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COVID-19 pandemic compendium

A collection of emerging practices and guide for resiliency

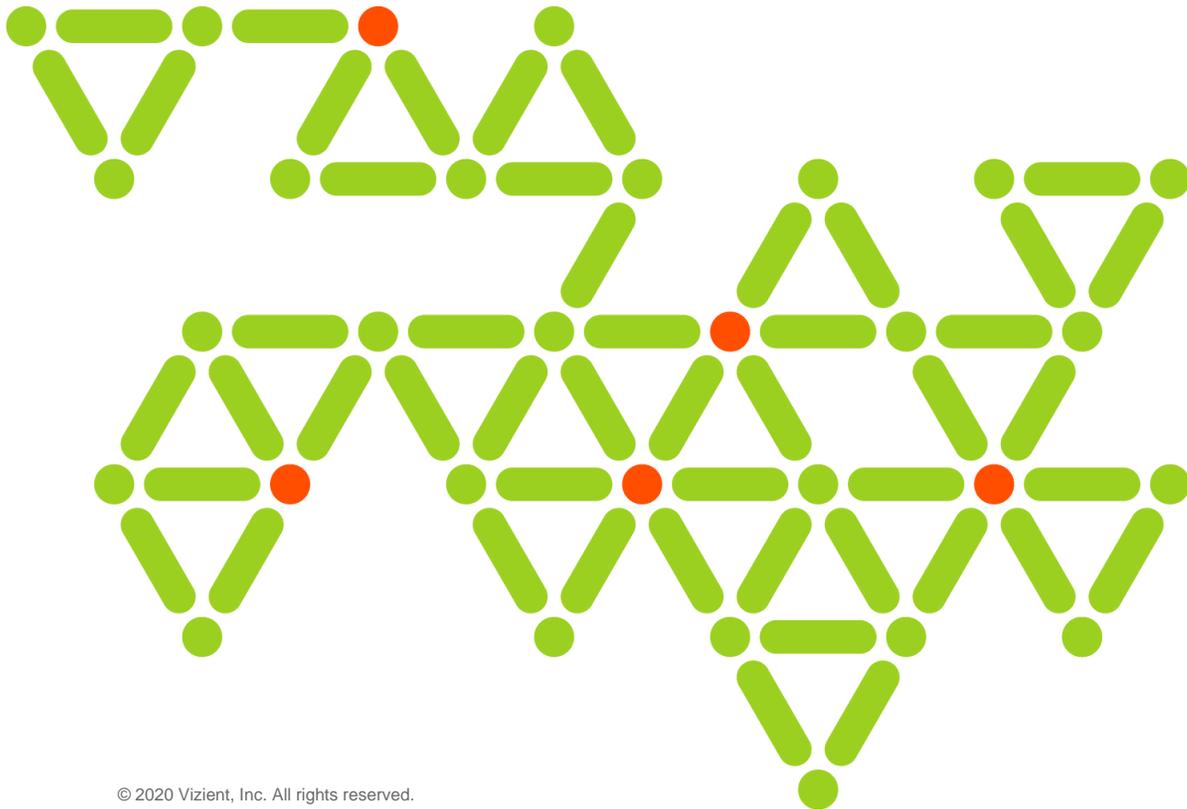September 2020

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Background

As the COVID-19 pandemic began in the United States, Vizient® adopted a comprehensive approach to collecting and sharing the latest evidence and emerging practices from Vizient's membership, literature, suppliers, medical societies and regulatory bodies.

This compendium compiles and summarizes the COVID-19 journey so far. The intent is to provide a resource for members to prepare for the next wave, should it come. Collaboration amongst Vizient members to share evidence, policies and procedures proved that agility, adaptability and transparency are key traits as health care organizations face this pandemic as well as future disasters.

Currently, the future is uncertain regarding COVID-19. Will there be a resurgence? Will a vaccine be available? Will the virus mutate? The uncertainty is troubling, but the ability of our members and health care organizations worldwide to adapt and share knowledge is key to defeating COVID-19.

"We learned to say, okay, today is a different day from yesterday and we will learn and adapt as best as we can."

Ilseung Cho, MD
Chief Quality Officer
NYU Langone Health System

COVID-19 emerging practices

Vizient organized emerging practices across six key categories:

1. Managing critical supplies
2. Emerging clinical practice and evidence
3. Testing
4. Surge capacity
5. Staff impact
6. Visitation

We developed practice trends highlighting links to critical regulatory and governmental agency information from March through May of 2020. Since the virus impacted different members in different ways, the document is organized to show strategies by stage.

Key strategy roadmaps were developed for each of the following three stages: prepare, respond and recover. A comprehensive chart is seen in Appendix A, and each individual category chart is displayed in their respective sections.

Managing critical supplies

Early in 2020, it became clear that the U.S. was facing a **critical shortage** of supplies, from personal protective equipment (PPE) to pharmaceuticals. Vizient has worked with members and suppliers to optimize supply and help members navigate the current environment where shortages remain. PPE supply remains a concern for hospitals as states reopen and elective surgeries and procedures resume while the virus continues to spread.

"N95 and PAPRs need to be prioritized for aerosol generating procedures… anything that's going to induce cough and the production of a small aerosol."

