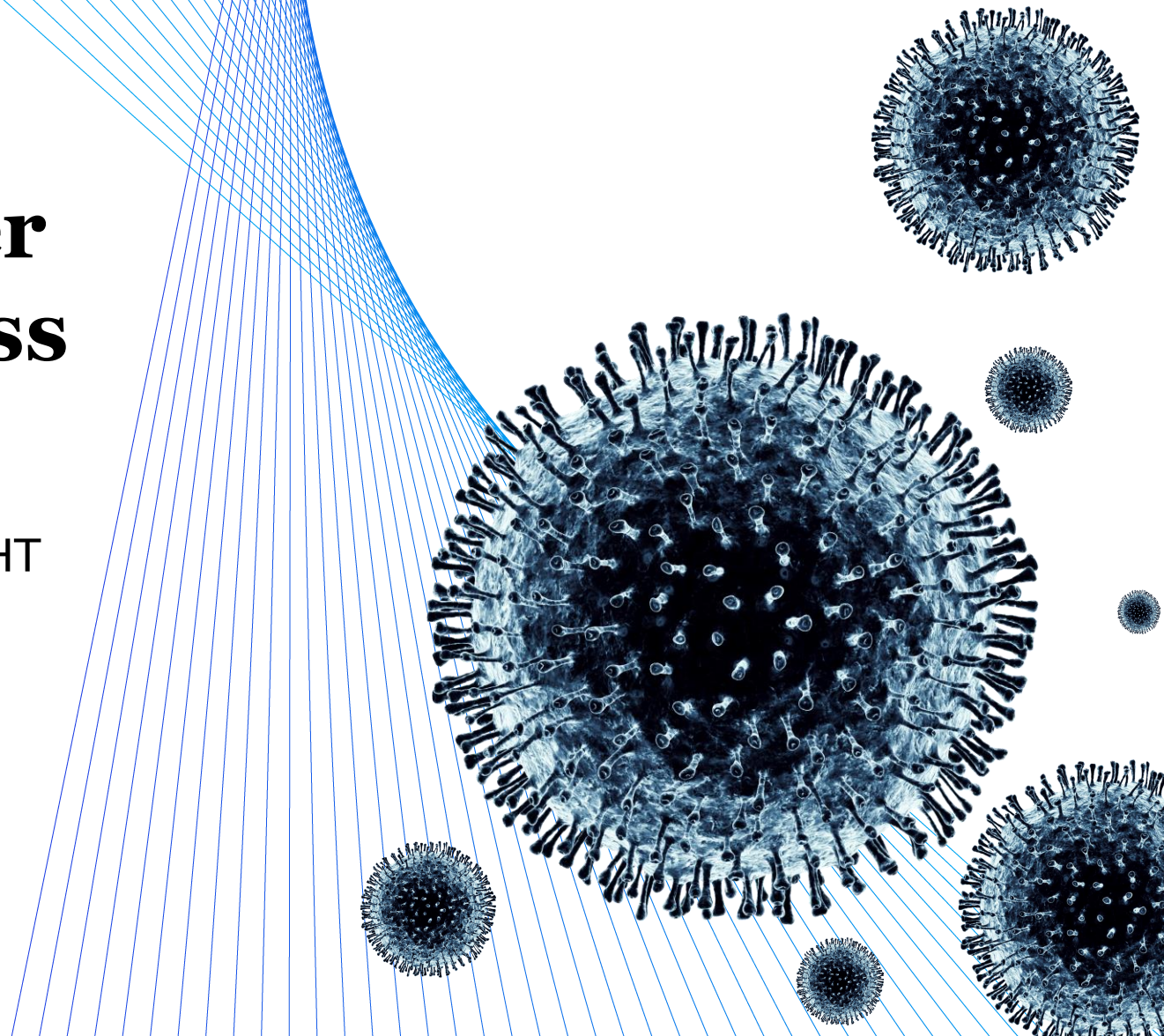
McKinsey & Company

COVID-19 Crisis: US Healthcare Provider and Payer Preparedness

Chapter 5 – Checklists

DOCUMENT INTENDED TO PROVIDE INSIGHT AND BEST PRACTICES RATHER THAN SPECIFIC CLIENT ADVICE

Updated: March 17, 2020



Solving the humanitarian challenge is the top priority. Much remains to be done globally to prepare, respond, and recover, from protecting populations at risk, to supporting affected patients/ families/ communities, to developing a vaccine. To address this crisis, countries including the US will need to respond in an evidence-informed manner, leveraging public health infrastructure and proactive leadership.

This document is meant to help with a goal: provide a summarized fact base on the disease to date, insights on potential scenarios, and potential actions US healthcare providers and payers may consider.

In addition, we have developed a broader perspective on implications for businesses across sectors that can be found here: https://www.mckinsey.com/business-functions/risk/our-insights/covid-19-implications-for-business**.** This supplemental material discusses implications for the wider economy, businesses, and employment; and sets out some of those challenges and how organizations can respond in order to protect their people and navigate through an uncertain situation.

For all formal guidance, you can find **up-to-date information at CDC's COVID-19 website**, with a section specific to healthcare professionals: https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/index.html

Table of contents

Chapter 1 – Epidemiology and Scenarios

Chapter 2 – Provider Implications

Chapter 3 – Payer Implications

Chapter 4 – Federal Actions

Chapter 5 – Checklists

Appendix

Detailed checklist: Surge (care) capacity

Checklist

Non-Exhaustive

Surge (care) capacity

- ❑ Estimate the maximum capacity for admissions based on availability of beds, clinical workforce, and adaptability of facility space
- ❑ Identify potential care areas for patient overflow for diagnostic holding or potential COVID-19 ward (e.g., auditorium, gym, PT treatment space, lobby, space for outdoor tents, parking lot)
