the presence and or absence of symptoms, and or with or without a positive contact with confirmed COVID-19 patient.

OPTION 2

In the absence of enough health workers to staff a Station 5 and do an in-person review of educational material, educational material (in the form of paper handouts) can be handed directly to the patient immediately after screening (if patient does not qualify for testing), or included in the plastic sleeve (if the patient does qualify for testing), which is then removed and provided to the patient at the conclusion of sample collection.

Appendix 2. Interpreter Use Guidelines

Based on availability of interpreter to provide services. Interpreters will need to follow global protocols and match the PPE requirements of each station. Various guidance offered, and on the ground conditions will dictate nuance of implementation.

INTERPRETER AVAILABLE AT EACH STATION:

- Interpreter can be trained to administer screening tool and address patient needs and support the staff in implementing further triage and screening.

INTERPRETER AVAILABLE: VARIES BY SITE SET UP

Basic Serial

Interpreter can follow car from triage towards dirty area, maintaining proper physical distancing, and practicing proper cleaning protocols (e.g., hand hygiene)

- Can scale as needed based on availability of bilingual/multilingual staff and or number of available interpreters.

Basic Parallel

Interpreter can follow car from triage towards dirty area maintaining proper physical distancing and cleaning protocols (e.g., hand hygiene)

- Can scale as needed based on availability of bilingual/multilingual staff and or number of available interpreters.

Separate Layout

Requires interpreter at intake and testing sites; site setup may allow for transition of interpreter with vehicle based on setup

- More difficult to scale as greater spatial separation makes it increasingly difficult to cross traffic streams and proceed in timely flow.

Appendix 3. PPE Use Protocol

SUPPLY CONSIDERATION

Low Availability

Less than one week worth of supplies for whole team, supply chain insecurity.

Medium Availability

Between one and two weeks worth of supplies +/- intact supply security.

High Availability

One month worth of supplies + intact supply chain.

DISTRIBUTION CONSIDERATION

Low Risk

No physical contact. Able to maintain 6' between staff and patient

Medium Risk

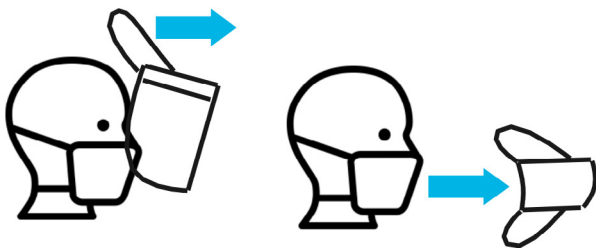
No physical contact. Unable to maintain 6' between staff and patient.

High Risk

Physical contact. Unable to maintain 6' between staff and patient.

Appendix 4. Moderate Contact Sanitation Protocol

1. Remove eye protection and face mask



2. Discard in regular waste bin



3. Remove gloves and discard in regular waste bin



4. Wash hands thoroughly with soap and warm water for at least 20 seconds or use hand sanitizer that contains at least 60% alcohol



Reference: [CDC How to Protect Yourself & Others](#)

Appendix 5. Emergency Divergence Protocol

Development of Emergency Kit. Supplemental information from [AAFP](#) based on site-specific availability.

DESIGNATION OF EMERGENCY STAGING AREA:

IF Clinic:

- Designate clinic support staff to be part of emergency response. Establish communication method to active response team based on triaging and clinical situation.

IF Free Standing:

- Designate emergency area for vehicle to pull off to. Establish roles for clinical staff related to rapid field care and basic life support; designate 911 caller and methodology to pause work flow.

Appendix 6. Sample Handoff Protocol

Sample collection to sample storage transition between dirty and clean tent.

1. See sample collection guidance.
2. Clean staff places bag on stand.
3. Dirty staff places sample into open bag
4. Clean staff removes bag by grabbing the outside from the bottom.
5. Clean staff seals bag with tape.

References:

- [MARLAP laboratory sample preparation](#)
- [AST Standards of Practice for Handling and Care of Surgical Specimens](#)
- [Surgical Specimen Handover from Operation Theater to Laboratory: A Survey](#)

Appendix 7. Clean / Dirty Space Layout

The layout of Stations 3 (Collection) and 4 (Processing) are critically important to limiting cross-contamination of test samples, supplies, and staff. Illustrated here are three potential layouts for Collection (labeled Dirty Area) and Processing (labeled Clean Area). Each has its own benefits and drawbacks:

- The 4-space layout preserves separation of Clean and Dirty areas throughout, but requires the most space to deploy. The two entry tents on the left allow personnel to don/doff PPE away from the active testing and processing zones where contamination risk is highest, and away from where the personnel from the Clean and Dirty sides interact when they transfer a collected test sample on the right side of the tents. It places hand washing/sanitizing and clean glove supplies convenient in locations convenient for swapping gloves between test samples.