Mark Rupp, MD
Medical Director
Department of Healthcare Epidemiology
University of Nebraska Medical Center

Early Learnings

Organizations had to quickly adapt to a dwindling supply, especially **N95 masks**. Regulatory agencies revised standards around **reuse and sterilization procedures for N95 masks** that enabled health care organizations to develop procedures for safe reuse, or to develop sterilization procedures that cleaned the masks between use. Organizations also had to negotiate with many unknown suppliers due to an emerging '**gray market' of suppliers**, including counterfeit supplies. Vizient developed recommendations for helping organizations vet suppliers and potential supplies.

Now that hospitals are re-opening service lines, they must work to ensure PPE supplies are adequate for any future COVID-19 surges as well as daily operational needs. Leading organizations are also developing plans for **supply chain resiliency**, looking for alternate sourcing models including direct-to-manufacturer contracts and sharing purchasing requirements for large container load shipping.

Shortages continue in some areas, including N95 masks, bouffant caps, shoe covers and surgical gowns. Many organizations are exploring **reusable gowns** as a result of continuing disposable gown shortages.

Steps to prepare and build resilience

- Continue to monitor your **PPE burn rate** and evaluate current **PPE conservation strategies**. Balance needs that are now different than **just-in-time inventory strategies** you have relied on in the past.

- Establish an **analytics infrastructure**: Calculate your anticipated surge and know your bed and capital capacity, inventory usage and status of PPE and medications for patients requiring mechanical ventilation, renal replacement therapies and respiratory treatments.

- Assess your **preparedness level** by referencing regulatory resources such as the CDC Checklist for Consumables, Durable Medical Equipment and Supplies and ICU Preparedness Checklists.

- **Review regulatory guidance and ensure compliance**. These include FDA on Emergency Use of Medical Devices, CDC Strategies for N95 Respirators Optimization, CDC Strategies to Optimize the Supply of PPE and Equipment, CDC Considerations for Pharmacies during COVID-19 and the USP Statement for pharmacy guidance on use of PPE for compounding of sterile products.

- **Collaborate with infection prevention**, **occupational health** and **clinical/operational leadership** to develop organizational policies and procedures on extending the life, supply and the reuse of PPE and critical supplies. Include policies on **visitation**, **PPE centralization**, **patient cohorting** strategies and **device collection procedures** as you calculate your PPE burn rate.

- Monitor and secure needed inventory items and **critical capital** impacted by increased demand, such as ventilators. Consider developing relationships with several suppliers.

Updates as of August 2020

Although most PPE supplies have stabilized, shortages continue in some areas including N95 masks and disposable gowns. Vizient continues to work with current and new suppliers to ensure vital supplies remain available.

Organizations have also started to work locally with suppliers to create more local supply chains, or work with other organizations, such as other Vizient members, to create shared resource pools on items such as ventilators.

Resources from Vizient

- Managing Critical Supplies Emerging Practices (Last updated May 2020)

- PPE Conservation Impact Calculator*

- Emerging Practice Summary on N95 Conservation

- COVID-19 Supply Projections: Planning for Reduction, Reuse and Reprocessing

- Supply Chain Guide to Resuming Elective Procedures

- COVID-19 Supply Listing*

- Clinical Resource Guide

- Guide to Face Masks and Respirators

- Guide to Decontamination Methods

- Decontamination Systems EUA Updates

* Available exclusively to Vizient members

COVID-19 Stage	Managing critical supplies: Key strategies
Prepare	- Establish an analytics infrastructure: calculate your anticipated surge with Sg2 COVID-19 Surge Demand Calculator; know your bed and capital capacity, inventory usage and status of PPE and medications for patients requiring mechanical ventilation, renal replacement therapies and respiratory treatments. - Assess preparedness level by referencing CDC Checklist for Consumables, Durable Medical Equipment and Supplies and ICU Preparedness Checklists. - Review regulatory guidance, including: FDA on Emergency Use of Medical Devices, CDC Strategies for N95 Respirators Optimization, CDC Strategies to Optimize the Supply of PPE and Equipment, CDC Considerations for Pharmacies during COVID-19 and the USP Statement for pharmacy guidance on use of PPE for compounding of sterile products. - Collaborate with infection prevention, occupational health and clinical/operational leadership to develop organizational policies and procedures on extending the life, supply and the reuse of PPE and critical supplies. Include policies on visitation, PPE centralization, patient cohorting strategies and device collection procedures. - Monitor and secure needed inventory items and critical capital impacted by increased demand, such as ventilators. Consider developing relationships with several suppliers.
Respond	- Purchase from alternative suppliers if available. Utilize community resources and Vizient COVID-19 Supplies and Equipment Sharing list server* to request supplies you need or offer your surplus inventory. Review GHX cross reference list for managing critical supply alternatives. - Operationalize internal plan for PPE conservation as outlined in CDC Strategies to Optimize the Supply of PPE and Equipment regulatory guidelines. - Implement extended life or reuse strategies for N95 masks. Where no alternative exists, isolation gowns may also be reprocessed and reused per ALM guidelines. - Vet alternate source suppliers to ensure they are reliable using FBI Notice recommendations. Request a product sample for inspection by IC department before committing to bulk orders. - Deploy methods to optimize capacity for ventilating patients: utilizing vents based on clinical care guidelines, re-purposing anesthesia gas machines and CPAP machines.

Recover	• Identify constraints within supply chain availability and develop a plan to mitigate these opportunities.
	• Evaluate your supply chain resilience for potential second wave of outbreak. Factor these findings into your reopening facilities and services plans.
	• Prepare for requests to offset your organization's financial loss. Identify opportunities, finalize analytics and determine key players to implement cost reduction initiatives.
	• Reorient/train staff on proper use of PPE according to non-crisis level, evidence-based standards of care.
	• Establish solutions for long-term supply accuracy, completeness and resiliency.