- ❑ Establish protocols for utilizing alternative sites for patient evaluation / treatment:
  - ❑ Activation triggers for establishing alternate sites
  - ❑ Outsourcing care of non-critical patients to appropriate alternative treatment sites (e.g., adapt outpatient departments for inpatient use, home care for low-severity illness, connecting patients with social needs to community-based services organizations, hoteling)
  - ❑ Establishing a contingency plan for inter-facility patient transfer; verify availability and resources required for patient transportation
- ❑ Coordinate with other area hospitals on referral protocols and clarify your facility's position within broader geographic network
- ❑ In coordination with public health authorities and other area health systems, identify additional sites that can be converted to patient care units (e.g., hotels, schools, community centers, gyms); develop operational plans (staffing, equipment, supplies, etc.)
- ❑ Coordinate with health authorities, neighboring hospitals and private practitioners to define roles and responsibilities for each member of the local healthcare network to ensure continuous provision of essential medical services throughout the community
- ❑ Activation trigger and plan for initiating facility lock-down and/or limited access and entry

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Detailed checklist: Clinical workforce (1/2)

COVID-19 risks exacerbating the current national shortage of healthcare (nursing) workers

Shifts in staffing supply

- ❑ Develop clear action plan for staffing to ensure full coverage in case of demand surge (e.g., reduced workforce supply, increase demand from disease), including plans for:
  - ❑ Recruiting and training additional labor
  - ❑ Uptraining or cross-training personnel for appropriate specialty skill set
  - ❑ Ensuring adherence to union/labor contracts (e.g., liability insurance, temporary licensing)
  - ❑ Delivering just-in-time training where appropriate
  - ❑ Identifying local support measures (e.g., travel, childcare, care for family members) to enable staff flexibility for shift reassignment and longer working hours