- The 3-space layout combines the two entry tents from the 4-space layout into one common tent - labeled here as Anteroom/Buffer Zone. It is a more efficient layout, but has staff from the Clean and Dirty sides overlapping, which will require more care in managing cross-contamination.

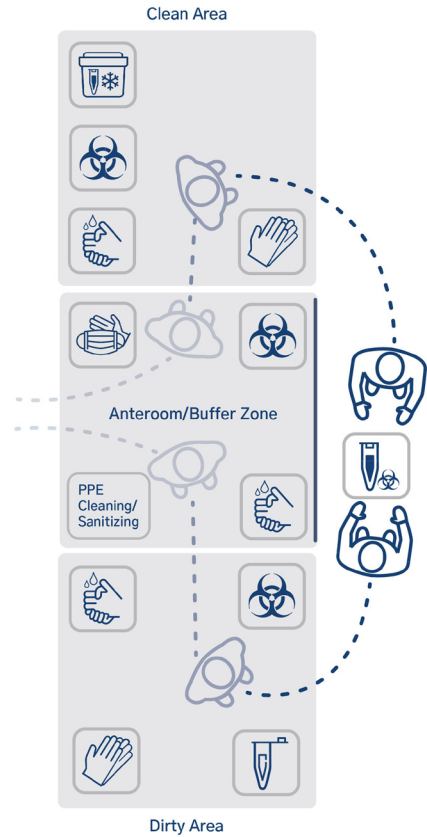
- The 2-space layout is the most space-efficient, but eliminates brings don/doff of PPE closer to the active testing and processing activities, which then requires even more care in managing cross-contamination of supplies.

Icon key

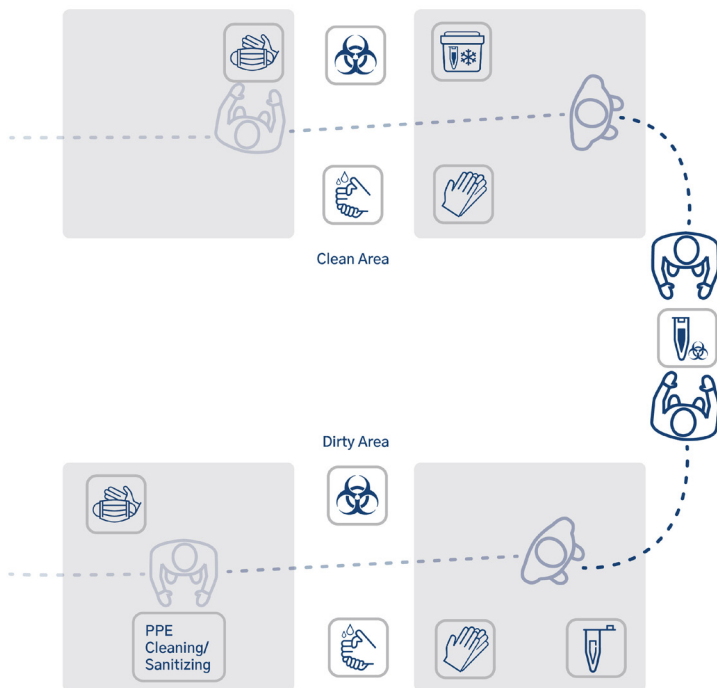


Suggested Tent Wall

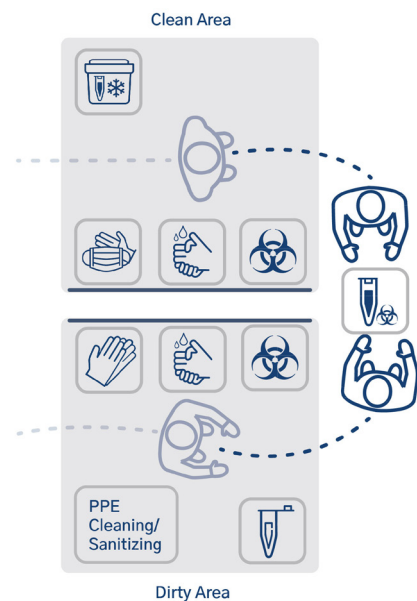
3-space layout



4-space layout



2-space layout



You just got tested, now what do you do?