* Available exclusively to Vizient members

Emerging clinical practices and evidence

During the initial COVID-19 outbreak, standard evidenced-based clinical practices were being challenged. This was due to the high influx of patients, the severity of symptoms and the resulting strain on the supplies and equipment needed to provide care.

"We do everything we can to avoid intubations, whether it's just the proning or making extensive use of high-flow nasal cannula."

Thomas Spiegel, MD
ED Medical Director
University of Chicago Medicine

Early learnings

There were many unknowns about the **virus**, the incubation period, airborne vs. droplet **spread** as well as asymptomatic transmission; and the information evolved rapidly. Most errored on the side of caution and assumed the worst, and keeping staff aware of these changes was essential. Those experiencing the early surges had a lot to learn quickly and needed to react immediately.

Clinical practices evolved over time with organizations learning more about the virus – beginning with relying on their internal infection disease specialists, then turned to regulatory agencies (state and federal) and finally began looking to their colleagues. Everyone was of the mindset that 'we are all in this together' and that **sharing** was essential. From February through April, Emory Healthcare, the University of Washington Medicine, Miriam Hospital/Lifespan, the University of Chicago Medicine, Nebraska Medicine, Rush University Medical Center and the University of Colorado shared their insights and experiences during special COVID-19 webinars (Appendix B).

Care delivery was altered due to the virus. In March, the Trump Administration announced an emergency declaration under the Stafford Act and the National Emergencies Act, broadening the Centers for Medicare and Medicaid Services (CMS) support for **telehealth** benefits under the 1135 waiver authority and the Coronavirus Preparedness and Response Supplemental Appropriations Act. The number of virtual visits began to increase rapidly. **Elective surgeries** were cancelled, and staff was re-deployed to areas with resource constraints such as emergency departments (EDs), intensive care units and testing sites.

Steps to prepare and build resilience

- Develop a **comprehensive communication plan**. Most health care organizations have a **disaster preparedness plan** including an incident command center – one Vizient member suggested that everyone should know where the plan resides and have more than one back-up. Be sure to consider whether a particular type of disaster could compromise access to your plan.

- Determine the clinical practices which changed during the pandemic and should remain, revert to pre-COVID-19 or be retired.

- Examine strategies that were not effective and understand the root cause of why.

- Conduct a quality review of clinical outcomes negatively impacted during the pandemic and develop risk reduction strategies to prevent future failures.

Updates as of August 2020

The pandemic continues to grow and has exceeded all previous expectations for infections and deaths. These infections have been more prevalent in the southern U.S. during the summer months and are expected to rise again in the fall and winter in the north.

The data concerning the infectivity of children has varied, leading to a national debate on re-opening schools. There appears to be an airborne component to the virus, specifically in cramped, poorly ventilated locations.

Compared to the first half of the year, access to testing has improved, though turnover of test results has been prolonged.

During the 3rd quarter of the year, some medications for the treatment of hospitalized patients have shown promise, leading to lower mortality.

COVID-19 causes a coagulopathy with some presenting symptoms noted due to clots occurring in both venous and arterial locations. A greater number of asymptomatic patients have been recognized than before and are a source of infection.

There are several vaccines presently in third phase human trials with a presumptive distribution during the end of Q4 or Q1 2021.

Resources from Vizient

- Emerging Clinical Practices and Evidence Emerging Practices (Updated May 2020)

- Emerging Practices Dashboard*

- Data insights briefs*
  Listed under data insights briefs tab

- Vizient/Sg2 guidance for resumption of electively scheduled surgery and procedures in the COVID-19 era

* Available exclusively to Vizient members

Resources from the industry

- New England Journal of Medicine Resource Page

- Severe COVID-19 (*New England Journal of Medicine*, May 15, 2020)

- CDC Guidance on Home Care

COVID-19 Stage	Emerging clinical practices: Key strategies
Prepare	- Preparing with universal masking in hospitals in the COVID-19 era - Preparing for COVID-19: Long-term care facilities, nursing homes - CDC - Guidance on how medical resources should be allocated to patients - Guidance to help health care facilities best prepare for resuming elective surgery
Respond	- Interim guidance on infection prevention and control for patients with suspected/confirmed COVID-19 - Guidance for severe acute respiratory infection clinical management with suspected COVID-19 - Airway Management in a patient with suspected coronavirus - Caring for critically ill patients with novel coronavirus - Treatment guidelines developed to inform clinicians how to care for patients with COVID-19 - Care of the imminently dying patient - Guidance for ambulatory care settings in response to community spread of COVID-19
Recover	- Study findings on e-consult appropriateness in health systems - Implementing home care for patients not requiring hospitalization for COVID-19 - Guidance for triage of non-emergent surgical procedures

Testing

Testing for COVID-19 was created quickly and has continued to evolve throughout the pandemic. During the initial outbreak of COVID-19, the standard evidenced-based clinical practices were being challenged. This was due to the high influx of patients, the severity of symptoms and the resulting strain on the supplies and equipment needed to provide care.

Early learnings

Like many other health care supplies, **testing supplies** quickly saw **shortages** arise due to world-wide demand. This included sample collection swabs, storage and transport media, processing reagents, test kits and lab-based instruments that run the tests. These supply issues are slowly being addressed by manufacturers and **test availability** has significantly improved. However, as **criteria** for those seeking testing is eased, demand is again significantly exceeding supply. The **accuracy of available tests** is also an ongoing issue.