Monitoring and protecting workforce health

- ❑ Consider extra safe-guards/isolation for staff who are pregnant, immunocompromised, cannot wear PPE for extended periods or are the sole caregiver of dependents from treating high risk/COVID-19 individuals
- ❑ Establish protocols and processes for employees around:
  - ❑ Monitoring (e.g., self-monitoring with delegated supervision, active monitoring for fatigue and ulcers from extended PPE wear) and reporting protocol
  - ❑ Rapid detection and evaluation (e.g., when symptomatic)
  - ❑ Quarantining enforcement protocol (inpatient and at-home)
- ❑ Deploy latest CDC/public health recommendations on means, need and duration for continuously monitoring employee symptoms
- ❑ Ensure effective systems of behavioral health support and self-care to mitigate / address healthcare workforce fears, distress, anxiety and fatigue

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Detailed checklist: Healthcare workforce (2/2)

COVID-19 risks exacerbating the current national shortage of healthcare workers

Training and education

- ❑ Using CDC guidelines, source / develop and deliver accurate training to all care personnel on COVID-19 response protocol in multiple formats, including:
  - ❑ Clinical guidelines (e.g., screening, treatment, isolation, transport)
  - ❑ Patient communication scripting around diagnosis, evaluation, treatment, quarantine etc.
  - ❑ Infection control (e.g., donning/doffing PPE, N95 fittings, waste management)
  - ❑ Laboratory specimen collection and handling/waste
  - ❑ Hospital Incident Command System
  - ❑ Internal and external communication
- ❑ Regularly test and strengthen staff knowledge on critical areas
  - ❑ Periodic relevant drills / exercises for pathogen outbreak
  - ❑ Individual knowledge assessments
  - ❑ Surveillance testing (e.g., “mystery patient”)

General human resource management

- ❑ Update hospital staff contact list
- ❑ Establish system to monitor staff absenteeism, including contingencies for ill or injured
- ❑ Ensure staff are up-to-date on appropriate immunizations

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Detailed checklist: Clinical operations (1/7)

Pre-diagnosis > Diagnosis > Confirmed

Establish COVID-19 telephonic support

- ❑ Assess existing telephonic support capabilities against potential COVID-19 surge scenarios and strengthen offering accordingly (e.g., establish a call center, increase number of nursing staff providing telephone support, extend hours of operation or setup a 24/7 advice line); outsource support as needed
- ❑ Establish talking points / scripts and update clinical workflow to support accurate identification of COVID-19 patients that need to stay home, be evaluated via telehealth or visit a hospital (e.g., algorithm, standardized screening questionnaire)
- ❑ Use text-based communication to encourage patients to use available advice lines if they become ill with symptoms of respiratory infection
- ❑ Text patients to encourage registration to access resources (e.g., patient portal, email) that regularly release updated CDC / public health guidelines on COVID-19
- ❑ Develop protocol for proactively contacting and screening patients via phone prior to their scheduled visits

Develop COVID-19 web- and app-based resources / services

- ❑ Evaluate existing web- and app-based capabilities and create a library of resources specific to COVID-19; consider partnering with a vendor to address capability gaps
- ❑ Develop a system for regularly creating and updating web- and app-based content according to the latest CDC / public health COVID-19 guidelines
- ❑ Create a web- and app-based patient self-assessment tool based on CDC guidelines; if possible, enable automatic provider and care manager notification of potential COVID-19 cases and connect patients to appropriate resources (e.g., scheduling for telehealth, in-home or facility care according to symptom severity)
- ❑ Encourage patient registration to access digital resources and communication channels (e.g., email, chat, patient portal) through which they regularly receive communication regarding COVID-risk factors and when to seek care
- ❑ Develop questionnaire or other web- / app-based tool to proactively screen patients prior to scheduled appointments

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Source: CDC, expert interviews

Detailed checklist: Clinical operations (2/7)

Pre-diagnosis > Diagnosis > Confirmed

Connect patients to telemedicine services[1]