Information
sourced on
March 31, 2020

You have a very important role in keeping your community safe.
Your actions will have a direct impact on preventing the spread of COVID-19.

I have symptoms.



Begin
self-isolation

I don't have symptoms, but I am
concerned I was exposed.



Begin
self-quarantine

What you need to do:

WHAT DOES SELF-ISOLATION MEAN?

- Do not leave your home.
- Do not go out to buy food or medicine – order them online or ask someone to drop them off at your home, if possible.

WHY DO I HAVE TO SELF-ISOLATE?

- You have the power to prevent the spread of this disease. Your community and your neighbors are relying on you. Your self-isolation will help prevent deaths.

HOW LONG DO I HAVE TO SELF-ISOLATE?

- You will need to self-isolate for 7 days from the start of your symptoms. If you have a fever, you must also continue to self-isolate until 3 full days after your fever disappears.

WHAT IF I LIVE WITH OTHER PEOPLE OR DON'T HAVE A PLACE TO STAY?

- Stay in a specific room away from others in your home.
- Disinfect surfaces in shared areas, like the bathroom sink.
- Wear a mask and cough or sneeze into your elbow.
- Don't have a place to stay? Call 311 to discuss options.

What you need to do:

WHAT DOES SELF-QUARANTINE MEAN?

- Stay home and limit interactions with others.
- You may leave the house to get essentials like food, but stay at least 6 feet away from others.

WHY DO I HAVE TO SELF-QUARANTINE?

- It can take up to 14 days for symptoms to appear and you may be contagious before you even feel sick.

HOW LONG DO I HAVE TO SELF-QUARANTINE?

- You will need to self-quarantine for 14 days.

WHAT IF I LIVE WITH OTHER PEOPLE OR DON'T HAVE A PLACE TO STAY?

- Disinfect surfaces in shared areas, like the sink in a bathroom.
- Cough and sneeze into your elbow.
- Don't have a place to stay? Call 311.

Look out for COVID-19 Symptoms:

If you start to develop these symptoms, you must begin self-isolation for 7 days and call your doctor.

FEVER: You feel hot to touch on your chest or back (you do not need to measure your temperature).

A NEW, DRY COUGH: Coughing a lot for more than an hour, or 3 or more coughing episodes in 24 hours (if you usually have a cough, it may be worse than usual).

SHORTNESS OF BREATH: Difficulty catching one's breath.

How to feel better:

- Drink lots of water.
- Rest and sleep as much as you can.
- Take over-the-counter medicines (like Tylenol), and follow the advice of your doctor and the Center for Disease Control.
- Manage anxiety with deep breaths.
- Take breaks from the news, including social media. It can cause anxiety to hear about the pandemic too often.

If you feel worse:

Pay attention to your symptoms.

If you feel worse and develop one of these symptoms, call your doctor or 911.

- Trouble breathing.
- Pain or pressure in your chest.
- Confusion and extreme tiredness.
- Lips or face turn blue.
- Other symptoms that are severe or concerning.

For up-to-date recommendations and resources on COVID-19 please go to austintexas.gov/COVID19 or call 311.

*Info sourced from CDC and NHS

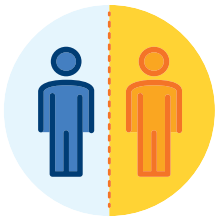
You were not tested, now what do you do?

Information
sourced on
March 31, 2020

Concerned you may have been exposed? You need to begin self-quarantine.

We understand you want answers and you may be frustrated that you weren't tested today. But there are still actions that you can take to keep you and your community safe.

What you need to do



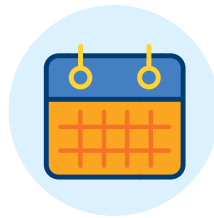
WHAT DOES SELF-QUARANTINE MEAN?

- Stay home and limit interactions with others.
- You may leave the house to get essentials like food, but stay at least 6 feet away from others.



WHY DO I HAVE TO SELF-QUARANTINE?

- It can take up to 14 days for symptoms to appear and you may be contagious before you even feel sick.