"With robust in-house testing, we know the status on all patients discharging from the inpatient side. For patients who test positive and are stable for discharge per this algorithm, we provide strict return precautions and we established close follow-up with the infectious disease department through virtual health."

Sophia Peng, MD
Assistant Professor of Medicine
Division of Hospital Medicine
University of Colorado

The **marketing process** has initially prioritized early availability to meet supply demands over rigorous proof of accuracy. High false negative rates have been reported for polymerise chain reaction (**PCR) testing**. Some of this may be attributed to technical difficulty in obtaining a good sample specimen rather than the actual test itself. Some is also likely attributable to variable viral shedding from different tissues at different times in the disease course. These types of issues are not novel, but timely data describing test characteristics are needed to help hospitals understand the limitations of their testing protocols. **Antibody tests** have also seen a wide range of accuracy issues. The **FDA** released a revised guidance on May 5 to provide more oversight of antibody tests. The new approach will require commercial manufacturers to submit **emergency use authorization (EUA) requests** with validation data within 10 to 14 days and follow specific performance guidelines for test validation before marketing. These policies should help prevent **fraudulent marketing claims** and improve standardization of antibody tests. However, there still remain many unknowns concerning how to appropriately use antibody tests in the overall care paradigm.

Steps to prepare and build resilience

- Continually evaluate EUAs and information sources on diagnostic testing accuracy.

- Determine diagnostic tests that will be used as well as the appropriate supplies.

- Establish a primary and secondary vendor for tests and supplies.

- Estimate testing demand and capacity.

- Develop a triage and testing algorithm based on testing capacity.

- Develop plans to staff for triage and test follow-up activities.

- Establish plan for alternative testing sites with specimen courier service.

- Provide publicly available education on testing (how, when and where to seek testing).

Updates as of August 2020

Manufacturers and commercial labs continue to apply for FDA authorization and ramp-up production of test kits. Accuracy of tests and turnaround times remain the biggest challenges for health care organizations and communities seeking to establish wide-spread testing infrastructure. Many communities and health care organizations have established devoted testing resources for health care workers suspected of being exposed in order to speed return to work. For the latest on FDA Emergency Use Authorizations, including tests that have had their EUAs revoked, please see the FDA FAQs on SARS-COV-2 testing.

Resources from Vizient

- Testing Emerging Practices (Updated May 2020)
- Emerging Practices Dashboard*
- Data insights briefs*
  Listed under data insights briefs tab

* Available exclusively to Vizient members

Resources from the industry

- FDA FAQs on SARS-COV-2 testing (includes approved Emergency Use Authorizations and revoked Emergency Use Authorizations

COVID-19 Stage	Testing: Key strategies
Prepare	• Determine diagnostic tests that will be used as well as the appropriate supplies • Establish a primary and secondary vendor for tests and supplies • Estimate testing demand and capacity • Develop a triage and testing algorithm based on testing capacity • Develop plans to staff for triage and test follow-up activities • Establish plan for alternative testing sites with specimen courier service • Provide publicly available education on testing (how, when and where to seek testing)
Respond	• Implement testing triage protocols and stand-up alternative sites • Establish or utilize telemedicine for persons under investigation and/or meeting testing criteria • Establish postmortem procedure specimen criteria
Recover	• Monitor for updates to CDC, CMS, FEMA, FDA and other laboratory guidance publications • Assess response and revise testing preparedness policies and procedures • Determine future testing needs and capacity • Establish a hierarchy of vendors for increased access to molecular and serological tests • Establish testing protocols for resuming non-emergent non-COVID-19 care pathways, including symptomatic screening and laboratory testing for staff and patients • Optimize test protocols based on test availability, expected test frequency and timing, test turn-around-time, accuracy and local COVID-19 prevalence rates

Surge capacity

Managing capacity during the pandemic was one of the top concerns of Vizient members. Many organizations quickly **transitioned** their ambulatory practices into COVID-19 testing centers and began to use telehealth services extensively to manage patient care **virtually** to reduce exposure risk. Some organizations also established virtual assistants, such as chat bots, to help patients determine if they were eligible for testing.

"The information that we're pulling together from polling questions, survey questions, mining and external data sources allows us to provide the membership with up-to-date data and information that not only reflects what you've seen published from the broader Hopkins dataset, but also information that's coming through our list servers and coming through our questions."

Beth Godsey, MBA, MSPA
Vice President, Advanced Analytics and Informatics
Vizient

Early learnings

Within acute hospital settings, organizations established **incident command centers** to streamline communications and manage scenario planning. Organizations began to **cohort** patients into COVID-19+, COVID-19 patients under investigation and non-COVID-19 patients to reduce exposure. Organizations also worked with local authorities to establish public testing centers and field hospitals to **expand capacity** as needed. Patient **forecasting** was used to determine needs for PPE, critical supplies and staffing.

Steps to prepare and build resilience

Within the surge capacity emerging practices, resources are available that help organizations manage surge, prepare for future surges and reopen normal operations, such as elective surgeries, while also complying with Federal Opening Up America Again guidelines. Strategies for surge capacity include:

- Review your organization's surge plans, what worked and what did not. Develop strategies to improve.

- Survey staff to hear from the front line regarding COVID-19 surge issues and work with staff to develop new strategies for the next surge or future disasters.