- ❑ Estimate increased telehealth demand based on potential COVID-19 surge scenarios and strengthen services according to anticipated need and telehealth best practice (e.g., increase staffing of skilled providers); consider outsourcing support where appropriate
- ❑ Train telehealth staff on latest CDC / public health guidelines as well as best practice on delivery of quality, equitable care
- ❑ Develop protocol to support streamlined e-triage, booking, diagnosis, consultation and patient monitoring for suspected COVID-19 patients
- ❑ Refer telehealth patients to phone, web and home health resources, as well as relevant social services, to support on-going monitoring and support

Partner with home health providers[1]

- ❑ Ramp up in home health services, where home health treatment operations already exist, according to anticipated demand based on potential COVID-19 surge scenarios
- ❑ Train home health service providers on latest CDC / public health infection prevention and control guidelines, including appropriate engineering (e.g., proper use of PPE) and administrative (e.g., sick leave policy) controls to leverage
- ❑ Provide home health service providers a set of protocol / tools to support patient screening / evaluation (e.g., questionnaire, triage algorithm) and proactively address concerns that may put patients at risk for hospital admission
- ❑ Establish system to accurately identify and connect patients to home health support based on care needs, location and other quality factors
- ❑ Work with home health service providers to deliver diagnostic testing, when it becomes available

1. Does not incorporate potential reimbursement implications

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Source: CDC, expert interviews

Detailed checklist: Clinical operations (3/7)

Pre-diagnosis > Diagnosis > Confirmed

Engage local agencies

- ❑ Collaborate with local, state and federal public health agencies to develop / enhance existing COVID-19 health education campaigns, ensuring consistency of messaging
- ❑ Work with local businesses and community organizations to develop accurate, tailored health education material on COVID-19 for local distribution / circulation via multiple channels (e.g., agency announcements, social media)
- ❑ Partner with local employers to strengthen employee access to and utilization of your remote services and resources
- ❑ Utilize local agency communication channels to help direct patients to COVID-19 provider resources and support (e.g., adviceline, web portal, telehealth)

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Source: CDC, expert interviews

Detailed checklist: Clinical operations (4/7)

Pre-diagnosis | **Diagnosis** | Confirmed

Outpatient/ ambulatory services

- ❑ Consider designating separate COVID-19 ambulatory testing sites
- ❑ Consider establishing a dedicated cadre of staff to operate testing sites; train staff on appropriate collection and handling of specimen, per CDC / public health guidelines
- ❑ Develop protocol based on pre-diagnostic criteria to route patients to designated diagnostic testing sites (e.g., identify patients exhibiting respiratory symptoms before or immediately upon arrival to a facility and direct to a nearby diagnostic site)
- ❑ Develop a combination of engineering and administrative controls to minimize patient and workforce exposure to suspected cases, e.g.,
- ❑ Ensure only essential personnel enter patient rooms and use PPE per CDC guidelines
- ❑ Collect all diagnostic respiratory specimen from patients with suspected COVID-19 within patients' room within CDC guidelines
- ❑ Establish protocol to route patients to the nearest available emergency room or an inpatient facility based on clinical guidelines as set by the CDC
- ❑ Regularly clean and disinfect environmental surfaces and clinical equipment with EPA-registered hospital-grade disinfectant; ensure all personnel with cleaning responsibilities understand the contact time for selected products and are appropriately fit-tested per CDC guidelines
- ❑ Reschedule non-urgent outpatient visits as necessary

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Source: American Academy of Emergency Medicine, American Board of Internal Medicine, American College of Physicians, American College of Surgeons, American Medical Association, American Nurses Association, Anesthesia Patient Safety Foundation, CDC, Infectious Disease Society of America, Society for Academic Emergency Medicine, Society for Healthcare Epidemiology for America, Society of Critical Care Medicine,, Society of Hospital Medicine

Detailed checklist: Clinical operations (5/7)