HOW LONG DO I HAVE TO SELF-QUARANTINE?

- You will need to self-quarantine for 14 days.

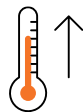


WHAT IF I LIVE WITH OTHER PEOPLE OR DON'T HAVE A PLACE TO STAY?

- Disinfect surfaces in shared areas, like the sink in a bathroom.
- Cough and sneeze into your elbow.
- Don't have a place to stay? Call 311.

Look out for common COVID-19 Symptoms

If you start to develop these symptoms, you must begin self-isolation for 7 days and call your doctor.



FEVER

- You feel hot to touch on your chest or back (you do not need to measure your temperature).



A NEW, DRY COUGH

- Coughing a lot for more than an hour, or 3 or more coughing episodes in 24 hours (if you usually have a cough, it may be worse than usual).



SHORTNESS OF BREATH

- Difficulty catching one's breath.

IF YOU START TO FEEL SICK:



How to feel better

- Drink lots of water.
- Rest and sleep as much as you can.
- Take over-the-counter medicines (like Tylenol), and follow the advice of your doctor and the Center for Disease Control.
- Manage anxiety with deep breaths.
- Take breaks from the news, including social media. It can cause anxiety to hear about the pandemic too often.



Pay attention to your symptoms.

If you feel worse

If you feel worse and develop one of the following symptoms, call your doctor or 911.

- Trouble breathing.
- Pain or pressure in your chest.
- Confusion and extreme tiredness.
- Lips or face turn blue.
- Other symptoms that are severe or concerning.

Acaban de hacerle la prueba, ¿Qué debe hacer?

Información actualizada
el 21 de Abril del 2020

Usted tiene un papel muy importante en la protección de la salud de su comunidad.
Sus acciones tendrán un impacto directo en la prevención y propagación del COVID-19.

Tengo síntomas.



Entre en aislamiento

Qué necesita saber

¿QUÉ SIGNIFICA AISLAMIENTO EN EL HOGAR?

- **No salga de su casa.**
- No salga a comprar comida o medicinas – cómprelas por internet o pídale a alguien que las lleve a su casa, si es posible.

¿POR QUÉ TENGO QUE AISLARME?

- Usted tiene el poder de prevenir la propagación de esta enfermedad. Su comunidad y sus vecinos dependen de usted. Su aislamiento ayudará a prevenir muertes.

¿POR CUÁNTO TIEMPO TENGO QUE AISLARME?

- Debe aislarse por 7 días desde el comienzo de sus síntomas. Si tiene fiebre, debe seguir en aislamiento hasta completar 3 días sin fiebre.

¿QUÉ PASA SI VIVO CON OTRAS PERSONAS O NO TENGO UN LUGAR PARA QUEDARME?

- Quédesse en una habitación lejos de otras personas en su hogar.
- Desinfecte las superficies de las áreas comunes, como el lavabo.
- Use una mascarilla (o cubierta de tela) cuando este cerca de otras personas o en lugares públicos. Y estornude en la parte interna del codo.
- Si no tiene un lugar para quedarse, llame al 311.

No tengo síntomas, pero me preocupa haber estado expuesto.



Entre en cuarentena

Qué necesita saber

¿QUÉ SIGNIFICA CUARENTENA?

- Quedarse en casa y limitar el contacto cercano con otros.
- Puede salir de la casa solo para comprar cosas esenciales como comida, pero mantenerse a al menos 6 pies (2 metros) de distancia de los demás.

¿POR QUÉ NECESITO ENTRAR EN CUARENTENA?

- El virus puede tomar hasta 14 días para mostrar síntomas, es decir que usted puede contagiar a otros antes de sentirse enfermo.

¿POR CUÁNTO TIEMPO TENGO QUE ESTAR EN CUARENTENA?

- Debe estar en cuarentena por 14 días.

¿QUÉ PASA SI VIVO CON OTRAS PERSONAS O NO TENGO UN LUGAR DONDE QUEDARME?

- Quédesse en una habitación lejos de otras personas en su hogar.
- Desinfecte las superficies de las áreas comunes, como el lavabo.
- Use una mascarilla (o cubierta de tela) cuando este cerca de otras personas o en lugares públicos.
- Si no tiene un lugar para quedarse, llame al 311.

Esté atento a los síntomas del COVID-19

Si empieza a tener estos síntomas, tiene que entrar en aislamiento por 7 días y llamar a su médico.