- Utilize the CDC checklist for a systematic review of ways to prepare and build resilience CDC preparedness-checklists.

Updates as of August 2020

One of the main things learned is that the virus surges have varied across the country, and perhaps in areas that were not expected in the beginning.

Many speculated that the virus would not be able to survive in warmer climates, but what may not have been considered was that people move inside in warmer climates when the temperatures soar, causing new surges in the sunbelt states.

As of August 2020, the curve is flattening in many areas of the country after summer surges. However, everyone is concerned about resurgence, especially as the traditional flu season approaches.

Preparedness, now more than ever, will be a critical component to combating further COVID-19 outbreaks.

Resources from Vizient

- Surge Capacity Emerging Practices (Updated May 2020)

- Emerging Practices Dashboard*

- Sg2 COVID-19 Surge Demand Calculator

- Data insights briefs*
  Listed under data insights briefs tab

* Available exclusively to Vizient members

Resources from the industry

- FEMA COVID-19 Response

- FEMA COVID-19 Hospital Resource Package

- FEMA Incident Command System resources

- Kaiser Permanente Coronavirus Mitigation Playbook

- HHS Public Health Emergency Planning Handbook

- Rush University Medical Center Command Center Structure

| COVID-19 Stage	Surge capacity: Key strategies
Prepare	• Stand-up an incident command center to streamline communications, increase awareness and initiate clinical and operational scenario planning. • Understand inventory of digital tools and telehealth capabilities to optimize health care delivery through virtual care and alternative sites of care. • Develop workforce contingency plans to re-deploy, educate, cross-train and mitigate staffing shortages. • Create investments or partnerships in predictive analytics tools to help estimate impact, prepare and allocate resources.
Respond	• Scale technology tools to screen/triage patients and staff. • Repurpose urgent care/lab/ambulatory locations to test patients to help divert from ED and hospitals. • Build regional coalitions with state or local public health departments, public/private sectors and community coalitions to collaborate on surge response.
Recover	• Maintain regional coalitions to build surveillance roadmaps and reactivation plans to prepare and respond to pent-up demand, such as resuming elective surgeries, identifying COVID-designated hospital(s). • Build public relations/communications plan in collaboration with legal to re-build trust, safety and resilience with the public and workforce to return to facilities for care. • Sustain telemedicine to meet consumer demands and patient engagement. • Optimize workforce staffing to ensure all clinicians are working at top of license. • Activate relationships with post-acute care providers to designate specialized alternative sites of care (i.e. step-down units, designate COVID-19 only nursing homes, recovery centers) and expand home-based care offerings (i.e. telemedicine nursing visits, oxygen and pulse oximetry monitoring, frequent and rapid communication).

Staff impact

U.S. health care workers have been the true heroes during the response to COVID-19. Through overwhelming surges of sick patients, shortages of PPE and even **staff furloughs** due to the cancellation of elective procedures, health care organizations have focused on keeping staff safe and offering resources to help them stay **resilient** during the pandemic. The experience of a health care workers in the U.S. so far has very much been determined by location. Some health care organizations have seen empty EDs and never experienced a patient surge, leading to furloughs, while others have been overwhelmed by sick patients. Those organizations with heavy surges needed to hire **contract workers** to manage high patient volume. Health care organization are now working to balance needed staff with expected volume as operations have resumed, including having to plan for any COVID-19 surges that may come. Ensuring that health care workers have the support they need, especially **mental health resources**, has been a priority for many health care organizations as many health care workers have reported anxiety, depression and **PTSD** as a result of working during the COVID-19 pandemic.

Early learnings

Health care organizations considered **staffing plans** as part of their surge preparation strategies. It was critical to ensure that staffing would remain adequate to support surges and that infection control procedures could be implemented to protect staff. This planning was complicated due to an unprecedented shortage of PPE, including N95 masks and disposable gowns, that is required to keep health care workers safe. Government regulatory agencies revised policies around PPE usage, enabling sterilization techniques that helped organizations stretch their PPE resources further. To protect PPE supplies, stores were centralized, and procedures were changed to allow staff to wear equipment longer than possible before the pandemic.

Health care organizations also developed protocols for isolating and **quarantining staff members** who were exposed to COVID-19, which led to staff shortages in some locations. Organizations developed policies for return-to-work for exposed and COVID-19 positive staff, developing testing processes to help speed results. The CDC developed guidelines for critical infrastructure workers to guide the **return-to-work process**.

For many staff members, the concern was their own health, or that of loved ones at home. Policies were developed to protect **vulnerable** and immunocompromised staff members, including reassigning them to areas with less exposure or allowing them to opt out of work. For staff members with **immunocompromised** or older family
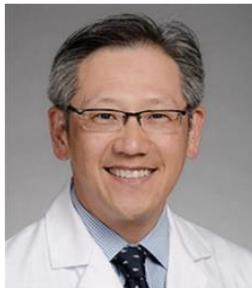
"Creating a network of colleagues, throughout the system that can be there for each other. We created a, sort of like, Craigslist type of site where people could volunteer and offer up their services really for anything that our colleagues may need."

Christophe Kim, MD, MBA, SFHM
Associate Medical Director, Quality, Patient Safety and Clinical Efficiency
University of Washington Medical Center

members at home, many organizations helped identify temporary housing locations to reduce exposure, including vacant hotels. Organizations also secured child or elder care services for staff who were working to ensure staff availability.