Pre-diagnosis | **Diagnosis** | Confirmed

Emergency room/ pre-triage services

- ❑ Establish protocol with emergency medical services to ensure drivers contact receiving EDs or facilities of incoming patients
- ❑ Design and install engineering controls to reduce or eliminate exposures to suspected cases pre-triage, e.g:
  - ❑ Designated patient entrance and lavatories
  - ❑ Separate diagnostic area outside the ED (e.g., tent) to perform all screening and clinical assessments
  - ❑ Physical barriers / partitions to guide patients through triage areas
  - ❑ Dedicated rooms for evaluation and triage (e.g., outdoor tents)
  - ❑ Dedicated patient-care equipment
- ❑ Consider implementing systems to rapidly triage and discharge patients that do to require emergency care, within EMTALA guidelines
- ❑ Discharge suspected COVID-19 patients cases not requiring hospitalization home (in consultation with state / local public health authorities) as appropriate
- ❑ Establish protocol with operations team to proactively signal when the hospital is nearing and should stop receiving patients
- ❑ Regularly clean and disinfect environmental surfaces and equipment in patient rooms with EPA-registered hospital-grade disinfectant; ensure all personnel with cleaning responsibilities are trained and appropriately fit-tested

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Source: American Academy of Emergency Medicine, American Board of Internal Medicine, American College of Physicians, American College of Surgeons, American Medical Association, American Nurses Association, Anesthesia Patient Safety Foundation, CDC, Infectious Disease Society of America, Society for Academic Emergency Medicine, Society for Healthcare Epidemiology for America, Society of Critical Care Medicine,, Society of Hospital Medicine

Detailed checklist: Clinical operations (6/7)

Medical society recommendations

Pre-diagnosis | Diagnosis | **Confirmed**

General inpatient care

- Maintain patient isolation
- Collect information and specimens in the isolated location
- Perform procedures in patients', whenever possible
- Discharge patients when clinically indicated

- ❑ Establish protocol for patient visitation and develop systems for training, managing and monitoring visitors (e.g., visitor log book, limits to patient movement around the facility)
- ❑ Evaluate the extent to which operational bandwidth will be reduced under COVID-19 surge scenarios in response to anticipated increases in in-room/portable testing for COVID-19 patients; arrange for additional capacity accordingly (e.g., radiology technicians, portable radiology machines)
- ❑ Consider establishing safety protocol to support rapid identification of confirmed COVID-19 patients among healthcare staff (e.g., color-coded bedding and linen)
- ❑ Develop protocol for discharging patients according to CDC / public health guidelines in consultation with local or state public health departments, particularly under circumstances where Transmission-Based precautions should be continued
- ❑ Educate patients and members of their household on the latest CDC / public health guidelines on post-discharge transmission-based isolation precautions until the risk of secondary transmission is thought to be low – per CDC guidelines
- ❑ Reschedule elective admissions / services as necessary

Surgical/procedural/ anesthesia inpatient care

- Designate an OR/procedure room for COVID patients
- Ensure infected cases do not recover in the PACU, only in OR/procedure room/ICU

- ❑ Prepare for the likely reduction of block utilization based on COVID-19 surge scenarios due to a need for patients to recover in OR / procedure room
- ❑ Plan for increased PACU nurse coverage to support recovery in OR / procedure room
- ❑ Assess ability to perform procedures in patients' rooms, if clinically indicated
- ❑ Develop and train designated staff on COVID-19 protocol for patient transport from the OR to floor / ICU room

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization..

Source: American Academy of Emergency Medicine, American Board of Internal Medicine, American College of Physicians, American College of Surgeons, American Medical Association, American Nurses Association, Anesthesia Patient Safety Foundation, CDC, Infectious Disease Society of America, Society for Academic Emergency Medicine, Society for Healthcare Epidemiology for America, Society of Critical Care Medicine,, Society of Hospital Medicine

Detailed checklist: Clinical operations (7/7)