FIEBRE: Siente caliente al tocarse el pecho o la espalda (no es necesario tomarse la temperatura).

NUEVA TOS SECA: Toser por más de una hora, o 3 o más episodios de tos en 24 horas (si tiene tos frecuente, esta puede empeorar).

DIFICULTAD PARA RESPIRAR: Sentir que le falta el aire.

Cómo sentirse mejor:

- Tome mucha agua.
- Descanse y duerma lo más posible.
- Puede tomar medicamentos de venta libre (como acetaminofén-Tylenol) y siga los consejos de su médico y del CDC*.
- Maneje la ansiedad con respiraciones profundas.
- Tome un descanso de las noticias, incluyendo redes sociales. Leer o escuchar mucho de la pandemia puede causar ansiedad.

Si se siente peor:

O si desarrolla uno de los siguientes síntomas llame a su médico o al 911.

- Dificultad para respirar.
- Dolor o presión persistente en el pecho.
- Confusión y cansancio extremo.
- Coloración azulada en los labios o el rostro.
- Otros síntomas que sean graves o preocupantes.

Para obtener recomendaciones y recursos actualizados del COVID-19, visite austintexas.gov/COVID19 o llame al 311

*Información obtenida del Centros para el Control y la Prevención de Enfermedades (CDC) y Servicio Nacional de Salud (NHS)

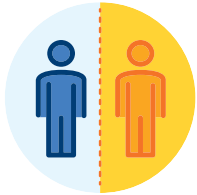
No le hicieron la prueba, ¿Qué debe hacer?

Información
actualizada
el 21 de Abril
del 2020

¿Está preocupado porque estuvo expuesto? Necesita entrar en cuarentena.

Entendemos que usted quiere respuestas y que tal vez se siente frustrado porque no le hicieron la prueba hoy. Sin embargo, todavía hay acciones que puede tomar para protegerse usted y a su comunidad.

Qué necesita saber



¿QUÉ SIGNIFICA CUARENTENA?

- Quedarse en casa y limitar el contacto cercano con otros.
- Puede salir de la casa solo para comprar cosas esenciales como comida, pero mantenerse a al menos 6 pies (2 metros) de distancia de los demás.



¿POR QUÉ NECESITO ENTRAR EN CUARENTENA?

- El virus puede tomar hasta 14 días para mostrar síntomas, es decir que usted puede contagiar a otros antes de sentirse enfermo.



¿POR CUÁNTO TIEMPO TENGO QUE ESTAR EN CUARENTENA?

- Debe estar en cuarentena por 14 días.

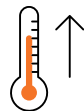


¿QUÉ PASA SI VIVO CON OTRAS PERSONAS O NO TENGO UN DONDE QUEDARME?

- Quédesse en una habitación lejos de otras personas en su hogar.
- Desinfecte las superficies de las áreas comunes, como el lavabo.
- Use una mascarilla (o cubierta de tela) cuando este cerca de otras personas o en lugares públicos.
- Si no tiene un lugar para quedarse, llame al 311.

Esté atento a los síntomas del COVID-19

Si empieza a tener estos síntomas, tiene que entrar en aislamiento por 7 días y llamar a su médico.



FIEBRE

- Siente caliente al tocarse el pecho o la espalda (no es necesario tomarse la temperatura)



NUEVA TOS SECA

- Toser por más de una hora, o 3 o más episodios de tos en 24 horas (si tiene tos frecuente, esta puede empeorar).



DIFICULTAD PARA RESPIRAR

- Sentir que le falta el aire.

SI EMPIEZA A SENTIRSE ENFERMO:



Cómo sentirse mejor

- Tome mucha agua.
- Descanse y duerma lo más posible.
- Puede tomar medicamentos de venta libre (como acetaminofén -Tylenol) y siga los consejos de su médico y del CDC*.
- Maneje la ansiedad con respiraciones profundas.
- Tome un descanso de las noticias, incluyendo redes sociales. Leer o escuchar mucho de la pandemia puede causar ansiedad.



Preste atención a sus síntomas.

Si se siente peor

O si desarrolla uno de los siguientes síntomas llame a su médico o al 911.

- Dificultad para respirar.
- Dolor o presión persistente en el pecho.
- Confusión y cansancio extremo.
- Coloración azulada en los labios o el rostro.
- Otros síntomas que sean graves o preocupantes.

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