For areas with hospitals impacted by the cancellation of elective surgeries and procedures, staff members were furloughed or trained and redeployed to high volume areas. To ensure adequate staffing could be maintained nationwide, regulatory agencies relaxed guidelines around licensing, credentialing and scope of practice to speed onboarding processes.

Steps to prepare and build resilience

- Create and review labor pool of clinical and non-clinical staff. Evaluate what training is needed for redeployment to new areas, as well as deployment back to original work areas.

- Create consistent, frequent and transparent communication to all staff.

- Initiate emergency privileging and credentialing and licensure processes to ensure compliance with legal and regulatory waivers and requirements.

- Create a support system for your workforce. Develop relationships with providers of local housing, food, childcare and eldercare resources to support staff.

- Establish protocols for monitoring staff symptoms and develop return-to-work policies for COVID-19 positive staff.

- Ensure mental health resources are readily available for all staff. Encourage staff members to reach out for help without stigma.

- Review the impact the pandemic may have had on your staff turnover rate. Ensure that employee satisfaction and engagement measures move forward even in times of crisis.

Updates as of August 2020

Prior to the COVID-19 impact, burnout and PTSD were already prevalent among many health care workers – the pandemic has exasperated this for many staff members. Now more than ever, services to support the mental and physical well-being of staff members is important. Strategies for self-care are not only important for frontline staff, but also for ancillary staff and leaders who have felt the mental stress of the pandemic on their work and personal lives.

Resources from Vizient

- Staff Impact Emerging Practices (Updated May 2020)

- Clinical workforce well-being playbook: Leading through the COVID-19 crisis and beyond

- Emerging Practices Dashboard*

- Evaluation of COVID-19 Emergency Blanket Waivers for Health Care Providers

- Guide to nursing documentation in periods of significant patient surge throughout the COVID-19 pandemic

- Guidance to OSHA's Interim Enforcement Response Plan for Coronavirus Disease 2019 (COVID-19)

* Available exclusively to Vizient members

Resources from the industry

- Interim Guidance for Implementing Safety Practices for Critical Infrastructure Workers

- Guidance to States to Extend Capacity for Health Care Workforce

- AMA Senior Physician COVID-19 Guidebook

COVID-19 stage	Staff impact: Key strategies
Prepare	• Create labor pool for clinical and non-clinical staff for redeployment and re-training. • Create consistent, frequent and transparent communication to all staff. • Prepare and assess ability for non-clinical staff to work from home. • Initiate emergency privileging and credentialing and licensure processes to ensure compliance with legal and regulatory waivers and requirements. • Develop relationships with providers of local housing, food, childcare and eldercare resources to support staff. • Establish protocols for monitoring staff symptoms and develop return-to-work policies for COVID-19 positive staff.
Respond	• Review and revise workforce compensation strategies as needed. • Implement committee for fair resource allocations. • Monitor staff needs daily. • Provide mental health and suicide prevention support for all staff. • Establish relationships with partners and organizations to gather information and monitor strategies for emerging practices.
Recover	• Assess burnout, stress, PTSD and well-being of staff. • Strategize to reengage all staff to strengthen trust and loyalty. • Create an environment in which people can freely express and discuss feelings and process pain. Allow staff time and space to grieve and heal as needed. • Prepare physical safety readiness: Social distancing, workspace reconfiguration, extend procedural room hours, PPE use/supply. • While preparing for layoffs, some organizations are evaluating outsourcing options (e.g. coding/documentation, analytics, IT, supply chain).

Visitation

As COVID-19 began to spread in communities across the country, restricting visitation was an early area of focus. With the lack of understanding of how contagious the virus was and the mechanism of spread, most organizations began to **restrict** visitation as one mechanism to prevent to the spread.

Early learnings

"Transparency and communication were important. Patients want transparent, frequent and consistent communication. They want details, and they want data. They want to hear from providers, specifically their physicians."

Kellie Goodson, MS, CPXP
Program Director
Vizient

Organizations began restricting access into their facilities by implementing **limited entry** points. Open entrances required visitors to be **screened** and mandated to comply with PPE requirements. **Vendor** access was also restricted. To reduce facility-based transmission, visitors were not allowed in rooms of **persons under investigation** (PUIs) or COVID-19 positive patients. Other visitors not allowed were persons with a fever or other cold/flu-like symptoms and minors under the age of 16. Many organizations implemented temperature checks at all entrances and enforced mask wearing. People over the age of 70 with **chronic conditions** were strongly discouraged from visiting. To not break the bond between patients and families, many organizations implemented video chats to allow families to see hospitalized patients, even those patients at end of life.

Typical restrictions included:

- Emergency department patients – only one visitor (at least until stable).

- Surgery patients – only one visitor (at least until stable).

- Obstetric patients – only one partner **or** one birth support person.

- Nursery and Neonatal Intensive Care Unit (NICU) patients – only birth parent **or** support person.

- Patients at the end-of-life – up to two visitors.

- Patients with disruptive behavior, altered mental status or developmental delays – only one family member **or** support person who is key to their care and safety.

- Minors under the age of 18 – only one parent or support.

Organizations evaluated and implemented **student restrictions** for nursing and medical students. In support of preventing the spread of COVID-19, organizations developed discharge processes to require negative results before recovering patients could be discharged to skilled nursing facilities.

Steps to prepare and build resilience

- Review current **visitation policies** and adjust as needed to ensure safe access to facilities to prevent spread of disease

- Partner with patients and families to understand their needs and develop strategies together to ensure communication lines are open and frequent

- Optimize technology to support strategies for safe access and robust patient and family engagement

Updates as of August 2020

In areas of the U.S. in which the number of COVID-19 positive patients has started to decline, or the curve was being flattened, health care organizations moved from restricted to limited visitation.