Medical society recommendations

Pre-diagnosis Diagnosis **Confirmed**

Workforce and environ-ment

- ❑ Deliver education/training to clinical and nursing workforce to prevent transmission of COVID-19, including refresher training on latest CDC/public health guidelines
- ❑ Pilot and establish dedicated hospitalist team to supporting COVID-19 admissions and workflow improvement
- ❑ Consider establishing color coded linens and designated areas for COVID-19 supplies
- ❑ Clean and disinfect environmental surfaces and equipment in patient rooms with EPA-registered hospital-grade disinfectant regularly; ensure all personnel with cleaning responsibilities are trained and appropriately fit-tested
- ❑ Consider establishing safety protocol to support easy identification of staff dedicated to supporting COVID-19 patients (e.g., color-coded uniforms)
- ❑ Establish a contingency plan for low-supply specialties (e.g., pediatric neurosurgery) in the case of reduced capacity

These perspectives are intended to build from CDC and other guidance based on operations and management experience. Please continue to consult CDC, state health department, and medical societies for the most up-to-date guidance. These perspectives are not intended as a substitute for professional medical advice, diagnosis or treatment. Any actions impacting clinical decisioning should be vetted by the appropriate quality committees within your organization.

Source: American Academy of Emergency Medicine, American Board of Internal Medicine, American College of Physicians, American College of Surgeons, American Medical Association, American Nurses Association, Anesthesia Patient Safety Foundation, CDC, Infectious Disease Society of America, Society for Academic Emergency Medicine, Society for Healthcare Epidemiology for America, Society of Critical Care Medicine,, Society of Hospital Medicine

Detailed checklist: Address needs of vulnerable populations (1/3)

Establish COVID-19 telephonic support/ care navigation

- ❑ Confirm that all patients can access telephonic services during **operating hours** (e.g., services are offered outside normal business ours, 24/7)
- ❑ Verify patient access to a phone and **updated phone numbers** on file
- ❑ Provide reminders and refresher training on the delivery of **culturally competent care**

Develop COVID-19 web- and app-based resources/ care navigation

- ❑ Identify members of your patient population with limited **access to internet** (e.g., mobile home owners), for development of alternative proactive communication measures
- ❑ Consider patient **digital / tech literacy** and develop protocol to support access where necessary
- ❑ Provide reminders and refresher training on the delivery of **culturally competent care**
- ❑ Consider the traditions of **local religious and ethnic groups** that could affect the spread of COVID-19 (e.g., communal gathering for weekly mass services)

Connect patients to telemedicine services

- ❑ Provide **coverage for telemedicine** and communicate about changes in coverage
- ❑ Develop protocol to support the **uninsured seeking care** via telemedicine (e.g., subsidized care)
- ❑ Take proactive actions to support **building comfort accessing telemedicine** platforms (e.g., self-help website, dedicated phone line for web- and app-based assistance)
- ❑ Train providers in mental health first aid and **culturally competent** care via telemedicine

Additional considerations across telephonic, web, app and telemedicine offerings:

- ❑ Have you developed opt out communication options for phone, web and app to enable pushing information to people who are less likely to independently seek out health recommendations?
- ❑ Have you developed multilingual capabilities to ensure access for non-English speaking populations? Have you considered outsourcing translation capacity, where needed?

Detailed checklist: Address needs of vulnerable populations (2/3)

Partner with Home Health Agencies

- ❑ Evaluate and take targeted action where concerns exist regarding the quality and type of workforce delivering home health services, as well as risks to that workforce
- ❑ Tran providers in mental health first aid and culturally competent care (incl. via telemedicine)

Engage local agencies

- ❑ Considered connecting with local radio services to jointly develop public health messaging, also in collaborating with local or state public health authorities
- ❑ Considered leveraging community-based organizations (e.g., faith-based institutions) to support screening and diagnostic care, and to be a trusted source of information for clients / patients / members
- ❑ Partner with community-based organizations to spread appropriate protection best practices and support education and outreach to vulnerable populations

Additional considerations across pre-diagnostic actions:

- ❑ Have you developed and executed plans to identify high-risk areas that need to be targeted for alternate communication and outreach interventions, e.g.
  - ❑ Senior community centers: Have you considered how to balance the risk of high density senior centers with the need to ensure social support and management of existing clinical conditions in this population?
- ❑ Have you developed plans to support vulnerable member groups if you decide to close community locations (e.g., gyms, senior community centers)?