Elective surgeries are ramping up and communities are beginning to open but continue to closely monitor the situation. Visitation at many skilled nursing facilities remains restricted to protect vulnerable populations.

Resources from Vizient

- Visitation Emerging Practices (Updated May 2020)

- Emerging Practices Dashboard*

- Data insights briefs* Listed under data insights briefs tab

- Connecting with Patients During COVID-19: A Panel Discussion

* Available exclusively to Vizient members

Resources from the industry

- CMS expanded recommendations on visitation

- CDC Guidelines for Nursing Homes

- University of Wisconsin created a toolkit

- Johns Hopkins Medicine

COVID-19 Stage	Visitation: Key strategies
Prepare	• Revise visitation/family presence policy to prevent transmission • Use patient and family centered care principles and engage patient and family advisors/partners to co-develop necessary changes
Respond	• Communicate changes to visitation policy clearly • Limit entry into facility • Screen all staff, visitors and vendors
Recover	• Revise visitation/family presence policy for the new normal (example from UC Davis)

Appendix A: Comprehensive key strategy roadmap

COVID-19 stage: Prepare

Managing critical supplies	Emerging clinical practices and evidence	Testing	Surge capacity	Staff impact	Visitation
• Establish an analytics infrastructure: calculate your anticipated surge with Sg2 COVID-19 Surge Demand Calculator; know your bed and capital capacity, inventory usage and status of PPE and medications for patients requiring mechanical ventilation, renal replacement therapies and respiratory treatments. • Assess preparedness level by referencing CDC Checklist for Consumables, Durable Medical Equipment and Supplies and ICU Preparedness Checklists. • Review regulatory guidance, including: FDA on Emergency Use of Medical Devices, CDC Strategies for N95 Respirators Optimization, CDC Strategies to Optimize the Supply of PPE and Equipment, CDC Considerations for Pharmacies during COVID-19 and the USP Statement for pharmacy guidance on use of PPE for compounding of sterile products. • Collaborate with infection prevention, occupational health and clinical/operational leadership to develop organizational policies and procedures on extending the life, supply and the reuse of PPE and critical supplies. Include policies on visitation, PPE centralization, patient cohorting strategies and device collection procedures. • Monitor and secure needed inventory items and critical capital impacted by increased demand, such as ventilators. Consider developing relationships with several suppliers.	• Preparing with universal masking in hospitals in the COVID-19 era • Preparing for COVID-19: Long-term care facilities, nursing homes - CDC • Guidance on how medical resources should be allocated to patients • Guidance to help health care facilities best prepare for resuming elective surgery	• Determine diagnostic tests that will be used as well as the appropriate supplies • Establish a primary and secondary vendor for tests and supplies • Estimate testing demand and capacity • Develop a triage and testing algorithm based on testing capacity • Develop plans to staff for triage and test follow-up activities • Establish plan for alternative testing sites with specimen courier service • Provide publicly available education on testing (how, when and where to seek testing)	• Stand-up an incident command center to streamline communications, increase awareness and initiate clinical and operational scenario planning. • Understand inventory of digital tools and telehealth capabilities to optimize healthcare delivery through virtual care and alternative sites of care. • Develop workforce contingency plans to re-deploy, educate, cross-train and mitigate staffing shortages. • Create investments or partnerships in predictive analytics tools to help estimate impact, prepare and allocate resources.	• Create labor pool for clinical and non-clinical staff for redeployment and re-training. • Create consistent, frequent and transparent communication to all staff. • Prepare and assess ability for non-clinical staff to work from home. • Initiate emergency privileging and credentialing and licensure processes to ensure compliance with legal and regulatory waivers and requirements. • Develop relationships with providers of local housing, food, childcare and eldercare resources to support staff. • Establish protocols for monitoring staff symptoms and develop return-to-work policies for COVID-19 positive staff.	• Revise visitation/family presence policy to prevent transmission • Use patient and family centered care principles and engage patient and family advisors/partners to co-develop necessary changes

COVID-19 stage: Respond

Managing critical supplies	Emerging clinical practices and evidence	Testing	Surge capacity	Staff impact	Visitation
• Purchase from alternative suppliers if available. Utilize community resources and Vizient COVID-19 Supplies and Equipment Sharing listserv to request supplies you need or offer your surplus inventory. Review GHX cross reference list for managing critical supply alternatives. • Operationalize internal plan for PPE conservation as outlined in CDC Strategies to Optimize the Supply of PPE and Equipment regulatory guidelines. • Implement extended life or reuse strategies for N95 masks. Where no alternative exists, isolation gowns may also be reprocessed and reused per ALM guidelines. • Vet alternate source suppliers to ensure they are reliable using FBI Notice recommendations. Request a product sample for inspection by IC department before committing to bulk orders. • Deploy methods to optimize capacity for ventilating patients: utilizing vents based on clinical care guidelines, re-purposing anesthesia gas machines and CPAP machines.	• Interim guidance on infection prevention and control for patients with suspected/confirmed COVID-19 • Guidance for severe acute respiratory infection clinical management with suspected COVID-19 • Airway Management in a patient with suspected coronavirus • Caring for critically ill patients with novel coronavirus • Treatment guidelines developed to inform clinicians how to care for patients with COVID-19 • Care of the imminently dying patient • Guidance for ambulatory care settings in response to community spread of COVID-19	• Implement testing triage protocols and stand-up alternative sites • Establish or utilize telemedicine for persons under investigation and/or meeting testing criteria • Establish postmortem procedure specimen criteria	• Scale technology tools to screen/triage patients and staff. • Repurpose urgent care/lab/ambulatory locations to test patients to help divert from ED and hospitals. • Build regional coalitions with state or local public health departments, public/private sectors and community coalitions to collaborate on surge response.	• Review and revise workforce compensation strategies as needed. • Implement committee for fair resource allocations. • Monitor staff needs daily. • Provide mental health and suicide prevention support for all staff. • Establish relationships with partners and organizations to gather information and monitor strategies for emerging practices.	• Communicate changes to visitation policy clearly • Limit entry into facility • Screen all staff, visitors and vendors