Detailed checklist: Address needs of vulnerable populations (3/3)

Outpatient/ Ambulatory sites

- ❑ Consider community/mobile testing sites to increase access to testing
- ❑ Develop, in partnership with public health authorities, clear messaging on when, where and how to access ambulatory testing sites in multiple communication formats (e.g., visual, audio, text, braille)
- ❑ Provide access to language/culturally appropriate resources (e.g., education materials, community health workers, translators) to ensure individuals understand and receive necessary supports
- ❑ Ensure providers are conscious and trained to minimize bias/discrimination when delivering services to individuals (to minimize potential mistrust with communities)

- ❑ If individuals require self-isolation or quarantine:
  - ❑ Train or hire providers (e.g., community health workers, social workers) to collaborate with patients in order to determine their ability to self-isolate and adhere to self-quarantine recommendations for the recommended period
  - ❑ Where self-isolation is recommended, proactively connect patients with community services to mitigate the potential impact of lost income and mobility (e.g., food home delivery, income assistance, referrals to social service benefits, streamlined processing of social service benefits applications)
  - ❑ Establish systems to support / ensure vulnerable populations can maintain connectedness (e.g., phone, internet, cable)
  - ❑ Establish systems to ensure continuous access to telehealth supports for mental / physical needs and means of maintaining prescriptions (e.g., prescription delivery)
  - ❑ Identify safe and appropriate quarantine sites (e.g., connect with local hotel, hostels, school gyms etc.) if additional quarantine sites need to be created

Detailed checklist: Supply chain

Protective, treatment, infrastructural and environmental supplies at-risk off supply shortages

Commodity list

Diagnostics	❑ ELISA and RT PCR Laboratory equipment and reagents
Health facilities infrastructure and equipment	❑ Ambulance with air isolation system for transport of contagious patients ❑ Mobile, basic diagnostic X-ray system ❑ Portable ultrasound ❑ Resuscitator ❑ Medical triage/treatment/isolation facilities ❑ Packaging transport substance for viral sample transport ❑ N95 respirators ❑ Surgical masks ❑ Ventilators with portable and back-up power supply
Personal protective equipment	❑ Gloves ❑ Goggles ❑ Gown, disposable, with elastic wrists ❑ Medical mask ❑ Eye/face shield ❑ Safety box/sharps container (must be labelled "Biohazard") ❑ Scrubs
Drugs and medical consumables	❑ Paracetamol ❑ Oxygen ❑ Infusion compound (Ringer's lactate) ❑ Antibiotics (for secondary infections)
Medical equipment	❑ Infrared thermometer ❑ Laryngoscope, adult, child set ❑ Endotracheal tubes ❑ Oxygen concentrator ❑ Oxygen face mask with reservoir bag, disposable ❑ Pulse oximeter, portable ❑ Sample collection tubes ❑ Swabs for buccal sample collection ❑ Swabs for nasal sample collection ❑ Syringes: 0.5 ml autodestruct (AD) and 5 ml reuse prevention (RUP) ❑ Infusion setup including pump
Advanced	❑ Home Care Kits for home isolation of asymptomatic cases or mildly symptomatic ❑ Antivirals/vaccines (in development)
Disinfection consumables/ biohazardous waste management	❑ Alcohol based hand-rub ❑ Bag, disposable for biohazardous waste PPE and clinical waste without sharps ❑ Body bags (suitable for burial or cremation) ❑ Disinfectant ❑ Soap, surgical ❑ Set: mask, gel and soap for targeted population ❑ Chlorine

Source: Adapted from job aid for Respiratory/ Droplet-borne disease, supplemented with information from WHO Disease Commodity Package (Feb 7 2020), CDC Coronavirus (Feb 27, 2020) and McKinsey supply chain and infectious disease expert interviews