COVID-19 stage: Recover

Managing critical supplies	Emerging clinical practices and evidence	Testing	Surge capacity	Staff impact	Visitation
• Identify constraints within supply chain availability and develop a plan to mitigate these opportunities. • Evaluate your supply chain resilience for potential second wave of outbreak. Factor these findings into your reopening facilities and services plans. • Prepare for requests to offset your organization's financial loss. Identify opportunities, finalize analytics and determine key players to implement cost reduction initiatives. • Reorient/train staff on proper use of PPE according to non-crisis level, evidence-based standards of care. • Establish solutions for long-term supply accuracy, completeness and resiliency.	• Study findings on e-consult appropriateness in health systems • Implementing home care for patients not requiring hospitalization for COVID-19 • Guidance for triage of non-emergent surgical procedures	• Monitor for updates to CDC, CMS, FEMA, FDA and other laboratory guidance publications • Assess response and revise testing preparedness policies and procedures • Determine future testing needs and capacity • Establish a hierarchy of vendors for increased access to molecular and serological tests • Establish testing protocols for resuming non-emergent non-COVID-19 care pathways, including symptomatic screening and laboratory testing for staff and patients • Optimize test protocols based on test availability, expected test frequency and timing, test turn-around-time, accuracy and local COVID-19 prevalence rates	• Maintain regional coalitions to build surveillance roadmaps and reactivation plans to prepare and respond to pent-up demand, such as resuming elective surgeries, identifying COVID-designated hospital(s). • Build public relations/communications plan in collaboration with legal to re-build trust, safety and resilience with the public and workforce to return to facilities for care. • Sustain telemedicine to meet consumer demands and patient engagement. • Optimize workforce staffing to ensure all clinicians are working at top of license. • Activate relationships with post-acute care providers to designate specialized alternative sites of care (i.e. step-down units, designate COVID-19 only nursing homes, recovery centers) and expand home-based care offerings (i.e. telemedicine nursing visits, oxygen and pulse oximetry monitoring, frequent and rapid communication).	• Assess burnout, stress, PTSD and well-being of staff. • Strategize to reengage all staff to strengthen trust and loyalty. Vizient: Clinical workforce well-being playbook - Leading through the COVID-19 virus and beyond • Create an environment in which people can freely express and discuss feelings and process pain. Allow staff time and space to grieve and heal as needed. • Prepare physical safety readiness: Social distancing, workspace reconfiguration, extend procedural room hours, PPE use/supply. • While preparing for layoffs, some organizations are evaluating outsourcing options (e.g. coding/documentation, analytics, IT, supply chain).	• Revise visitation/family presence policy for the new normal (example from UC Davis)

Appendix B: 2020 COVID-19 Vizient member webinars

Date	Webinar title, recording link and presenting organization(s)	Key takeaways (link)
Feb. 5	What Hospitals Need to Know Emory Healthcare Society for Healthcare Epidemiology of America (SHEA)	Key takeaways
March 11	Novel Coronavirus (COVID-19) Clinical and Supply Update Emory Healthcare University of Washington Medicine	Key takeaways
March 18	Managing the Initial Impact Miriam Hospital/Lifespan University of Chicago Medicine	Key takeaways
March 25	Pandemic Planning University of Washington Medicine Nebraska Medicine	Key takeaways
April 1	Organizing: Command Center, Staffing and Surge Capacity Rush University Medical Center University of Colorado	Key takeaways
April 8	COVID-19 Digital Innovations and PPE Management Strategies: What Does the Future Look Like? Providence Healthcare Yale New Haven Health	Key takeaways
April 15	Financial and Operational Impacts of COVID-19 + Special Session Medical University of South Carolina Health University of Washington Medicine	Key takeaways

Date	Webinar title, recording link and presenting organization(s)	Key takeaways (link)
April 22	Managing COVID-19 patients' post-acute event Rhode Island Hospital (Lifespan) University of Kentucky Albert B. Chandler Hospital Federal Emergency Management Agency	Key takeaways
April 29	Addressing staff resilience and PTSD during COVID-19 Mayo Clinic Rochester Vanderbilt University Medical Center	Key takeaways
May 6	Adapting to the new normal Cleveland Clinic	Key takeaways
May 13	Increasing patient and family confidence while ramping up University of California, Davis	Key takeaways
May 20	Supply chain leader's perspective: lessons learned New York-Presbyterian Hospital	Key takeaways
May 27	Roundtable discussion: moving forward through lessons learned during COVID-19 University of Chicago Medicine Nebraska Medicine University of Washington Medicine New York University, Langone Hospitals	Key takeaways

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